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ATTENTION: Guide Holders**March 31, 1994 Update to the GUIDE**

Reflecting Secretary O'Leary's focus on occupational safety and health, the Office of Occupational Safety is pleased to provide you with the latest update to the **DOE Interpretations Guide to OSH Standards**. The Guide was developed in cooperation with the Occupational Safety and Health Administration, which continued its support during this last revision by facilitating access to the interpretations found on the OSHA Computerized Information System (OCIS).

This update contains 123 formal interpretation letters written by OSHA. As a result of the unique requests received by the 1-800 Response Line, this update also contains 38 interpretations developed by DOE. This new occupational safety and health information adds still more important guidance to the four volume reference set that you presently have in your possession.

As with the last update, you are requested to follow the attached instructions on incorporating this update into your current set of binders. The feedback from those Guide holders who took a few minutes to fill out the questionnaire accompanying the last update was appreciated and suggested improvements incorporated where possible. It was reassuring to learn that many of you use the Guide regularly. The preference for maintaining a hard copy version along with an electronic version was stronger than we anticipated, too.

As mentioned in the last update, the entire Guide will soon be available on Technical Information Service (TIS), a new computer service containing occupational safety and health databases. This will permit users to rapidly search for information contained in the Guide. Any questions about the Guide should be directed to Raymond Rogers of the Technical Support Division, EH-312 at (301) 903-7331.

MASTER

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RECORD ID 1740

STANDARD NUMBER 1910.1045 (Appendix A)(III)(F)
INFORMATION DATE 870218

ABSTRACT Statements on the use of amyl nitrite pearls as an antidote to acrylonitrile poisoning are contained in Appendix A of 1910.1045. Appendices were included in the standard primarily for purposes of information. None of the statements contained therein should be construed as establishing a requirement not otherwise imposed by the main portion of the standard.

INTERPRETATION 29 CFR 1910.1045(Appendix A)(III)(F)

FEB 18, 1987

This is in response to your letter of December 17, 1986, to Mr. J, concerning the use of amyl nitrite pearls as an antidote for acrylonitrile poisoning.

As you noted in your letter, statements on using the pearls as an antidote are contained in Appendix A of the standard for acrylonitrile, 29 CFR 1910.1045. Appendices were included in the standard primarily for purposes of information. None of the statements contained therein should be construed as establishing a mandatory requirement not otherwise imposed by the main portion of the standard.

The amyl nitrite pearls are intended for use by persons properly trained in first aid in the period before medical aid can be obtained. If a qualified physician knows of an equal or better first aid substitute, the substitute may be used without any conflict with our regulations.

SOURCE LETTER

DEC 17, 1986

RE: 29 CFR 1910.1045-Appendix A, III. F. Special First Aid Procedures: Acrylonitrile (AN)

(Company), (Township), (City, State), requests clarification on the above referenced Standard. According to the information provided and required by the AN Standard, first aid kits containing an adequate supply (at least two dozen) of amyl nitrate pearls, each containing 0.3 ml, should be maintained at each site where acrylonitrile is used. The problem that the company is experiencing is basically two-fold.

- (1) a written prescription by a physician is required in order to obtain the pearls;
- (2) the local physicians and pharmacies do not supply this medication inasmuch as they have stated it to be "as many as 25 years old".

The position, as stated by the company physicians, is that from the standpoint of modern medicine there are presently far better and more effective medications commercially available than amyl nitrate pearls which they would prefer us to use. Furthermore, it is unclear on initial checking by them exactly where this medication can be procured. In this regard, I would appreciate any guidance/recommendations on this matter that you can provide.

RECORD ID

1257

STANDARD NUMBER

1910.1045; 1910.1045(j)(2)(iii); 1910.1045(j)(1); 1910.1045(b);
1910.1045(m)(2); 1910.1045(m)(3)

INFORMATION DATE

820217

ABSTRACT

End of shift showers are not mandatory when acrylonitrile is handled in a closed system. Employees must shower at the end of the work shift when they have worn protective clothing and equipment to protect them from contact with acrylonitrile.

INTERPRETATION

29 CFR 1910.1045; 1910.1045(j)(2)(iii); 1910.1045(j)(1); 1910.1045(b);
1910.1045(m)(2); 1910.1045(m)(3)

FEB 17, 1982

SUBJECT: Showering Requirements of the Acrylonitrile Standard, 29 CFR 1910.1045

This is in response to your memorandum dated January 14, 1982 (copy enclosed for reference).

When liquid acrylonitrile is handled in other than totally closed systems, and employees working with or around the liquid must wear impermeable protective clothing or other equipment because eye or skin contact may occur, then clearly, in accordance with 29 CFR 1910.1045(m)(2), the employees must shower at the end of the work shift. It is sound practice to establish a blanket, unconditional requirement for employees to shower in the described circumstances, because there is no practical way of knowing for sure that any given employee did not actually come into contact with the liquid at some time or other during the work shift.

Some employers, however, require employees working solely around totally closed system for handling acrylonitrile to wear impermeable protective clothing, on the off-chance that a break in the system might result in a "massive release" of acrylonitrile. We do not interpret 29 CFR 1910.1045(m)(2) to require these employees to shower at the end of the work shift if no break in the closed system occurred. Here there would be no sound basis for requiring the employees to shower at the end of the work shift since, if there were no break in the closed system, the employees obviously would not have been exposed to liquid acrylonitrile, and showering would be unnecessary. Moreover, it appears highly unlikely that a break in the system could occur without supervisory employees being aware of it. We do interpret 29 CFR 1910.1045(m)(2) to require that these employees shower at the end of the work shift, however, should a break in the closed system occur.

In order to expedite this information, we will address your inquiry about "massive release" in a separate memorandum.

SOURCE LETTER

JAN 14, 1982

SUBJECT: Request for Clarification of Reply to (Company A) from the Director of Health Standards Programs (1979) Pertinent to the Requirements of the Acrylonitrile Standard 1910.1045

The Area Office issued a citation to the (Company B) for failure to enforce showering by its exposed employees as required in standard 1910.1045(j)(1), (m)(2), and as discussed in the preamble to the standard (FR 45805). This plant secured a copy of a letter (enclosed) to (Company A) by the Director of Health Standards Programs (1979) which, in part, discussed showering requirements. Both companies have interpreted the letter content as stating that showering is not a mandatory requirement in the acrylonitrile standard. The (Company B) has filed a Statement of Intent to contest the citation issued by the Area Office.

It is requested that this office be provided with a prompt reply which clearly states the mandatory showering requirements of the acrylonitrile standard - 1910.1045(j)(1), (m)(2), and the preamble (FR 45805). A 30-day extension has been secured by the OSHA Solicitor to delay filing the contest and is pending on the reply from the National Office.

As an additional item, please note Item 2. of the letter which requests a definition for "unexpected massive release" pertinent to the situation described on Page 3.

DEC 2, 1981

SUBJECT: Clarification of the Acrylonitrile Standard

1. Showering Requirement

Attached is a letter from Mr. W to (Company A) stating:

"Showering at the end of the workshift which is required when the protective clothing or equipment is known, suspected or believed to have contacted liquid acrylonitrile."

This statement is in direct conflict with the standard, the preamble, and our information booklets.

1910.1045(j)(1)

"Where eye or skin contact with liquid AN may occur, the employer shall provide at no cost to the employee, and assure that employees wear, impermeable protective clothing...."

1910.1045(m)(2)

"The employer shall assure that employees wearing protective clothing or equipment for protection from skin contact with liquid AN shall shower at the end of the work shift."

Preamble 43 FR 45805

"The final standard contains a requirement for employees who have had or are suspected of having had skin contact with liquid AN to shower immediately after the contact is discovered. In addition, employees required to wear protective clothing to prevent skin contact with liquid AN are required to shower at the end of the shift."

Acrylonitrile Standard: Management's Role OSHA 3060, p. 13

"And you must make sure that employees wearing the protective clothing and equipment shower at the end of the work shift."

Acrylonitrile: Worker Health Alert OSHA 3059, p. 12

"Even if you don't think you have spilled acrylonitrile on your skin, you must shower at the end of your work shift to prevent skin irritation, contamination of your street clothes and accidental exposure of your family or friends."

We feel that Mr. W's letter is in error, and (Company A) should be so advised. (Company B) has also relied upon this letter and has not made showering mandatory. They were cited for this condition and have contested.

2. Definition of an "unexpected massive release."

An "emergency" as defined in the standard means:

"any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment which results in an unexpected massive release of AN."

The preamble states:

"The term "emergency", as used in the proposal, covered any release of AN above the ceiling limit. The breadth of this definition would have required the employer to implement the emergency procedures and notify the OSHA area office whenever the ceiling was exceeded. As was noted by several commentators, such a requirement would apply to many situations which could not truly be deemed as "emergencies" (Exs. 92: 149). In addition, we recognize that this would tend to lessen the employee's awareness of true emergency conditions if and when they did occur."

"Emergency" has been redefined, as in the vinyl chloride standard, to refer to a "massive release" of AN. The employer is best able to determine if an emergency exists in his facilities. His central obligation under the standard, which is to limit employees' exposures to AN is, therefore, supplemented by the requirement to take further action when emergency situations arise." (43 FR 45795)

The definition of "emergency" in the vinyl chloride (VC) standard is similar to that of the AN standard. The VC preamble states:

"the definition of emergency has been recast in terms of an unexpected massive release. The main objection to the section on emergency situations in the proposal was that, as the term was defined, many ordinary leaks or operations resulting in a small release of vinyl chloride would be considered emergencies. This was not the intent of the proposal." (39 FR 3589)

An actual incident illustrates the problem. On 2/12/81, an AN batch experienced control problems. The batch contents were vented into the vent system, rupturing the knock out point pot rupture disc and spilling onto the roof. Ventilation fans pulled AN vapors into the building, contaminating several production areas and the control room. AN concentrations in the control room were as follows:

4:55 a.m.	50 ppm
6:02 a.m.	35 ppm
7:09 a.m.	9 ppm

All nonessential personnel were evacuated, and others wore half-face respirators.

Around 2:00 p.m., a damaged SAN bottom valve was forced open using N₂ pressure. Mechanics observing this operation from the second floor experienced eye irritation due to high AN levels.

We feel that this situation constitutes an "emergency" as defined in the standard. However, the company did not consider it an emergency and did not report it. Guidelines should be developed on what constitutes an "unexpected massive release."

MAR 23, 1979

This is in response to Dr. R's letter of November 6, 1978 to Ms. K and in reference to Dr. H's letter of January 4, 1979 to you. I greatly regret the delay in reply.

The first question set forth in Dr. R's letter pertains to the alarm system required under paragraph 1910.1045(i)(2) of the acrylonitrile standard. This paragraph requires a general alarm to be installed to alert employees when exposures exceed the ceiling limit. As mentioned in the preamble (45803), the release of acrylonitrile above the ceiling limit is not always "an emergency"; however, the standard does require the installation of an alarm system, to be activated by the release of acrylonitrile above the ceiling limit.

The second question is related to the establishment of a specific method for fit testing of respirators. The standard does not a specific methodology for quantitative fit testing and left the selection of the test method to employers. For your information and convenience, I am enclosing a list of references which may prove valuable for your purpose. This list is included in Los Alamos report #LA- 6084-MS, available from National Technical Information Service, U.S. Department of Commerce, 5285 Port Regal Road, Springfield, Virginia 22151.

The third question is associated with mandatory showering. This mandatory showering consists of two provisions:

1. Immediate showering which is required when direct skin or eye contact occurs or when permeable clothing become wetted with acrylonitrile (paragraphs (j)(2)(iii) and (m)(3)).
2. Showering at the end of the work shift which is required when the protective clothing or equipment is known, suspected or believed to have contacted liquid acrylonitrile. In such occurrences, decontamination of the protective clothing or equipment is required to precede this mandatory showering (paragraph (m)(2)).

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DOE Interpretations Guide to OSH Standards

July 1, 1992

RECORD ID 1659

STANDARD NUMBER 1910.1047(f)(1)(ii); 1910.1047(f)(1)(iii); 1910.1047(f)(1)(i)
INFORMATION DATE 880711

ABSTRACT This interpretation letter clarifies the use of respirators while unloading ethylene oxide (EtO) sterilization chambers. There may be some limited situations in which employees would need to be protected by respirators during their entry into and exit from large industrial sterilizers. A general exclusion of "sterilizer unloading" is not warranted. For most sterilizer unloading, a combination of engineering controls and work practices will enable employers to comply with the 5 ppm excursion limit.

(NOTE: There is no date provided on the interpretation letter, but the information contained in it appears to be consistent with the standard found in the 1990 edition of Title 29 of the CFR.)

INTERPRETATION 29 CFR 1910.1047(f)(1)(ii); 1910.1047(f)(1)(iii); 1910.1047(f)(1)(i)

(No date provided.)

This is a follow-up to the meetings and telephone calls held between you and members of my staff regarding your request for written clarification of the occupational Safety and Health Administration's (OSHA) position on the use of respirators while unloading ethylene oxide (EtO) sterilization chambers.

During the April 29 meeting you attended with OSHA officials as the Health Industry Manufacturer's Association (HIMA) representative, you requested OSHA to exempt certain ethylene oxide sterilizer unloading operations from meeting the excursion limit of 5 ppm EtO for 15 minutes through the utilization of engineering and work practices controls, as required by the OSHA standard at 29 CFR 1910.1047. You provided a draft compliance directive to the attendee's which set forth the criteria HIMA felt should be disseminated to OSHA field staff, for their use in "establishing infeasibility of compliance through engineering and work practice controls" during their inspection of facilities where EtO sterilizers are in operation.

OSHA feels the concerns you have raised have been specifically addressed in the preamble to the final standard for occupational exposure to ethylene oxide. The standard, at FR, Vol. 53, No. 66, states that while OSHA recognizes some potential for infeasibility in some operations, the Agency does not believe that it justifies a blanket finding of infeasibility for "sterilizer unloading" per se. The preamble contains a lengthy discussion of the Agency's recognition of the uniqueness of EtO exposures found in sterilization operations.

The preamble further states: "OSHA has evaluated HIMA's submittals and acknowledges that there may be some limited situations involving employee entry into large industrial sterilizers, under conditions of full capacity utilization and continuous sterilization cycles in which there may not be adequate time for offgassing of the sterilized materials in the sterilizer before employees are exposed. In these situations, as is the case with the current 1 ppm TWA, employees would need to be protected by respirators during their entry into and exit from the sterilizer. However, based on its review of the record including Meridian's site visits, OSHA does not believe that a general exclusion of "sterilizer unloading" is warranted. The Agency has determined that for most sterilizer unloading, a combination of engineering controls and work practices will enable employers to comply with the 5 ppm excursion limit."

Agency policy is that engineering controls are preferred over respiratory protection. Whenever the feasible engineering and work practices controls are not sufficient to reduce employee exposure to or below the excursion limit, they must nonetheless be instituted by the employer to reduce employee exposure to the lowest levels achievable and then be supplemented by the use of respiratory protective equipment. Work practice controls may include change in work schedules to extend the amount of time spent in offgassing of sterilized product. Employers in sterilizer operations, therefore, have the responsibility to install all feasible engineering and work practice controls to reduce employee exposures to the lowest levels achievable; and, if levels of EtO are still not below the PELs, they must then supplement these controls with employee respiratory protection. Although OSHA cannot tell our enforcement staff in advance when it is infeasible to control exposures completely through engineering

and work practice controls, the Agency does recognize that such situations can arise in specific workplace conditions. Where the controls installed can be shown by the employer, on a case-by-case basis, to be infeasible to achieve the excursion limit, the employer may then achieve compliance with the use of respiratory protection.

RECORD ID 1733

STANDARD NUMBER 1910.1047(h)(1); 1910.1047(h)(2); 1910.38; 1910.165
INFORMATION DATE 870113

ABSTRACT This interpretation letter clarifies requirements for emergency situations and alerting employees under 1910.1047. The ethylene oxide standard does not require an alarm system sensitive to one ppm. However, the standard does require monitoring and some method of alerting employees in an emergency.

INTERPRETATION 29 CFR 1910.1047(h)(1); 1910.1047(h)(2); 1910.38; 1910.165

JAN 13, 1987

This is in response to your letter of November 26 requesting clarification of 29 CFR 1910.1047-Occupational Exposure to Ethylene Oxide.

The Occupational Safety and Health Administration (OSHA) defines an emergency situation as "an occurrence such as but not limited to equipment failure, rupture of containers, or failure of control equipment that may result in an unexpected significant release of EtO. Quantities of EtO sufficient to produce acute toxic effects is exposed employees constitute such an emergency.

Section 29 CFR 1910.1047(h)(1)(i) requires written plans for emergency situations to be developed for each workplace where there is a possibility of an emergency. These plans shall be written in accordance with 29 CFR 1910.38 (Employee Emergency Plans and Fire Prevention Plans).

Paragraph (h)(2) of the standard requires some method of alerting employees of an emergency promptly. OSHA gives the employer the flexibility to choose any effective method of alerting employees, including communication systems, voice communication system, or a bell or other alarm. If the employer choose to install an emergency alarm system, the system must meet the requirements of 29 CFR 1910.165 (Employee Alarm System). However, it should be mentioned that 29 CFR 1910.165 (b)(5) states the following:

"For those employees with 10 or fewer employees in a particular workplace, direct voice communication is an acceptable procedure for sounding the alarm provided all employees can hear the alarm."

Therefore, a sophisticated alarm system might be unnecessary for some facilities such as small hospitals with only one EtO sterilizer.

In response to your specific questions:

Question 1:

Does an institution need to install an alarm sensitive down to one ppm PEL?

Answer:

At this time, the ethylene oxide standard does not require an institution to install an alarm system sensitive down to one ppm. However, the standard does require monitoring and some method of alerting employees of an emergency.

Question 2:

With the proposed court mandated institution of an STEL for EtO, would it be appropriate for an EtO alarm to measure EtO exposure down to the STEL of 10 ppm as originally proposed by OSHA?

Answer:

The current standard does not include an STEL therefore, at this time it would not be appropriate for an alarm system to measure down to 10 ppm. OSHA is still gathering data to support an STEL. This part of the standard is expected to be finished by March 1987.

Question 3:

If an employer has not complied yet with the provision, are they in violation of the ethylene standard?

Answer:

Yes, if an employer has not instituted an effective method of alerting employees they are in violation of the standard.

SOURCE LETTER

NOV 26, 1986

RE: 29 CFR Part 1910 Occupational Exposure to Ethylene Oxide

I would like clarification of specific aspects of the above-mentioned OSHA standard. My questions concern the following passages as published in the Federal Register on Friday, June 22, 1984.

Page 25797 Section (h) Emergency situations (2) Alerting employees:

"Where there is the possibility of employee exposure to EtO due to an emergency, means shall be developed to alert potentially affected employees of such occurrences promptly. Affected employees shall be immediately evacuated from area in the event that an emergency occurs."

Page 25783 Section (h) Emergency situations:

"Paragraph (h) of OSHA's final rule for EtO requires that employers develop written plans for emergency situations ... and that they develop methods of alerting employees of these situations and evacuating workers when necessary ... Employers must also be prepared to alert employees to evacuate the workplace in the event of an emergency ... These requirements are identical to the emergency situation requirements included in the EtO proposal (48 FR 17284, April 21, 1983.) The purpose of this provision is to protect workers from unexpected significant releases of EtO that pose an acute or other health risk."

Page 25874 Section (h) Emergency situations:

"Since EtO's odor warning threshold is about 700 ppm, and since this level is substantially above levels identified as having adverse health impacts, OSHA has chosen not to use odor threshold to define an EtO-related emergency defined in the final rule ... the term emergency covers those unexpected occurrences, such as failure of control equipment, that might produce a release of EtO of sufficient size to produce significant acute effects, including eye or respiratory irritation."

It is my understanding that the above-quoted passages underscore OSHA's position that employers with EtO gas sterilizers; such as hospitals, must have something that measures EtO specifically in order to determine an EtO emergency situation. Since the final standard specifically eliminates odor threshold as a method of defining an EtO-related emergency, an institution must therefore install some type of EtO specific "alarm system" in order to be able to define an EtO emergency situation and alert potentially affected employees promptly. Therefore, in order to be in compliance with this Federal standard, an institution must install an EtO alarm system.

I would also like clarification as to what OSHA considers an acceptable EtO low level sensitivity of such an alarm system. Specifically, does an institution need to install an alarm sensitive down to one ppm PEL? With the proposed court mandated institution of an STEL for EtO, would it be appropriate for an EtO alarm to measure EtO exposure down to the STEL of 10 ppm as originally proposed by OSHA?

Finally, it is my understanding that the provision for the installation of an "EtO alarm system" became binding and mandatory as of September 9, 1985. Therefore, all employees utilizing EtO gas sterilizers should have installed an "EtO alarm system" by that deadline. If an employer has not complied yet with the provision, they would be in violation of the above-mentioned Federal standard.

RECORD ID 2200

STANDARD NUMBER 1910.1047(b); 1910.1047(h)(2); 1910.1047(Appendix B)(III);
1910.1047(a)(1); 1910.1047(h)(1)
INFORMATION DATE 851028

ABSTRACT Appendix B of 29 CFR 1910.1047 includes special information on spill, leak, and disposal procedures for ethylene oxide (EtO). All spills should be immediately cleaned up with non-combustible absorbent material. All ignition sources should be removed. The area should be evacuated at once. Water should be used to wash down spill areas. Both the gaseous and liquid phase of EtO must be taken into consideration in the case of a spill. Local and state regulators should be contacted for disposal of waste content.

INTERPRETATION 29 CFR 1910.1047(b); 1910.1047(h)(2); 1910.1047(Appendix B)(III);
1910.1047(a)(1); 1910.1047(h)(1)
OCT 28, 1985

This is in response to your inquiry of September 6, regarding procedures for ethylene oxide (EtO) spills and ethylene oxide disposal.

All spills should be immediately cleaned up with non-combustible adsorbent material that is readily available on the market. OSHA does not specify any one type of spill cleaning and adsorbing material or equipment; however, water should be used to wash down spill areas.

Since EtO is a gas at room temperature, you are dealing with the gaseous form of EtO predominantly in your work air that will not produce a spill. For example, when EtO leaks from a high pressure vessel, the EtO would be in a liquid form for only a short period of time as it leaks into the air. It then quickly equilibrates with the room air to form a gas. Both the gaseous and, when necessary, the liquid phase of EtO exposure must be taken into consideration.

See enclosed excerpts from appendices of 29 CFR 1910.1047(Ethylene Oxide) which includes special information on OSHA spill, leak and disposal procedures for ethylene oxide, such as the presence of ignition sources, evacuation, protective equipment (including gloves, clothing and respirators), restriction on personnel and waste disposal.

OSHA does not have requirements for the amount of time contaminated material is placed into an aerator nor who would determine such times.

The Environmental Protection Agency (EPA) has jurisdiction in the disposal of toxic materials and hazardous waste. However, any disposal methods or procedures should limit EtO worker exposure levels at or below the present OSHA permissible exposure limit (PEL) for EtO of 1.0 ppm (1.0 part of EtO per million parts of air) as an 8-hour time-weighted average.

For further information concerning EtO disposal, you may contact EPA using the following address:

Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Enclosed is additional information you requested on EtO:

1. Excerpts from NIOSH Health Hazard Evaluation Report #HE 79-80, 82-746, Cobe Laboratories, Inc., September 1980.
2. Excerpts from NIOSH Technical Assistance Report No. TA 80-42, Hardin Memorial Hospital, September 1980.

3. Excerpts from NIOSH Health Hazard Evaluation Determination, Hospital Medical Corporation Report #He 78-70-528, September 1978.
4. Excerpts from NIOSH Health Hazard Evaluation Determination, Swedish Hospital, Report #78-42-498, May 1978.
5. Excerpts from NIOSH Health Hazard Evaluation Report, University of California, Moffitt Hospital, HHE #80-191-829, March 1981.
6. Excerpts from N. Irving Sax, Dangerous Properties of Industrial Materials, Sixth Edition, Van Nostrand Reinhold Co., New York, 1984.
7. Excerpts from Encyclopedia of Occupational Health and Safety, Vol. 1, 3rd edition, ILO, Geneva, 1983.
8. Excerpts from Good Hospital Practice: Ethylene Oxide Gas - Ventilation Recommendations and Safe Use, AAMI, March 1981.

For more information concerning EtO spills, you may contact the National Institute for Occupational Safety and Health (NIOSH) at the following address:

NIOSH
4676 Columbia Parkway
Cincinnati, OH 45226

SOURCE LETTER

SEP 6, 1985

SUBJECT: Ethylene Oxide Safety Procedures

Having recently come into place as Safety Officer for this organization I am involved in a program of hazard abatement in regards to Ethylene Oxide. Along these lines I ran across your name as a contact point to submit questions for OSHA consistent answers.

My question is in regards to liquid EO spillage and the proper means of disposal. Our emergency procedures are clear up to the point where the spillage is absorbed using "noncombustible materials" at which time our personnel are directed to dispose of the materials "...as directed by the safety officer."

1. Is the terminology "noncombustible material" relevant as most absorbent articles are made of paper or cloth?
2. Upon the absorption of the spillage, would placing contaminated material in an aerator for a specific amount of time be acceptable? If so, could the time be determined by competent persons in our S.P.D. or is there a time guide regardless of the amount of material involved?

RECORD ID

2312

**STANDARD NUMBER
INFORMATION DATE**1910.1047(j)(1)(iii); 1910.1047(j)(1)(ii); 1910.1200(b)(5)(i)
841123

ABSTRACT

OSHA intends to amend the EtO final rule to include an exception to the labeling requirements, as suggested in the proposed rule, for registered pesticide products regulated by EPA.

(NOTE: Since the 1984 interpretation letter, the labeling requirements outlined in 1910.1047(j)(1)(ii) and 1910.1047(j)(1)(iii) were put into effect in January 1986 and October 1985, respectively.)

INTERPRETATION

29 CFR 1910.1047(j)(1)(iii); 1910.1047(j)(1)(ii); 1910.1200(b)(5)(i)

NOV 23, 1984

This is in response to your letter of October 19, 1984, in which you expressed concern regarding the labeling provisions contained in the Occupational Safety and Health Administration (OSHA) final standard for ethylene oxide published June 22, 1984. We are in agreement with the contention, as expressed in your letter, that both legal and substantive conflicts presently exist between OSHA and Environmental Protection Agency (EPA) labeling provisions for ethylene oxide (EtO) that were not anticipated by OSHA. Specifically, OSHA agrees that failure to include an exception to the final EtO labeling requirements, as was included in the proposed rule, for registered pesticide products regulated by EPA has resulted in this conflict. It is our intent, therefore, to resolve this matter by amending the OSHA EtO final rule, as you have suggested, to include the following provision:

"The labeling requirements under this section do not apply where EtO is used as a pesticide, as such term is defined in the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 et seq), when it is labeled pursuant to that Act and regulations issued under that Act by the Environmental Protection Agency."

This exception was not adopted in the final EtO rule because OSHA had anticipated regulatory action by EPA that would have brought EPA's EtO labeling requirements into conformance with OSHA's, thus eliminating any foreseeable inconsistencies. Although EPA may in the future modify its requirements, OSHA agrees that it is necessary and appropriate at this time to administratively amend its EtO standard as discussed above. We intend to consult with EPA during development of this amendment.

SOURCE LETTER

OCT 19, 1984

I am writing to advise you of certain concerns which the Environmental Protection Agency has regarding one provision of the OSHA final standard concerning occupational exposure to ethylene oxide (EtO), 29 CFR 1910.1047, 49 FR 25796 et seq., June 22, 1984. The final standard for EtO includes a provision, 40 CFR 1910.1047(j)(1)(ii), which requires employers to "ensure that precautionary labels are affixed to all containers of EtO whose contents are capable of causing employee exposure at or above the action level." Although the proposed standard for EtO included an exception to this requirement for pesticide products registered and labeled pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), the final standard deleted this exception. Thus, the OSHA final standard requires that further labeling be added to registered pesticide products containing EtO which currently bear labeling approved by EPA under FIFRA. Such a requirement poses both legal and substantive concerns.

To the extent that 1910.1047(j)(1) contemplates that the employer will be responsible for affixing additional labeling not included in the approved FIFRA labeling to individual pesticide containers, EPA believes that this provision is inconsistent with an existing statutory provision. Section 12(a)(2)(A) of FIFRA, 7 U.S.C. 136(a)(2)(A), states, "It shall be unlawful for any person to detach, alter, deface, or destroy, in whole or in part, any labeling required under this Act." We believe that any employer or other

user who affixes additional labeling to the container of a registered pesticide product would be violating this provision. While EPA could as a matter of prosecutorial discretion decline to apply this provision to user labeling when it is required by other Federal agencies, it is our view that permitting any alteration or amendment by a user of approved labeling for a registered pesticide product could have pernicious consequences. Label language is the principal mechanism by which EPA requires users of pesticide products to conform to the terms and conditions of registration.

In addition to this basic legal problem, EPA has an additional substantive concern about the specific label language which the OSHA EtO standard requires. Section 1910.1047(j)(1)(ii) requires that precautionary labeling for each affected product must, among other things, include the word "CAUTION." EPA Regulations, 40 CFR 162.10(h), establish specific requirements concerning the warnings and precautionary statements which must appear on pesticide labeling. A particular "human hazard signal word" is assigned to each pesticide depending on how it is classified with respect to toxicity. Ethylene oxide products fall within Toxicity Category I, the most stringent category, and must therefore state on the front panel of the label the signal word "DANGER." In contrast, the signal word "CAUTION" is utilized for products which fall within Toxicity Categories III and IV. In our experience, the human hazard signal word is one of the elements of the label with which applicators and users are most familiar. Because the human hazard signal word describes the intrinsic toxicity of a pesticide and thereby gives general guidance concerning the measure of care required in handling and using that pesticide, it is critical to avoid using signal words in a confusing manner. Indeed, 40 CFR 162.10(h)(1)(i)(E) expressly states that, "In no case shall more than one human hazard signal word appear on the front panel of a label."

For the reasons stated above, I hope OSHA will consider amending its final standard for EtO to include the exception to label requirements for registered pesticide products which was previously included in its proposed standard. Meanwhile, EPA is prepared to consult and cooperate with OSHA in developing an efficient and complementary approach to regulation of EtO products and their use. To this end, we are currently reviewing the approved labeling for pesticide products containing EtO to determine what changes may be required to facilitate implementation and enforcement of the OSHA standard.

RECORD ID 2487

STANDARD NUMBER 1910.1047(d)(6); 1910.1047(Appendix B)(IV)(A)(2)
INFORMATION DATE 860731

ABSTRACT Eight hour TWA passive dosimeters, OSHA Charcoal Tube, and Qazi-Ketham charcoal tubes are the methods used by OSHA's Salt Lake City Analytical Laboratory for ethylene oxide sample collection. Section (d)(6) describes the accuracy the air monitoring devices must have to satisfy the standard.

INTERPRETATION 29 CFR 1910.1047(d)(6); 1910.1047(Appendix B)(IV)(A)(2)

JUL 31, 1986

As I mentioned in our telephone conversation regarding the metabolism and sampling method for ethylene oxide, Mr. T of the Directorate of Technical Support's Technical Data Center will forward a copy of the Occupational Safety and Health Administration's (OSHA) ethylene oxide standard, as well as information on the metabolism.

Following are three sampling methods that are used by OSHA's Salt Lake City Analytical Laboratory:

(1) Eight Hour TWA Passive Dosimeter.

This method is both convenient and accurate. Studies comparing this method to the OSHA procedure (#2) show good correlation between the two.

(2) OSHA Charcoal Tube

You mentioned that you are using a dual charcoal tube method. This has the following disadvantages: requires refrigeration for transport, as opposed to OSHA's method, and required several samples; migration from one tube to the next occurs.

(3) Qazi-Ketham Charcoal Tube.

This method utilized larger tubes that requires special holders and is more cumbersome than smaller tubes utilized in OSHA's procedure.

More information regarding sampling is included in OSHA's standard. If further detail (information on passive dosimeters) is required, I suggest you contact OSHA's Analytical Laboratory directly. Their address is:

SLC Analytical Laboratory
P.O. Box 15200
1781 South 300 West
Salt Lake City, Utah 84115

RECORD ID 3541

STANDARD NUMBER 1910.1047(b); 1910.1047(c)(2); 1910.1047(c)(1); 1910.1047(h)(2);
1910.120(e)(1)(i)
INFORMATION DATE 900426

ABSTRACT OSHA's Ethylene Oxide (EtO) standard, 1910.1047, requires that where there is the possibility of employee exposure to EtO due to an emergency, means shall be developed to alert potentially affected employees of such occurrences promptly. Affected employees shall be immediately evacuated from the area in the event that an emergency occurs. The EL is not interpreted as an emergency exposure limit but rather as a PEL; the excursion limit is an allowable time-weighted average exposure under the standard as collected over a 15 minute sampling period.

INTERPRETATION 29 CFR 1910.1047(b); 1910.1047(c)(2); 1910.1047(c)(1);
1910.1047(h)(2); 1910.120(e)(1)(i)

APR 26, 1990

SUBJECT: Clarification of 29 CFR 1910.1047(h)(2) Requirements for Emergency EtO Limit

This is in response to your memo of January 9, requesting an interpretation of 1910.1047 OSHA's Ethylene Oxide (EtO) standard, paragraph (h)(2). This paragraph requires:

(2) Alerting employees. Where there is the possibility of employee exposure to EtO due to an emergency, means shall be developed to alert potentially affected employees of such occurrences promptly. Affected employees shall be immediately evacuated from the area in the event that an emergency occurs.

In the situation described in the memos you sent us, a Notification (OSHA 2-H) was issued by the Area Office to the (Hospital) in (City, State) for a violation of 1910.1047(h)(2). The hospital utilized (Company A) and (Company B) portable gas monitors during ethylene oxide sterilization runs and set the alarm to be triggered at 50 ppm. The basis for your interpretation that this did not meet the intent of the standard is the standard's excursion limit (EL) for EtO, which, at 5 ppm, is the airborne concentration of EtO to which the employer is to ensure that no employee is exposed, as averaged over a sampling period of 15 minutes.

Based on discussions with the Directorate of Health Standards Programs, we regard the 50 ppm alarm limit utilized by the VA for their EtO monitors as an acceptable limit. There are several reasons for this. The EL is not interpreted as an emergency exposure limit, it is, instead, a PEL; the excursion limit is an allowable time-weighted average exposure under the standard as collected over a 15 minute sampling period. We assume that the 50 ppm alarm limit utilized by the VA represents an instantaneous reading and that the monitoring units you mentioned are direct reading portable gas analyzers and are capable of providing instantaneous analysis of ambient EtO levels.

It is possible that an employee's exposure could reach a peak of 50 ppm for a small amount of time and the employee's overall exposure would still be under the 8-hour PEL of 1 ppm. The intent behind the promulgation of the excursion limit was to reduce exposed employee's total EtO dose to levels below what is achievable without the EL (that is, if only the 8-hour TWA were enforced). The excursion limit is not a ceiling limit that may not be exceeded, it is a 15-minute time-weighted average exposure.

"Emergency" is defined in the EtO final standard as:

"an occurrence, such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that is likely to or does result in an unexpected significant release of EtO."

Utilizing a 50 ppm (instantaneous reading) alarm would be consistent with the intent of the provision at (h)(2) to alert employees of an "unexpected, significant release of EtO" that may result from an equipment failure, etc. High or peak EtO exposures can occur in regulated areas (regulated areas are defined as areas "where a reasonable expectation exists that the excursion limit would be exceeded if an employee

were to work at that location all day" (see FR Vol. 53, No. 66, April 6, 1988, pg. 11433)). Therefore, setting the alarm to sound at the EL may mean that the alarm could possibly be sounding continuously, since these instruments are located near the EtO sterilizer, certainly within the regulated area(s). Again, the EL is not an emergency limit and the intent of the alarm requirement at (h)(2) is to warn of emergency situations (equipment or control failure) resulting in unexpected, significant releases of EtO.

Further, the 1984 EtO final standard (FR Vol. 49, No. 122, June 22, 1984) contained this same requirement at (h)(2). The EL for EtO had not been promulgated at that time. This fact further speaks to the intent that the requirement for EtO "alarms" not be for levels above the EL, but, again, for emergency situations as discussed above.

This interpretation is not meant to definitively state that "50 ppm" is the level at which all EtO alarms required by (h)(2) should be set. The standard, the preamble, and information in the rulemaking record are all silent on the establishment of a specific level for this requirement. The requirement at (h)(2) is performance-oriented, as it requires that "means shall be developed..." and mentions no specific level, indeed, does not specifically require an "alarm." In this situation, as in all other performance-oriented compliance requirements, it is up to the employer to meet the intent of the standard by "means" that allow him to adapt the requirements of the rule to the needs of his workplace, means that meet the intent of the standard, rather than be required to follow a specific, rigid requirement. For all of these reasons, therefore, we believe that the EtO alarm level utilized by the VA meets the intent of the standard to provide a means of alerting employees of significant releases of ethylene oxide.

SOURCE LETTERS

FEB 12, 1990

The U.S. Army Corps of Engineers Division, Hazardous and Toxic Waste Design Center, is responsible for the design and oversight of government mandated hazardous waste site cleanup operations (military and Superfund) nationwide. Contractors have posed questions to us regarding the applicability, if any, of training requirements set forth in 29 CFR 1910.120(e) for employees performing duties in locations which appear to be "non-hazardous" at hazardous waste sites. We are seeking interpretation in this regard in order that we may provide proper contract specification and guidance, specifically, as to the degree of formal training required (i.e. 40 hours, 24 hours, or none) in these situation.

In general, are employees working exclusively in the Support Zone areas, as the uncontaminated areas where workers should not be exposed to hazardous conditions (Reference: Occupational Safety & Health Guidance Manual for Hazardous Waste Site Activities - NIOSH, OSHA, USCG, EPA - October 1985), required to have formal training under 120(e) and, if so, to what extent?

The following examples are provided to illustrate the point in question:

- a. There are situations in which an employee's work activity is strictly confined to the Support Zone, defined via prior characterization. Examples of such include: (1) a secretary working in a job-site administration trailer, located within the Support Zone, who is instructed never to enter the Exclusion Zone or Contamination Reduction Zone; (2) employees involved in the construction of a water treatment plant or other site facilities on documented uncontaminated areas of the site.
- b. There are instances in which the boundaries of the Exclusion (contaminated) Zone are changing during remediation, such as during the "capping" of a landfill. The area of contamination recedes as soil cover is being hauled in over clean fill and is dumped along the periphery of the Exclusion Zone. Truck drivers hauling the cover material remain technically within the non-contaminated zone and should, therefore, not be exposed to hazardous conditions. Likewise, once the initial cap cover has been installed (i.e. 6 inches to 2 feet of fill), employees installing geotextile membranes/ liners on top of the placed clean cover material are essentially working in non-contaminated areas although still within the boundaries of the "site".

We should point out that employees working on Corps projects receive site-specific emergency preparedness training regardless of work zone assignment. Their lack of exposure, in situations as described, would be documented through periodic air sampling and exposure monitoring at the interface between contaminated site areas (Exclusion Zone and Contamination Reduction Zone) and the uncontaminated Support Zone areas.

JAN 9, 1990

SUBJECT: Request for Interpretation/Clarification of 29 CFR 1910.1047(h) (2)

Attached is a request from our Area Office for an interpretation of 29 CFR 1910.1047(h)(2) with respect to what is considered to be an emergency limit for ethylene oxide. There is no concentration suggested either in the standard or in the preamble discussion.

The Hospital, (City, State), has chosen to set their emergency monitor at 50 ppm. What is the suggested concentration level for setting the emergency monitors in the hospital environment described?

DEC 21, 1989

SUBJECT: Standard Interpretation of 29 CFR 1910.1047(h)(2)

During a recent inspection at the Hospital, (City, State) the use of an Enmet Monitor set at 50 part per million for ethylene oxide was observed.

The ethylene oxide sterilizer uses a compressed gas supply cylinder of a 12:88 gas mixture (Eto:Freon). A negative pressure enclosure with local exhaust ventilation is also used in the sterilizer room. A redundant monitor is also located in the exhaust system. AMSCO portable monitors are used during sterilization and the alarm is set at 50 ppm.

The Area Office issued a Notification (OSHA-2H) for a violation of 29 CFR 1910.1047(h)(2). The basis of this decision is 29 CFR 1910.1047(c)(2) which states no employee shall be exposed to an airborne concentration of ethylene oxide in excess of 5 parts of ethylene oxide per million parts of air (5ppm) as averaged over a sampling period of 15 minutes.

The Hospital contends that the short term exposure limit is not an emergency limit. There is no level documented in the standard or in NIOSH documents to what constitutes an emergency. They believe having the monitors set at 50 ppm is proper.

As you can see, this same situation could occur with other hazardous chemicals at other locations. Therefore, an interpretation is needed as to the setting of a monitoring device to indicate emergency conditions versus the STEL or other exposure limits.

RECORD ID 1731

STANDARD NUMBER 1910.1047(h)(2); 1910.1047(h)(1)(ii); 1910.38; 1910.165
INFORMATION DATE 870108

ABSTRACT A written emergency plan is required to address EtO emergency situations in hospitals. OSHA gives the employer the flexibility to choose any effective method of alerting employees including communication systems, voice communication systems, bells, or other alarms.

(NOTE: 1910.1047 was last amended in 1989. 1910.165 has not been amended since 1980. 1910.38 has not been amended since 1980.)

INTERPRETATION 29 CFR 1910.1047(h)(2); 1910.1047(h)(1)(ii); 1910.38; 1910.165

JAN 8, 1987

This is in response to your letter of November 17, 1986 regarding an interpretation of the ethylene oxide standard, 29 CFR 1910.1047. Please accept my apology for the delay in responding to your request.

Your specific question related to a means of alerting employees during an EtO emergency situation in hospitals, 29 CFR 1910.1047(h)(2).

OSHA defines an EtO emergency situation as "an occurrence such as but not limited to equipment failure, rupture of containers, or failure of control equipment that may result in an unexpected significant release of EtO sufficiently to produce acute toxic effects in exposed employees constitute such an emergency."

29 CFR 1910.1047(h)(1) requires written plans for emergency situations to be developed for each workplace where there is a possibility of an emergency. These plans shall be written in accordance with 29 CFR 1910.38 (Employee Emergency Plans and Fire Prevention Plans.)

Section (h)(2) of the standard requires some method of alerting employees of an emergency promptly. OSHA gives the employer the flexibility to choose any effective method of alerting employees including communication systems, voice communication system, or a bell or other alarm. However, if the employer choose to install an emergency alarm system, the system must meet the requirements of 29 CFR 1910.165 (Employee Alarm System). It should be mentioned that 29 CFR 1910.165 (b)(5) states the following:

"For those employers with 10 or fewer employees in a particular workplace, direct voice communication is an acceptable procedure for sounding the alarm provided all employees can hear the alarm."

Therefore, such sophisticated alarm systems might be unnecessary for some facilities such as small hospitals with only one EtO sterilizer.

SOURCE LETTER

NOV 17, 1986

On November 14, 1986 I spoke with Mr. R regarding the "means of alerting employees to evacuate during an EtO emergency situation in hospitals." She was extremely helpful.

I would like to obtain a Standard Interpretation Directive on this issue for hospitals. My question is "Are hospitals required to install continuous monitoring systems with audible alarms for emergency situations?"

As a former Compliance Office, I believe such would not be beneficial for the healthcare employee. Mr. M and I discussed this issue when the standard was published and he agreed that it would not be necessary or practical for hospitals. I believe Ms. R also agreed.

In the hospital industry our present situation is one of manufacturers/suppliers attempting to take advantage of our general lack of knowledge about OSHA's requirements.

It is evident that many statements, implication, etc., being disseminated by salesmen are not in line with what is required regarding EtO management.

For example, one company is utilizing 1910.165 to intimidate hospitals into the purchase of such a system. (A similar system is being promoted by another company at a cost of \$25,000.) I have enclosed their brochure as an attachment.

As pointed out, the preamble states, "The performance language of the emergency situation paragraph of the final standard will give employees the flexibility to choose any effective method of alerting employees, including communication systems, voice communication, or a bell or other alarm."

In accordance with OSHA's definition for an EtO "Emergency" it means any occurrence such as, but not limited to, equipment failure, rupture of containers or failure of control equipment that is likely to or does result in an unexpected significant release EtO." In addition the preamble includes ". . . that might produce a release of EtO of sufficient size to product significant acute effects, including eye or respiratory irritation.

A hospital employee immediately knows if a cartridge ruptures during installation, or if there is a tankline rupture when changing an EtO cylinder or if the equipment is not functioning properly from review of the recording charts. Companies are "selling" the idea that "small" leaks may go unnoticed for some time. "Small" leaks would not produce "significantly acute effects" or even an 8-hour TWA exposure exceeding the action level in most cases.

Considering the small quantity used in healthcare settings and the relatively controlled environment it seems that the current push for continuous monitors/alarms has little or no benefit for the employee.

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DOE Interpretations Guide to OSH Standards

July 1,1992

OSHA Instruction STP 2-1.122

DEC 9 1985

Office of State Programs

SUBJECT: Occupational Exposure to Ethylene Oxide; Labeling Requirements, 29 CFR 1910.1047

- A. PURPOSE. This instruction describes a Federal Program change to the Regions and State designees.
- B. SCOPE. This instruction applies OSHA-wide.
- C. REFERENCE.
 - 1. OSHA Instruction STP 2-1.116, August 13, 1984.
 - 2. OSHA Instruction STP 2-1.119, May 29, 1985.
- D. FEDERAL PROGRAM CHANGE. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:
 - 1. Ensure that this instruction is forwarded to each State designee.
 - 2. Provide a copy of the Federal Register notice to the State designee upon request.
 - 3. Explain the technical content of the Federal Register notice at 50 FR 41491, October 11, 1985, 29 CFR 1910.1047, Occupational Exposure to Ethylene Oxide; Labeling Requirements, to the State designee upon request.
 - 4. Ensure that each State designee acknowledges receipt of this instruction in writing, within 30 days of notification, to the Regional Administrator. The acknowledgment should include (a) the State's plan to adopt and implement the standard change, (b) the State's plan to develop an alternative change, which is as effective, or (c) the reasons why no change is necessary to maintain a program which is as effective.
 - 5. Inform each State designee that the State must amend the State's standard to ensure that it remains at least as effective as the amended 29 CFR 1910.1047, and submit a plan supplement within 6 months of the date of Federal publication.
- E. BACKGROUND.
 - 1. Final Rule, Occupational Exposure to Ethylene Oxide; Labeling Requirements, was published at 50 FR 41491, October 11, 1985. This document amends OSHA's final ethylene oxide (EtO) standard (29 CFR 1910.1047) to provide an exception (new paragraph (i)(1)(iii)) from the labeling requirements of paragraph (j)(1)(ii) of that section, for EtO containers which have been labeled pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).
 - 2. This amendment is believed to be necessary to avoid legal and substantive conflict with FIFRA and regulations issued pursuant to FIFRA by the Environmental Protection Agency (EPA).
 - 3. In addition, this notice amends paragraph (i)(1)(i)(A) by modifying the signal word of OSHA's EtO label from "Caution" to "Danger" to conform both to that required for EtO signs by paragraph (j)(1)(i) of the OSHA standard and with the signal word on the FIFRA label, and by revising the hazard language on the label.

OSHA Instruction STP 2-1.122 (cont.)

4. New paragraphs (j)(1)(iii) and (m)(3) are effective October 11, 1985. Revised paragraph (j)(1)(i)(A) is effective January 9, 1986.
5. Under 29 CFR 1953.23(a) and (b), States are provided up to 6 months from publication in the Federal Register for adoption of parallel State standards and amendments.

OSHA Instruction STP 2-1.148

JUL 13, 1988
Office of State Programs

SUBJECT: Occupational Exposure to Ethylene Oxide (EtO), Final Rule

A. **PURPOSE.** This instruction describes a Federal Program change to the Regions and State designees.

B. **SCOPE.** This instruction applies OSHA-wide.

C. **REFERENCE.**

1. OSHA Instruction STP 2-1.116, August 13, 1984.
2. OSHA Instruction STP 2-1.119, May 29, 1985.
3. OSHA Instruction STP 2-1.122, December 9, 1985.
4. OSHA Instruction STP 2-1.129, September 2, 1986.

D. **FEDERAL PROGRAM CHANGE.** This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this instruction is forwarded to each State designee.
2. Provide a copy of the Federal Register notice to the State designee upon request.
3. Explain the technical content of the Federal Register notice at 53 FR 11414, April 6, 1988, Occupational Exposure to Ethylene Oxide (EtO), to the State designee upon request.
4. Ensure that each State designee acknowledges receipt of this instruction in writing, within 30 days of notification, to the Regional Administrator. The acknowledgment should include (a) the State's plan to adopt and implement the standard change, (b) the State's plan to develop an alternative change, which is as effective, or (c) the reasons why no change is necessary to maintain a program which is as effective.
5. Inform each State designee that the State must amend the State's standard to ensure that it remains at least as effective as the amended 29 CFR 1910.1047, and submit a plan supplement within 6 months of the date of Federal publication.
6. Inform the State designee that the State:
 - a. Must establish effective dates for its standards which are not more than 6 months from the date of publication of the Federal standards, and
 - b. May delay the effective date for those particular provisions of its standards for which the comparable Federal provisions delay effective dates; however, the delayed effective date of a State provision may be no later than the effective date of the comparable Federal provisions.

D. **INTERIM ENFORCEMENT.** Under 29 CFR 1953.23(a) and (b), State plan States are provided up to 6 months from publication of the Federal standard in the Federal Register to promulgate an identical or "at least as effective" as standard. If a State, for whatever reason, is unable to promulgate a standard in a timely manner (6 months for a permanent standard, 30 days for an emergency temporary standard) the State shall be expected to provide assurance that it will enforce the substantive provisions of the new or revised Federal standard through such means as use of its

general duty clause or equivalent, temporary adoption of an identical standard, or an alternative, specified enforcement mechanism.

- E. **DIFFERENT STATE STANDARDS.** Section 18(c) (2) of the OSH Act requires that State standards be "at least as effective" as the Federal and, when applicable to products used or distributed in interstate commerce, be required by compelling local conditions and not unduly burden interstate commerce. In addition to the "at least as effective" criterion, this "product clause test" will be applied to State standards with substantively different requirements from the comparable Federal standards, as discussed in OSHA Instruction STP 2-1.117.
- F. **NEW EXCURSION LIMIT AND EFFECTIVE DATES.** The Excursion limit for ethylene oxide (EtO) is set at five parts EtO per million parts of air (5 ppm) averaged over a sampling period of 15 minutes. It is to be phased in over the next eight months with the final amendments to the EtO standard to be effective June 6, 1988; compliance with the excursion limit to be required by September 6, 1988, and engineering controls to be implemented by December 6, 1988.
- G. **EXPLANATION.**
 - 1. On April 6, 1988, OSHA issued a final rule on its standard for Occupational Exposure to Ethylene Oxide (EtO) (53 FR 11414). That action amended its existing standard that regulates Occupational exposure to ethylene oxide (29 CFR 1910.1047) by adopting an excursion limit for EtO of 5 parts of EtO per million parts of air (5 ppm) averaged over a sampling period of 15 minutes.
 - 2. Where the excursion limit is exceeded, employers are obligated to reduce exposure through implementation of feasible engineering controls and work practices, supplemented by the use of respirators where necessary. In addition, employers are required to establish and implement a written compliance program to achieve the excursion limit, establish exposure monitoring and training programs for employees subjected to EtO exposure above the excursion limit, identify as regulated areas any locations where airborne concentrations of EtO normally exceed the excursion limit, and affix warning labels on products capable of releasing EtO to the extent that an employee's exposure would foreseeably exceed the excursion limit
 - 3. Under 29 CFR 1953.23(a) and (b), States are provided up to 6 months from publication in the Federal Register for adoption of parallel State standards and amendments.

OSHA Instruction CPL 2-2.52

NOV 20, 1990

Subject: Enforcement Procedures for Occupational Exposure to Formaldehyde.

A. Purpose. This instruction provides uniform inspection procedures and guidelines to be followed when conducting inspections and issuing citations for workers potentially exposed to formaldehyde.

B. Scope. This instruction applies OSHA-wide.

C. References.

1. OSHA Instruction STP 2.22A, May 14, 1986, the State Plan Policies and Procedures Manual.
2. OSHA Instruction CPL 2.45B, June 15, 1989, the Revised Field Operations Manual (FOM).
3. OSHA Instruction CPL 2-2.20B, February 5, 1990, the OSHA Technical Manual (OTM).
4. OSHA Instruction ADM 1-1.12B, December 29, 1989, the Integrated Management Information System (IMIS) Forms Manual.
5. OSHA Instruction CPL 2-2.30, November 14, 1980, 29CFR 1913.10(b)(6), Authorization of Review of Medical Opinions.
6. OSHA Instruction CPL 2-2.33, February 8, 1982, 29 CFR 1913.10, Rules of Agency Practice and Procedure Concerning OSHA Access to Employee Medical Records--Procedures Governing Enforcement Activities.

D. Action. Regional Administrators and Area Directors shall ensure that the policies and procedures explained in this instruction are implemented.

E. Federal Program Change. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:

1. Ensure that a copy of this change is promptly forwarded to each State designee, using a format consistent with the Plan Change Two-way Memorandum in Appendix P, OSHA Instruction STP 2.22A, CH-2.
2. Explain the technical content of this change to the State designee as requested.
3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing to the Regional Administrator as soon as the State's intention is known, but not later than 70 calendar days after the date of issuance (10 days for mailing and 60 days for response). This acknowledgment must include the State's intention to follow OSHA's policies and procedures described in this instruction, or a description of the State's alternative policy and/or procedure which is "at least as effective" as the Federal policy, or of the reasons why the change should not apply to that State.
4. Ensure that the State designees submit a plan supplement, in accordance with OSHA Instruction STP 2.22A, Ch-3, as appropriate, following the established schedule that is agreed upon by the State and Regional Administrator to submit non FOM/OTM Federal program changes.
 - a. If a State intends to follow OSHA's policy described in this instruction, the State must submit either a revised version of this instruction, adapted as appropriate to reference State law, regulations and administrative structure, or a cover sheet describing how references in this instruction correspond to the State's structure. The State's acknowledgment of the Plan Change Two-way Memorandum may fulfill the plan supplement requirement if the appropriate documentation is provided.

- b. If the State adopts an alternative to Federal guidelines, the State's submission must identify and provide a rationale for all substantial differences from Federal guidelines in order for OSHA to judge whether a different State procedure is as effective as comparable Federal guidelines.
5. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel.

F. Background. On December 4, 1987, OSHA revised its standard for formaldehyde (29 CFR 1910.1048). This reduced the 8-hour time weighted average (TWA) exposure limit for formaldehyde from 3 parts per million (ppm) to 1 ppm. The peak allowable exposure of 10 ppm was revoked and the 5 ppm ceiling was reduced to 2 ppm TWA measured over a 15 minute period (short-term exposure limit) (STEL). Employers must also conduct exposure monitoring, offer medical surveillance to exposed employees, and supply protective equipment and clothing as needed. The employer may need to establish emergency procedures, provide for clean-up of spills, and install emergency showers and eyewash facilities. Employee training on the hazards of formaldehyde and on the formaldehyde standard must be conducted. Training is reinforced by labels and material safety data sheets (MSDS) required by the Hazard Communication Standard (HCS)(29 CFR 1910.1200).

1. On March 2, 1988, OSHA announced in the Federal Register the partial approval by the Office of Management and Budget of information collection requirements under the formaldehyde standard. All parts of the standard were approved except for paragraphs (m)(1)(i) through (m)(4)(ii), concerning hazard communication. In addition, a start-up date for updating the written materials in the training program was added to paragraph (p).
2. On November 8, 1988, OSHA announced in the Federal Register approval of information collection requirements for paragraphs (m)(1)(i) through (m)(4)(ii). A delayed start-up date was specified for these provisions along with a clarification of the labeling provisions. In the interim, OSHA sought comments on a petition for administrative stay of the warning label requirements.
3. On November 22, 1988, OSHA announced in the Federal Register a further extension of the start-up date for compliance with the newly approved hazard communication provisions.
4. On December 13, 1988, OSHA announced in the Federal Register an administrative stay of paragraphs (m)(1)(i) through (m)(4)(ii) for a period of 9 months. This stay has been extended to December 11, 1990. The effect of the administrative stay will be the continued enforcement of the Hazard Communication Standard with respect to formaldehyde.
5. On July 13, 1989, OSHA published in the Federal Register a corrections and technical amendments notice. Table 1 of paragraph (g), Respiratory Protection, was modified so that the entry for Type C respirators specifies pressure demand or continuous flow type, with full facepiece, hood, or helmet. The notice also clarifies paragraph (g)(2)(ii) by substituting a performance standard, adequate to protect against formaldehyde exposure "based on protection factors", for an erroneous reference to Table 1. Also, chin style gas masks, approved by NIOSH for formaldehyde exposure, were incorporated into Table 1. Paragraph (o), Recordkeeping, was amended to incorporate a reference to 29 CFR 1910.20, the access to medical records standard.
6. On June 9, 1989, the U.S. Court of Appeals (District of Columbia circuit) handed down its decision regarding the challenge by the United Auto Workers (UAW) and Amalgamated Clothing and Textile Workers Union (ACTWU) to the formaldehyde standard. OSHA was directed to reconsider its finding of insignificant risk at 1 ppm and its failure to include a requirement for medical removal protection (MRP). OSHA petitioned the court to review its decision regarding MRP; this petition was denied on September 22, 1989.

G. Occupational Exposure to Formaldehyde.

1. Formaldehyde Uses. Formaldehyde is a reactive chemical with many uses.

- a. The major consumers of formaldehyde are the manufacturers of compressed wood products. Formaldehyde is consumed in resins that are used as glues in the production of particle board, plywood, and fiberboard. These wood products in turn are used in the construction, furniture, and mobile home manufacturing industries.
- b. The plastics industry is the second largest use of formaldehyde-based resins. Molding compounds containing melamine, phenolic, or acetyl resins are capable of releasing formaldehyde when subjected to heat and/or pressure in the molding process. The final product, however, contains little free formaldehyde and has little potential for depolymerization, so that potential exposure to formaldehyde from use of the plastic product is minimal. Typical of plastics made from formaldehyde-based resins are lawn and garden equipment, plumbing fixtures, melamine tableware, and electrical insulation parts.
- c. Formaldehyde-releasing resins are used to add wrinkle-free and durable press characteristics to synthetic and natural-fiber textiles. These resins leave residual formaldehyde in the product which can result in exposure to formaldehyde in the apparel industry. A dimethyloldihydroxyethyleneurea (DMDHEU)-based resin system is most commonly used.
- d. Formaldehyde-bearing resins are used in the coating industry primarily as modifiers in alkyd and acrylic coating systems. Urea formaldehyde resins are used in clear coating for wood furniture, primer coats for automobiles, baked enamels for appliances, and can coatings. Melamine-formaldehyde resins are generally used where outdoor exposure or contact with detergents require improved chemical resistance. Melamine-formaldehyde resins also have some application where corrosion resistance is important.
- e. Paper products may be treated with formaldehyde derivatives (e.g., melamine- or urea-formaldehyde) to add a desired finish or wet-strength quality. Melamine resins can be inactivated by a high sulfate concentration, and this problem is overcome by addition of excess formaldehyde.
- f. Formaldehyde is an important constituent of embalming and preserving fluids because it performs two essential functions--disinfection and preservation. In mortuaries, embalming fluids may be injected in concentrated form to preserve the organs in the visceral and thoracic cavities. Arterial fluids are prepared by diluting the concentrate and are injected into the arterial system through a hose. Formaldehyde's properties as a tissue preservative also account for its use in anatomy, histology, and pathology laboratories.
- g. Formaldehyde-based chemicals are used in textile waterproofing, as accelerators in the production of rubber products, and in photographic developing. Foundries use formaldehyde-based resins in molds in the production of ferrous and non-ferrous goods.
- h. Formaldehyde is used in the production of industrial chemicals including pentaerythritol 1,4-butenediol, and trimethyl-o-propane.
- i. Some detergents, fertilizers, explosives and abrasive products are also manufactured with formaldehyde. Because formaldehyde is an effective bactericide, it is contained in cosmetic products, shampoos, and hair sprays. It is used in the manufacture of some pharmaceutical products and germicides, and it is used to clean dialysis equipment.

2. Formaldehyde Exposure.

- a. Formaldehyde exposure can occur in three ways:

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- (1) Exposure to liquid or solid formaldehyde (paraformaldehyde) and the accompanying vapors;
 - (2) Exposure to formaldehyde during primary processing of formaldehyde resins and other chemicals manufactured from formaldehyde; and
 - (3) Exposure to formaldehyde released from products that contain formaldehyde-based resins.
- b. Occupational exposures to formaldehyde occur during heat and/or pressure processing of products made from or including formaldehyde bearing resins. Examples of such exposures include the pressing of wood products, extrusion or injection molding of plastics, heat-setting of pleats on apparel, and casting of molds in foundry processes.
 - c. Occupational exposures to formaldehyde occur when a finished product contains residual formaldehyde or when hydrolysis--that is, the chemical break-down of formaldehyde-containing materials to produce formaldehyde gas prompted by warm and humid work environments--occurs. The EPA has described this phenomenon as "pseudo-consumptive use" of formaldehyde; i.e., chemical identity is changed but not irreversibly. Examples of "Pseudo-consumptive" uses are: (1) ureaformaldehyde resins in fiberboard, particleboard, plywood, laminates, ureaformaldehyde foams and insulation products, molding compounds, and protective coatings; (2) ureaformaldehyde concentrates used to produce time-release fertilizers; and (3) hexamethylenetetramine.
3. Operations. Specific operations that cause employee exposure to formaldehyde include:
- a. Formaldehyde transfer operations,
 - b. Reactor or vessel cleaning,
 - c. Fugitive emissions in chemical plants,
 - d. Exposure to articles that have been treated with formaldehyde based resins before curing,
 - e. Exposure to articles containing cured resins during transit from curing operations to storage or further processing,
 - f. Exposure to stored articles containing cured resins, and
 - g. The application of formaldehyde-based resins.

NOTE: Short-term exposures occur during batch operations such as mixing and during periodic cleaning and maintenance activities. Concentrated formaldehyde solutions (37% or greater) are often diluted for sale or use by chemical distributors or end-users, such as hospitals. In addition, short-term exposures occur in mortuaries and laboratories (anatomy, histology, pathology, environmental testing, and school biology).

H. Health Effects. Based on the best available evidence in the agency's record on formaldehyde, OSHA determined that formaldehyde is genotoxic, showing properties of both a cancer initiator and promoter. When inhaled, formaldehyde is a carcinogen in rats. In humans, formaldehyde exposure has been associated with cancers of the lung, nasopharynx and oropharynx, and nasal passages.

1. Formaldehyde is highly irritating to the upper respiratory tract and eyes. Concentrations as low as 0.1 to 2 ppm may irritate the eyes, nose, and throat of some individuals. Concentrations of 3 to 5 ppm cause tearing of the eyes, and the severity of the effects becomes intolerable to some persons. Concentrations of 10 to 20 ppm cause difficulty in breathing, burning of the nose and throat, coughing, and heavy tearing of the eyes. Concentrations over 25 ppm can cause severe respiratory tract injury that can lead to pulmonary edema and pneumonitis. A concentration of 100 ppm is regarded as immediately dangerous to life or health (IDLH) for formaldehyde.

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2. Some persons have developed asthma or bronchitis following exposure to formaldehyde; usually a single exposure to high concentrations of formaldehyde as the result of an accidental spill appeared responsible for the onset of symptoms.
3. Formalin (37% formaldehyde) is a skin irritant and sensitizer. Formalin solutions splashed in the eye have resulted in blindness. Less concentrated solutions can also injure the eyes and skin. The severity of the effect depends on the concentration of formaldehyde in solution and whether the affected tissue is flushed with water immediately after the accidental splash. Contact with formalin causes a white discoloration, pain, drying, cracking, and scaling of the skin. Prolonged and repeated contact can cause numbness and a hardening or "tanning" of the skin.
4. Previously exposed persons may react to exposure with an allergic eczematous dermatitis or hives. Employees in industries where there is direct skin contact with formaldehyde-releasing resins (e.g., textiles) tend to have a higher than normal incidence of dermatitis. When patch tested, these persons sometimes show sensitization to formaldehyde.

I. Clarifications of the Formaldehyde Standard (29 CFR 1910.1048).

1. Paragraph (a) Scope and Application.
 - a. Formaldehyde refers solely to the chemical defined by Chemical Abstracts Services Registry Number 50-00-0. This chemical is formaldehyde gas which, per se, is not available commercially. Most exposures are to formaldehyde gas which is emitted at various concentrations from numerous products made from formaldehyde-bearing resins. Various mixtures of formaldehyde, water, and alcohol (sometimes referred to as "formalin") are also included in CAS #50-00-0. Paraformaldehyde, a solid polymeric form of formaldehyde, also serves as a source of formaldehyde gas.
 - b. The formaldehyde standard applies to all occupational exposures to formaldehyde. This includes general industry, and by cross-reference, maritime and construction. The only exceptions to this coverage occur where the Occupational Safety and Health Act does not give OSHA jurisdiction over employees. Examples include pesticide applicators who are covered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), public employees in States without OSHA-approved occupational safety and health State plans, and unincorporated businesses with no employees. The scope of the formaldehyde standard is not affected in most cases by the laboratory standard. The laboratory standard, 29 CFR 1910.1450, specifically does not apply to formaldehyde use in histology, pathology, and human or animal anatomy laboratories; however, if formaldehyde is used in other types of laboratories which are covered by the laboratory standard the employer needs to comply with 29 CFR 1910.1450
2. Paragraph (c) Permissible Exposure Limit. Where there are measurable concentrations of other regulated contaminants which affect the same body systems as formaldehyde, citations should be issued per the FOM, Chapter IV, C.6.c. This manual cites paragraph 29 CFR 1910.1000(d)(2) of the Air Contaminants standard for use in cases where there are potential additive and synergistic effects. The Air Contaminants standard, 29 CFR 1910.1000(d)(2)(i), contains a formula which has the effect of proportionally reducing the PEL of each regulated toxic element of the multiple exposure. As an example, if a woodshop worker has an exposure to wood dust measured at 2.5 mg/m³ TWA, which represents 50% of the PEL of 5 mg/m³, then the PEL for formaldehyde (1 ppm TWA) would be reduced by 50%, resulting in a PEL for a concurrent formaldehyde exposure of 0.5 ppm. Paragraph (d) (2)(i) requires employers to meet these adjusted PEL's where there is an exposure to a mixture of air contaminants regulated by Subpart Z. The body system primarily affected by formaldehyde is the respiratory system (upper and lower). The immune system may also be affected. (Formaldehyde is a sensitizer which provokes an IgE (immunoglobulin) mediated response.) Appendix F contains guidance for calculating the adjusted PEL's and SAEs (sampling and analytical errors). The adjusted PEL should apply only to enforcement of paragraphs (c), Permissible Exposure Limit and (f), Methods of compliance. The STEL and AL should not be adjusted for mixtures for compliance evaluations.

3. **Paragraph (d), Exposure Monitoring.** Paragraph (d) of the formaldehyde standard requires employers to determine their employees' exposure to formaldehyde if any mixture or solution present in the workplace contains 0.1 percent or more of formaldehyde, or if materials capable of releasing formaldehyde into the workplace air result in employees being exposed to formaldehyde at concentrations reaching or exceeding 0.1 ppm. The CSHO should verify the employee exposure via bulk or air samples.
 - a. **Objective Data.** The exposure determination must consist of actual measurements unless the employer can produce objective data to document that no employee will be exposed to formaldehyde at concentrations exceeding the 0.5 ppm (TWA) action level (AL), or the 2 ppm STEL under foreseeable conditions of use. Industry-wide studies or generic exposure estimates may be a source of objective data; however, the use of such data must accurately characterize actual employee exposures. For exposures less than the AL or STEL, area samples may also be used as the basis for exposure determinations, if they represent those exposures.
 - b. **Medical Complaints.** Regardless of employee exposure level, if there are employee health complaints, the employer is required to take action to determine employee exposure.
 - c. **Exception.** If mixtures or solutions composed of 0.1 percent or less of formaldehyde are used, employee exposure is below 0.1 ppm, and there are no employee health complaints then an employer should not be cited for not monitoring. (See 29 CFR 1910.1048(d)(1)(ii) (A).)
 - d. **Repeat Monitoring.** If there is a change in production, equipment, process, personnel, or control measures, which may result in a new or additional exposure to formaldehyde, the initial monitoring shall be repeated. For example, apparel manufacturers and other producers/users of formaldehyde resin finished fabrics may need to repeat initial determinations with different fabric lots.
 - e. **Sampling Methods.** As long as the method selected for sampling and analysis meets the criteria for precision and accuracy set out in the formaldehyde standard, the employer is free to choose from many methods available for monitoring exposure to formaldehyde.
 - (1) Among the methods available are the chromotropic acid method which relies on use of a midget impinger, gas chromatographic methods which collect formaldehyde in a specially prepared tube, passive diffusion badges, and hand held monitors.
 - (2) Appendix A to this instruction summarizes information submitted to the formaldehyde docket on passive and direct reading devices for the measurement of formaldehyde. Limitations, where known, are also given.
4. **Paragraph (h), Protective Equipment and Clothing.** This section addresses the selection and maintenance of protective equipment and clothing, including aprons, goggles, face shields, and suits. The CSHO should evaluate potential formaldehyde hazards and use professional judgment in enforcing the general requirements of 29 CFR 1910.132 and 29 CFR 1910.133, which are incorporated into the formaldehyde standard by reference. Violations of these general requirements should be cited under 29 CFR 1910.1048(h). Some PPE requirements are specified by the formaldehyde standard, and violations of these requirements should be cited under 29 CFR 1910.1048(h)(1).
 - a. Solutions containing greater than 1-percent formaldehyde are damaging to the skin and severely damaging to the eyes. Consequently, protective equipment adequate to prevent contact with such solutions must be provided to employees, and the equipment must be kept in good repair and free of formaldehyde contamination.

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- b. Some solids that release formaldehyde and solutions that contain less than 1-percent formaldehyde can also pose a hazard to employees. Paragraph (h)(1)(iii) requires the employer to provide protective clothing or equipment, as needed, in accordance with the general standards for protective equipment and clothing (29 CFR 1910.132 and 29 CFR 1910.133) to prevent contact with irritating or sensitizing materials.**
 - c. Formaldehyde gas poses little hazard from dermal contact, although there are a few reports in the literature that indicate sensitization from high airborne concentrations. At the IDLH concentration, the standard requires whole body protection, essentially equivalent to Level A protection, to prevent potential sensitization.**
 - d. Butyl and nitrile glove materials provide the greatest permeation protection. Greater thicknesses of other materials (natural rubber, PVC, polyethylene) may be suitable for shorter immersion periods, but gloves may have to be changed more frequently due to degradation. All these materials are generally suitable for splash protection. Appendix B to this instruction summarizes the permeation data available for formaldehyde. Barrier creams are not regarded as effective protection for formaldehyde, since there is no data demonstrating their efficacy.**
- 5. Paragraph (l), Hygiene Protection.**
 - a. Emergency Showers. Because of the severe dermal effects that can occur when employees have skin contact with concentrated solutions of formaldehyde and because of the relative irreversibility of dermal sensitization to formaldehyde, the employer is required to provide conveniently located quick drench showers for employees who become splashed with solutions of 1 percent or greater formaldehyde as the result of equipment failure, improper work practices, or other emergencies. Whether or not the employee is wearing protective clothing does not affect the need for quick drench showers since the employee must be able to remove PPE splashed with formaldehyde in a safe manner. The availability of emergency showers should also help to lower any potentially serious inhalation hazard when an employee has been splashed with a formaldehyde solution.**
 - b. Eye Wash Facilities. Liquid formaldehyde can also cause severe damage to the eyes. Thus, the standard requires employers to provide appropriate eye wash facilities within the immediate work area for emergency use by any employee whose eyes are splashed with solutions containing 0.1 percent or more of formaldehyde.**
 - c. The degree of sophistication of the emergency shower and/or eyewash station varies with the size of the potential splash. The use of portable units or hand-held fixtures should be carefully evaluated. Such use should be limited to small spills (generally less than 8 oz.), provided that all possible affected body parts can be flushed continuously for 15 minutes. (For this reason, bottle-type eyewashes are not acceptable.) Appendix C of this instruction contains specific (non-mandatory) evaluation criteria for emergency showers and eyewashes.**
- 6. Paragraph (k), Emergencies. Paragraph (k) ensures that the employer will prepare for any situation where equipment failure, spill or rupture of containers, or failure of control equipment would result in an uncontrolled release of formaldehyde that could result in injury or loss of life. If such circumstances could occur in an accident, the employer must establish procedures for evacuation and access to emergency medical care, obtain needed equipment for evacuation and reentry into the area, and establish procedures for equipment repair, spill cleanup, decontamination, and waste disposal. Paragraph (k) violations should be grouped with any applicable violations under 29 CFR 1910.120. The threshold quantity for formaldehyde for evaluation of catastrophic potential is 500 lbs. (See OSHA Instruction CPL 2-2.45.)**
 - a. There is not a specific exposure level that triggers the emergency provisions. When determining if there is a need to provide for emergencies, the employer should consider whether employees' lives or health could be jeopardized in the worst reasonably predictable accident (i.e., the worst outcome of any possible scenario) unless employees are promptly evacuated from the area.**

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OSHA Instruction CPL 2-2.52 (cont.)

- (3) Retraining and initial training for employees not previously covered by 29 CFR 1910.1200 must be provided as soon as possible once the employer has identified that they are exposed to formaldehyde. A reasonable amount of time should be given the employer to permit identification of affected employees and to obtain training materials. In no case should more than 3 months after completion of monitoring be permitted. (Note that the start-up date for initial monitoring was by August 2, 1988.)
 - (4) The training provisions of paragraph (n) are to be cited rather than the HCS information and training requirements if the employee is covered by (n).
 - d. Appendix A to the formaldehyde standard provides general information which is appropriate for a training program. This outline would need to be supplemented by plant specific information. In addition, the OSHA hazard recognition training program on formaldehyde may be of assistance to employers who need to train employees. The program includes information on the new standard but it is being revised to more fully reflect the changes. (See OSHA Fact Sheet 89-27.)
10. Paragraph (p), Dates. Since all dates in this section have passed, all paragraphs are in effect for all industries. Appendix D to this instruction gives specific effective dates by paragraph.
 11. Supplemental Information. Appendix E to this instruction summarizes the formaldehyde standard rigging events.

J. Hazard Communication Standard (29 CFR 1910.1200)

(Reserved)

K. Inspection Procedures. The following procedures shall be followed in addition to the guidance in the FOMH, OTM, and IMIS Forms Manual.

1. Authorization to Review Limited Medical Information. Appropriately qualified compliance personnel are authorized to review medical disease questionnaires and medical opinions mandated by the formaldehyde standard when the limitations and procedures in OSHA Instructions CPL 2-2.30 and CPL 2-2.33 are followed.
 - a. Qualified compliance personnel are industrial hygienists or professionals with training in medical disciplines.
 - b. This authorization is pursuant to 29 CFR 1913.10(b)(6).
2. Recording in the IMIS. In addition to current instructions for completing the OSHA-1, as found in the IMIS Manual, the following shall be recorded in Item 42 for all inspections where employee exposure to formaldehyde is investigated for compliance with 29 CFR 1910.1048 and/or 29 CFR 1910.1200.
3. Contested Cases. For contested cases of 29 CFR 1910.1200 involving formaldehyde which the Regional Administrator supports as strong cases, the Regional Administrator shall expeditiously send a brief memorandum summarizing the facts to the Director, Directorate of Compliance Programs. After the information is reviewed at the National Office, the Regional Administrator will be notified if the National Office needs applicable portions of the case file before a recommendation on the case can be rendered.

Appendix A

Passive and Direct Reading Devices (1)

COMPANY: Air Quality Research (415-644-2097).
PRODUCT NAME: Passive Formaldehyde Kit (PF-20).
METHOD OF COLLECTION: Bisulfite coated glass fiber filter.
DETECTION: Chromotropic acid.
SENSITIVITY: 0.1 ppm for 8 hours; 5 ppm for 15 minutes
INTERFERENCES: Low humidity may cause adverse effects.
COMMENTS: Manufacturer claims the PF-20 monitor will operate in a humidity range of 20 to 90% RH. Face velocities must be greater than 25 cm/s during sampling.

COMPANY: Assay Technology (415-424-9947).
PRODUCT NAME: Chem Chip (TM).
DETECTION: Colorimetric (Furpald procedure).
SENSITIVITY: 0.1 ppm for 8 hours; 0.3 ppm for 15 minutes.
INTERFERENCES: Other aldehydes but less interference with higher molecular weights.
COMMENTS: Good for the STEL according to manufacturer's literature. Interferences of other aldehydes would cause a problem in certain industries such as embalming where glutaraldehyde may also be present.

COMPANY: Crystal Diagnostic (617-933-4114).
PRODUCT NAME: AirScan (TM).
METHOD OF COLLECTION: Chemical reaction.
DETECTION: Visible.
SENSITIVITY: 0.1 ppm 8 Hr.; STEL (see comments).
INTERFERENCES: Possibly humidity but not definite.
COMMENTS: The company states their monitors are sensitive enough for the STEL if the badge is allowed to develop for several hours. The results on the humidity interference were inconclusive.

(1) This is a summary of information from the formaldehyde docket on passive and direct reading devices. It is not a comprehensive list of all available devices. For further information contact the OSHA Salt Lake City Laboratory (FTS 588-4270).

COMPANY: CEA Instrument, Inc. (201-664-2300).
PRODUCT NAME: Model 555.
METHOD OF COLLECTION: Direct Reading Instrument.
DETECTION: Colorimetric (pararosaniline).
SENSITIVITY: 0.01 ppm continuous reading.
INTERFERENCES: Temperature can cause a problem; other aldehydes.
COMMENTS: A review article states that there is a long equilibration time and calibration must be done often. Interferences of other aldehydes would cause a problem in certain industries such as embalming where glutaraldehyde may also be present.

COMPANY: CEA Instruments, Inc. (201-664-2300).
PRODUCT NAME: TGM 555.
METHOD OF COLLECTION: Direct Reading Instrument.
DETECTION: Colorimetric (pararosaniline).
SENSITIVITY: 0.003 ppm continuous reading.
INTERFERENCES: Temperature can cause a problem; other aldehydes. COMMENTS: Modification of Model 555. Need to average the continuous readout for STEL. Interferences of other aldehydes would cause a problem in certain industries such as embalming where glutaraldehyde may also be present.

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COMPANY: Dosimeter Corporation (513-489-8100).
PRODUCT NAME: Model F-3.
METHOD OF COLLECTION: Cellulose sponge containing a sorbent
DETECTION: Visual with a comparator badge.
SENSITIVITY: 0.03 ppm for 4 hours.
INTERFERENCES: None listed
COMMENTS: Manufacturer's stated sensitivity would make it adequate for STEL.

COMPANY: DuPont.
PRODUCT NAME: Pro-Tek C-60 (TM).
METHOD OF COLLECTION: Modified 1% bisulfite.
DETECTION: Colorimetric (Chromotropic acid).
SENSITIVITY: 0.12 ppm for 8 hours; 1 ppm for 15 minutes.
INTERFERENCES: Phenol, ethanol and other alcohols but in concentrations 8 times and 15 times, respectively.
COMMENTS: Not good for STEL. The interferences of phenol and ethanol may cause problems in certain industries such as plywood manufacturing.

COMPANY: Envirotech Services, Inc. (608-643-4755).
PRODUCT NAME: ETS Dosimeter (TM).
METHOD OF COLLECTION: Organic acid on polycarbonate sponge.
DETECTION: Colorimetric (Purpald procedure).
SENSITIVITY: 0.1 ppm for 8 hours.
INTERFERENCES: Other aldehydes.
COMMENTS: Not good for the STEL. Interferences are other aldehydes which would cause a problem in certain industries such as embalming where glutaraldehyde may also be present.

COMPANY: Foxboro Analytical (203-853-1616)
PRODUCT NAME: Miran-1A.
METHOD OF COLLECTION: Direct Reading Instrument.
DETECTION: Infrared Spectrophotometer.
SENSITIVITY: 1 ppm continuous reading.
INTERFERENCES: Any compound which has an absorbance at 3.58 micrometers (C-Ia stretch). Possibly any aliphatic hydrocarbon may interfere.
COMMENTS: Need to average the continuous readout for STEL or TWA.

COMPANY: MDA Scientific, Inc.
PRODUCT NAME: Lion Formaldemeter.
METHOD OF COLLECTION: Direct Reading Instrument.
DETECTION: Electrochemical.
SENSITIVITY: 0.3 ppm.
INTERFERENCES: Compounds that are easily oxidized such as methanol, phenol, ethanol and formic acid.
COMMENTS: Not useable for STEL due to the short sampling time (approx. 20 seconds) and the time delay for the electrochemical cell to return to zero would prevent rapid sequential measurements.

COMPANY: Sensidyne (813-530-3602).
PRODUCT NAME: 91L.
METHOD OF COLLECTION: Detector tube.
DETECTION: Visible color indication.
SENSITIVITY: 0.2-5 ppm.
INTERFERENCES: Aldehydes, acid gases and ketones.
COMMENTS: The tube has the sensitivity for the STEL but taking a continuous 15-minute sample would be difficult. The number of interferences may lead to a problem.

OSHA Instruction CPL 2-2.52 (cont.)

COMPANY: 3M (612-733-8029).

PRODUCT NAME: 3721 (TM).

METHOD OF COLLECTION: Bisulfite impregnated pad.

DETECTION: Colorimetric (Chromotropic acid).

SENSITIVITY: 0.1 ppm for 8 hours.

INTERFERENCES: Manufacturer claims phenol is not an interference since the monitor has a low collection efficiency for phenol.

COMMENTS: Not good for the STEL. Sampling for longer than 16 hours in low humidity may make it unusable.

COMPANY: Kern Medical (800-553-0330)

PRODUCT NAME: 8510 Vapor-Trak.

METHOD OF COLLECTION: Moistened chemical pad.

DETECTION: Colorimetric (Chromotropic acid).

SENSITIVITY: 0.02 ppm (8 hours); 0.64 ppm (15 min).

INTERFERENCES: None listed but colorimetric methods usually have some interferences.

COMMENTS: Manufacturer's material states that humidity should not be a problem but if it does cause a problem then the exposure would be underestimated. They do state that 20% RH did not cause a problem. That RH is probably at room temperature.

COMPANY: Air Technology Labs, Inc. (209-435-3545).

PRODUCT NAME: Passive Bubbler.

METHOD OF COLLECTION: 3-methyl-2-benzothiazolinone hydrazone hydrochloride (MBTH) solution.

DETECTION: Colorimetric.

SENSITIVITY: 0.2 ppm for 8 hours. 0.8 ppm for 15 minutes.

INTERFERENCES: Other aliphatic aldehydes.

COMMENTS: Device is a passive liquid sampler that is independent of humidity.

Appendix B

Summary of Published Permeation Data

THICK (mm)	GENERIC MATERIAL	BREAKTHROUGH RATE (minutes)	STEADY STATE	COMMENTS
.28-.60	Nitrile	gt 360 to gt 1260		
.23	Viton	gt 960		
	Chemrel	gt 480		Suit Material
.08	Silver Shield	gt 360		Glove only
.43	Butyl	gt 240 to gt 960		gt 240=mixture
	PE/Tyvek	gt 360 to gt 480		
.07	PE/EVOH/PE	gt 240		35C, Swedish
	Teflon	gt 180		
.05	CPE	gt 180		
.38-.74	Neoprene	120 to gt 480	lt 90 to lt 900	
.16-.46	Natural Rubber	4 to gt 480	lt 10 to lt 900	
.60	Viton/neoprene	gt 60		
	Neo + Nat Rub 35	lt 600		
	Nitrile-PVC30	lt 9		
.50	PVA	6 to gt 240		Degrades, no water BkTh for mixtures
.15.51	PVC	4 to gt 480	lt 10 to lt 900	

gt = greater than

lt = less than

Appendix C

Non-mandatory Evaluation Criteria for Emergency Showers and Eyewashes

The criteria for acceptable eyewashes and quick drench showers should be taken from ANSI Z358.1-1981, which will be revised in the near future. The National Safety Council Data Sheet 1-686-Rev. 86 contains comparable criteria, but not identical specifications. Generally, the main criteria for judging acceptability are:

- (1) Initiation: one hand, one action. Once initiated, flow continues, leaving both hands free.
- (2) Location: 15 seconds, 25 feet travel, maximum (for highly concentrated solutions, 10 seconds, 10 feet maximum). Eyewashes positioned 34"-39" high, shower approximately 82" high, with 67" high activation (maximum), positioned 23" (maximum) off center from shower head. Location must be clearly marked, well lighted, and easily accessible; i.e., no obstacles, doorways, or turns.
- (3) Water quality: potable, temperature (60-100 degrees F, ideally 90-95 degrees F), pressure (eyewash 30 psi at supply line, shower 30 psi), amount (eyewash 3 gallons/minute for 15 minutes minimum, showers 30 gallons/minute for 15 minutes minimum), maintenance (float-away covers or means to prevent contamination; flush units weekly for a minimum of 3 minutes; bump test eyewashes daily, showers weekly; full flow testing monthly).

OSHA Instruction CPL 2-2.52 (cont.)

(4) Training: Routine drills advisable. As a minimum, employees must know the location and proper use of eyewashes and showers (i.e., initiate, remove contaminated clothing, flush full 15 minutes, etc.).

Appendix D

Start-up Dates

a. The following provisions were triggered as of February 2, 1988, (formaldehyde standard paragraphs):

- (a) Scope and application.**
- (b) Definitions.**
- (c) Permissible Exposure Limit (PEL).** The intent was to have no employees exposed above the PEL by February 2, 1988, (53 FR 46290, December 4, 1988).
- (e) Regulated areas.** Signs restricting entry to authorized personnel must be placed at the entry to all areas where either PEL is exceeded. An exception is when exposures are over a new PEL but below the old PEL's and the employer did not have adequate sampling data to comply with these requirements. Since the start-up date for monitoring was August 2, 1988, (except for laboratories) no exception should be given after this date.
- (g) Respiratory protection.** In general, these provisions were not triggered until November 2, 1988. They could be cited in the interim, however, if the employer had knowledge for at least 3 months that employees were exposed above a new PEL.
- (h) Protective equipment and clothing.**
- (i) Hygiene protection.**
- (j) Housekeeping.**
- (l) Medical surveillance.** (l)(1)(ii) and (l)(5). Emergency or when employees develop signs and symptoms of overexposure to formaldehyde. Because any formaldehyde-bearing products are dermal hazards and because of individual hypersensitivity to formaldehyde, signs or symptoms of overexposure may occasionally occur even though airborne levels are below the PEL's.
- (o) Recordkeeping.**

b. The following provisions are scheduled to be in effect as follows, formaldehyde standard paragraphs:

- (d) Exposure monitoring ... August 2, 1988.**
- (f) Methods of compliance ... February 2, 1989.**
- (g) Respiratory protection ... As soon as possible but no later than November 2, 1988.**
- (k) Emergencies ... August 2, 1988.**
- (l) Medical surveillance (except (l)(1)(ii) and (l)(5) ... August 2, 1988.**
- (n) Employee information and training ... April 4, 1988.**

c. Formaldehyde use in histology, pathology, and human or animal anatomy laboratories (including teaching laboratories) has the same effective dates as described above. All other laboratories had a delayed initial effective date of January 1, 1989, except for 29 CFR 1910.1048(c)--Permissible exposure limits--which was triggered February 2, 1988. All start-up dates for other laboratories are triggered after the effective date; e.g., exposure determination is to be completed by 6 months after January 1, 1989.

Appendix E

Formaldehyde Standard Triggering Events

Part I. Airborne Levels

A. Below AL and STEL But Above .1 ppm.

1. Exposure Determination.
2. Recordkeeping.
3. Training (Initial).
4. Medical Surveillance for Signs and Symptoms.

B. Above AL or STEL.

1. Initial Monitoring.
2. Periodic Monitoring.
 - a. At or Above AL ... Every 6 months.
 - b. At or Above STEL ... Once a year.
3. Medical Surveillance.
4. Training (annual).
5. Applicable provisions in A. above.

C. Above TWA or STEL.

1. Regulated Areas.
2. Methods of Compliance.
3. Respiratory Protection.
4. Applicable provisions are in A., B. above.

D. Greater than 100 ppm.

1. Full Body protection.
2. Applicable provisions are in A., B., and C. above.

Part II. Eye or Skin Contact.

A. Greater than or Equal to 1% Formaldehyde Solution.

1. PPE.
2. Hygiene protection.
 - a. Change Rooms.
 - b. Quick Drench Shower.

B. Greater than or Equal to 1% Formaldehyde Solution.

1. Eye Wash Facilities.
2. PPE.

C. Irritating or Sensitizing Formaldehyde Materials.

1. PPE.
2. Change Rooms.

Part III. Liquid or Gas.

OSHA Instruction CPL 2-2.52 (cont.)

A. Housekeeping

1. Leak Detection.
2. Preventative Maintenance.
3. Spill Clean-up.

Part IV. Possibility of Emergency.

- A. Emergencies
 - B. Respiratory Protection.
 - C. Medical Surveillance.
 - D. Training.
-

Appendix F

Considering SAEs for Exposure to Mixtures

Often an employee is simultaneously exposed to a variety of chemical substances in the workplace. Synergistic toxic effects on a target organ are common for such exposures in many construction and manufacturing processes. This type of exposure can also occur when impurities are present in single chemical operations.

New permissible exposure limits (PEL's) for mixtures, such as the recent welding fume standard (5 mg/m³), address the complex problem of synergistic exposures and their health effects. In addition, the Code of Federal Regulations (29 CFR 1910.1000) contains a computational approach to assess exposure to a mixture. This calculation should be used when the components in the mixture pose a synergistic threat to worker health.

Whether using a single PEL or the mixture calculation, the sampling and analytical error (SAE) of the individual constituents must be considered before arriving at a final compliance decision. These SAEs can be pooled and weighted to give a control limit for the synergistic mixture. To illustrate this control limit, the following example using the mixture calculation is shown:

The mixture calculation is expressed as:

$$Em = C1/L1 + C2/L2 + (Cn/Ln)(1)$$

Where:

Em = equivalent exposure for the mixture (Em should be 1 for compliance)

C = concentration of a particular substance

L = PEL

As an example, an exposure to three different but synergistic substances:

Actual Concentration of Material	8-hr Exposure (ppm)	8-hr TWA PEL (ppm)	SAE
Substance 1	500	1000	0.089
Substance 2	80	200	0.11
Substance 3	70	200	0.18

Using equation (1) above:

$$Em = 500/1000 + 80/200 + 70/200 = 1.25$$

OSHA Instruction CPL 2-2.52 (cont.)

Since E_m is gt 1 an overexposure appears to have occurred; however, the SAE for each substance also needs to be considered:

Exposure ratio (for each substance) $Y_n = C_n/L_n$

Ratio to total exposure $R_1 = Y_1/E_m' \dots R_n = Y_n/E_m$

The SAEs (95% confidence) of the substances comprising the mixture can be pooled by:

$$R_{St} = [R_1]^2 \times (SAE_1)^2 + (R_2)^2 \times (SAE_2)^2 + \dots (R_n)^2 \times (SAE_n)^2]^{1/2}$$

The mixture Control Limit (CL) is equivalent to: $1 + R_{St}$

If E_m is gt CL then an overexposure has not been established at the 95% confidence level; further sampling may be necessary.

If E_m is lt 1 and E_m is lt CL then overexposure has occurred (95% confidence).

gt = greater than
lt = less than

Using the mixture data above:

$$Y_1 = 500/1000, Y_2 = 80/200, Y_3 = 70/200$$

$$Y_1 = 0.5, Y_2 = 0.4, Y_3 = 0.35$$

$$R_1 = Y_1/E_m = 0.4, R_2 = 0.32, R_3 = 0.28$$

$$R_{St} = (0.4)^2(0.089)^2 + (0.32)^2(0.11)^2 + (0.28)^2(0.18)^2$$

$$R_{St} = (R_{St}^2)^{1/2} = 0.071$$

$$CL = 1 + R_{St} = 1.071$$

$$E_m = 1.25$$

Therefore E_m is gt CL and an overexposure has occurred within 95% confidence limits.

gt = greater than
lt = less than

This calculation is also used when considering a PEL such as the one for total welding fumes. An executable computer program is available which will calculate a control limit for any synergistic mixture. The program will run on any IBM compatible personal computer. For questions contact Rick Cee or Mike Shulsky at the OSHA Salt Lake City Laboratory.

OSHA Instruction STP 2-1.144

**January 19, 1988
Office of State Programs**

Subject: Occupational Exposure to Formaldehyde; Final Rule

A. Purpose. This instruction describes a Federal Program change to the Regions and State designees.

B. Scope. This instruction applies OSHA-wide.

C. Federal Program Change. This instruction describes a Federal Program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this instruction is forwarded to each State designee.
2. Provide a copy of the Federal Register notice to the State designee upon request.
3. Explain the technical content of the Federal Register notice at 52FR 46168, December 4, 1987, Occupational Exposure to Formaldehyde; Final Rule, to the State upon request.
4. Ensure that each State designee acknowledges receipt of this instruction in writing, within 30 days of notification, to the Regional Administrator. The acknowledgment should include (a) the State's plan to adopt and implement the standard revision, (b) the State's plan to develop an alternative standard, which is as effective, or (c) the reasons why no standard is necessary to maintain a program which is as effective.
5. Inform each State that the State must revise the State's standard to ensure that it remains at least as effective as OSHA's standard on Occupational Exposure to Formaldehyde, and submit a plan supplement within 6 months of the date of Federal publication.
6. The State may delay the effective date for those particular provisions of its standard for which the comparable Federal provisions delay effective dates; however, the delayed effective date of a State provision may be no later than the effective date of the comparable Federal provisions.

D. Interim Enforcement. Under 29 CFR 1953.23(a) and (b), State plan States are provided up to 6 months from publication of the Federal standard in the Federal Register to promulgate an identical or "at least as effective" standard. If a State, for whatever reason, is unable to promulgate a standard in a timely manner (6 months for a permanent standard, 30 days for an emergency temporary standard), the State shall be expected to provide assurance that it will enforce the substantive provisions of the new or revised Federal standard through such means as use of its general duty clause or equivalent, temporary adoption of an identical standard or an alternative, specified enforcement mechanism. Until such time as a State OSHA standard is promulgated and in effect, Federal OSHA will provide interim enforcement assistance, as appropriate.

E. Different State Standards. Section 18(c)(2) of the OSH Act requires that State standards be "at least as effective" as the Federal and, when applicable to products used or distributed in interstate commerce, the standards must be required by compelling local conditions and not unduly burden interstate commerce. In addition to the "at least as effective" criterion, this "product clause test" will be applied to State standards with substantively different requirements from the comparable Federal standards, as discussed in OSHA Instruction STP 2-1.117.

F. Background.

1. The general industry standard for formaldehyde (29 CFR 1910.1000 Table Z-2) that has been revised required employers to ensure that employee exposure not exceed 3 parts of formaldehyde per million parts of air (ppm) determined as an 8-hour time-weighted average (TWA) concentration. Furthermore, an employee's exposure to formaldehyde was not to exceed 5 ppm at any time during an 8-hour workshift, except for a maximum duration of 30 minutes, when the "acceptable maximum peak" concentration was not to exceed 10 ppm. OSHA adopted this

OSHA Instruction STP 2-1.144 (cont.)

standard in 1971 as a national consensus standard under section 6(a) of the OSH Act (29 U.S.C. 655). The source of the formaldehyde standard was the American National Standards Institute (ANSI).

2. OSHA has promulgated a revised occupational safety and health standard for occupational exposure to formaldehyde, 29 CFR 1910.1048. This standard reduces the permissible exposure limits (PELs) from 3 parts formaldehyde per million parts of air to 1 ppm as an 8-hour time-weighted average. The peak allowable exposure of 10 ppm (for up to 30 minutes) is revoked and the 5 ppm ceiling is reduced to 2 ppm as a 15-minute short term exposure limit (STEL). An "action level" of 0.5 ppm, measured as an 8-hour TWA, is included to minimize the compliance burden for employers whose employees have exceedingly low exposures to formaldehyde.

3. The new standard takes effect 60 days after publication with various requirements being phased in. Initial monitoring to determine exposure levels, initial medical surveillance, and implementation of an emergency procedure are to be completed within 6 months of the effective date; respiratory protection provisions within 9 months; and required engineering and work practice controls within one year. Pathology, histology and anatomy laboratories must follow the schedule set by the formaldehyde standard. For other laboratories, where exposure of formaldehyde is lower and less frequent, however, the effective date for most provisions has been set for September 1, 1988, by which time they should already be covered by a laboratory standard now being finalized.

4. The standard applies to all industries covered by the Occupational Safety and Health Act, including construction, maritime, and general industries.

RECORD ID

2934

STANDARD NUMBER
INFORMATION DATE

1910.1048(d)(1)(ii)(B); (i)(2); (i)(3); (j)(3); (k); 1910.1048(Appendix B)
891212

ABSTRACT

The employer is required to provide conveniently located quick drench showers in the event that employees are splashed with solutions of 1 percent or greater formaldehyde. The standard requires employers to provide appropriate eye wash facilities within the immediate work area for emergency use by any employee whose eyes are splashed with solutions containing 0.1 percent or more of formaldehyde. Each employer must develop a plan that addresses an appropriate response to all foreseeable emergencies, including spills. Sampling is required to determine the exposure of each employee who may be exposed at or above the action level (0.5 ppm TWA) or 2.0 ppm STEL, under any foreseeable conditions.

INTERPRETATION

29 CFR 1910.1048(d)(1)(ii)(B); (i)(2); (i)(3); (j)(3); (k);
1910.1048(Appendix B)

DEC 12, 1989

This is an update to our interim response to your letter concerning OSHA's formaldehyde standard (29 CFR 1910.1048). Please accept my apology for the delay in this reply.

The first issue is the application of paragraph (i) Hygiene protection to photographic processing facilities. You informed us that such facilities use formaldehyde containing products ranging in concentrations of 10 percent to 37 percent. Containers of these products range in size from 1.0 fluid ounce bottles up to 5.0 gallon containers. Because of the severe dermal effects that can occur when employees have skin contact with concentrated solutions of formaldehyde and because of the relative irreversibility of dermal sensitization to formaldehyde, the employer is required to provide conveniently located quick drench showers for employees who become splashed with solutions of 1 percent or greater formaldehyde as the result of equipment failure, improper work practices, or other emergencies. The availability of emergency showers should also help to lower any potentially serious inhalation hazard when an employee has been splashed with a formaldehyde solution.

For small spills, a faucet or small hand held unit could be used provided that all affected parts could be reached. The degree of sophistication of the emergency shower type varies with the size of the potential splash.

Liquid formaldehyde can also cause severe damage to the eyes. Thus, the standard requires employers to provide appropriate eye wash facilities within the immediate work area for emergency use by any employee whose eyes are splashed with solutions containing 0.1 percent or more of formaldehyde. Such units may be portable if they permit the eye to be flushed for at least 15 minutes. Since these requirements of the standard are triggered based on the percentage of formaldehyde in a solution, it is not appropriate for us to interpret that these provisions only apply when certain quantities of solutions are used. This is a call OSHA Area Directors make on a case-by-case basis when inspections are conducted.

The characterization of emergency plans in your letter is essentially correct. Each employer must develop a plan which addresses an appropriate response to all foreseeable emergencies, which may include spills. Any training, information and equipment required by a response plan must be given to employees. Spills are specifically covered by paragraph (j) housekeeping. Adequate provisions for containment, decontamination and cleanup must be made, and employees involved must have suitable equipment and training.

The formaldehyde standard's monitoring requirements are quite clear about the need for sampling to determine the exposure of each employee who may be exposed at or above the action level (0.5 ppm TWA) or 2.0 ppm STEL, under any foreseeable conditions of use. Objective data may be used to document that an employee's exposure will not exceed these levels. The data used must accurately represent every employee's exposure to formaldehyde, in all foreseeable conditions, in order to allow an exception to the requirement for sampling. Appendix B of the standard provides additional information and guidance.

exception to the requirement for sampling. Appendix B of the standard provides additional information and guidance.

OSHA has a variance procedure for those seeking an alternative to a particular requirement or standard. Employers must prove their conditions, practices, means, methods, operations or processes provide a safe and healthful workplace as effectively as would compliance with the standard. In making a determination, OSHA weighs the employer's evidence and arranges a variance inspection and hearing where appropriate.

If you would like more information on OSHA's variance procedures you can call (202) 523-7193.

RECORD ID

3350

STANDARD NUMBER
INFORMATION DATE

1910.1048(g)(2)(i); 1910.1048(a)
900622

ABSTRACT

This interpretation addresses application of the formaldehyde standard, 1910.1048, to private medical school personnel (e.g., faculty, graduate teaching assistants) and morgue technicians working at gross anatomy laboratories. The formaldehyde standard only requires personal protective equipment (PPE) which is appropriate to the hazards of the operation. The level of protection required is limited by the degree of hazard. Butyl and nitrile gloves, aprons or laboratory coats made of polyethylene, and chemical goggles are appropriate PPE. If there is the possibility that formaldehyde can be splashed in the eye or on the body, equipment suitable for flushing contaminated body parts must be provided.

(NOTE: The interpretation letter provides clarification of the standard with respect to medical schools and formaldehyde exposures.)

INTERPRETATION

29 CFR 1910.1048(g)(2)(i); 1910.1048(a)

JUN 22, 1990

This is in further response to your letter of May 23, concerning the application of the Occupational Safety and Health Administration's (OSHA) formaldehyde standard, 29 CFR 1910.1048, to private medical school personnel (e.g., faculty, graduate teaching assistants) and morgue technicians working at gross anatomy laboratories.

OSHA relies on information submitted by the public, as well as staff research, when formulating standards. The standard-setting process is designed so that interested parties have ample opportunity to provide initial input, review regulatory proposals, and provide comments. The record of submissions for the formaldehyde standard is quite extensive and contains material on exposures in a variety of settings, including gross anatomy laboratories. Enclosed are two such submissions. One from Dr. M an OSHA expert witness, primarily addresses methods of compliance and feasibility of controls. The other is a report of a Health Hazard Evaluation (HHE) or on-site investigation, conducted by the National Institute for Occupational Safety and Health (NIOSH) at the gross anatomy laboratory of the University of (State) Medical School. This report describes the evaluation methods, the existing conditions, and the recommendations for improvements.

In your mention of the special needs of the technical staff, you have recognized that each function has different hazard potentials and different requirements and that it is reasonable to provide protection accordingly. The formaldehyde standard only requires personal protective equipment (PPE) which is appropriate to the hazards of the operation, based on conditions of use. The level of protection required is limited by the degree of hazard. Dermatitis was one of the conditions noted in the NIOSH HHE section on medical surveillance, and the wearing of gloves is recommended as an effective prevention measure. While rubber gloves are mentioned, butyl and nitrile are the most effective barriers against formaldehyde. A 0.3 mm thickness of these materials resists chemical breakthrough for over 8 hours, and thinner gloves might be adequate for your needs. The newer polyethylene laminate disposable gloves have been tested to provide over 4 hours of effective protection with a thickness of 0.08mm. These materials are also available as aprons and arm coverings. Aprons or laboratory coats made of polyethylene or similar material may also provide effective body splash protection for students and faculty, if a hazard potential exists. If there is no potential for eye splash, based on experience and evaluation of the potential exposure, then eye protection would not be required. If there is splash potential, chemical goggles may provide sufficient protection.

If there is the possibility that formaldehyde can be splashed in the eye or on the body, equipment suitable for flushing contaminated body parts must be provided. If quantities are small or spills are limited to a small area, a full shower may not be necessary. Once again, the hazards in embalming areas may require a greater degree of protection so that showers may be necessary in these areas but not throughout the laboratory.

After reviewing the information provided, if you still feel that the use of PPE is infeasible, then it would be advisable for you to meet with OSHA staff to discuss how employee protection can be achieved.

SOURCE LETTERS

MAY 23, 1990

Thank you for your letter of May 16, 1990 in reply to my inquiry of April 2, 1990. (Copies attached) on behalf of the anatomy instructors in the medical schools of the United States.

The information you provided was not unfamiliar to us and, perhaps due to some lack of clarity in my letter, did not provide a constructive approach toward alleviating a pressing dilemma faced by every medical school in this country (as well as other programs in allied health). Specifically:

1. My letter was written not only on behalf of X University (which has been cited), but rather on behalf of the anatomy programs of all 126 medical schools which the AAMC represents. You state that, "Many institutions have instituted effective programs of hazard control," and advise us to, "... contact other medical schools to obtain information on means of employee protection and hazard control which have been found to be effective." In fact, from numerous direct contacts with the departments and through the Association of Anatomy Chairmen (AAC), we are aware of no medical school that has found a solution to the problem of utilizing the personal protective equipment (heavy protective gloves, aprons, masks, faceshields, etc.) and still being able to perform dissection and instruction in the gross anatomy laboratory. This reality was confirmed at a meeting of the AAC last month. It is this dilemma that poses an insurmountable problem for our medical schools. Your specific advice on this problem would be appreciated.
2. As also confirmed at the AAC meeting, we are not aware of any department of anatomy having been consulted prior to the enactment of the OSHA standard regarding personal protective equipment. Had thorough analysis been made, the conflict between this standard and the teaching function would have been pointed out. It would be helpful if you could indicate the source of expertise on this matter implied in the third paragraph of your letter.
3. We are well aware that high fume levels of formaldehyde have been imputed by some studies to be correlated with respiratory disease, and we regard good ventilation as a reasonable precaution. Many anatomical laboratories have been or are being equipped to provide in excess of 15 room changes per hour and vapor levels lower than 1 part per million. Provision of eye washes and labeling of materials is also not an unreasonable requirement. Showers will probably never be used.
4. Other than eye-splash, we are not aware of reliable evidence that dermal formaldehyde contact, as traditionally occasioned in well operated gross anatomy laboratories, is injurious to humans as implied in the second paragraph of your letter. While it is well-known that the various aldehydes kill and preserve cells and tissues when applied by immersion to small samples or by vascular perfusion to whole bodies, the contact with cornified epithelium which can occur in the course of dissection is better described as an irritant unless an individual has developed an allergic hypersensitivity (which is relatively rare). I have attempted to follow literature on this aspect personally, and have not found evidence that such contact in the teaching setting (as contrasted to industrial scenarios) has been shown to be harmful to human health. Again, it would be helpful if you would provide appropriate references for evidence to the contrary.
5. Relative to economic considerations, it is not unreasonable to require the stipulated personal protective equipment for technical staff who perform embalming and are most at risk for splashing from the agents. Their tasks don't frequently require the digital dexterity and close inspection as compared to dissection and teaching. Outfitting faculty and teaching assistants would not be economically unfeasible, but merely incompatible with their functions. However, what is mandated for faculty and staff must certainly be deemed desirable for students. Thus, even if students and faculty could be perceived as functioning and interacting garbed in personal protective equipment, the cost to outfit an average class of 120-125 students with this disposable gear is a heavy financial burden.

There are, of course, many other aspects of this problem, but perhaps the five alluded to above provide a better insight to the concerns than did my prior letter. I am informed by a former OSHA director that conflicts of this nature with OSHA standards are not uncommon; that it is difficult for OSHA to develop standards that do not have to be compromised in some necessary sector; and that in the past OSHA has stood ready to enter into appropriate dialogue and compromise when dilemmas such as described here have arisen.

MAY 16, 1990

Thank you for your inquiry of April 2 concerning the application of the Occupational Safety and Health Administration (OSHA) formaldehyde standard to private medical school personnel (e.g. faculty, graduate teaching assistants, and morgue technicians) working at gross anatomy laboratories.

As you note, OSHA promulgated a standard for formaldehyde in December 1987. This standard addresses employee protection from the health risks associated with formaldehyde exposure. The main health effects are respiratory cancer, dermatitis, sensory irritation (eye, nose, throat) and sensitization. In addition to the inhalation hazard, solutions of formaldehyde (such as the formalin used as a tissue preservative) can damage skin and eye tissue immediately upon contact. For this reason the standard requires effective protective equipment to prevent skin and eye contact, as well as eyewashes and showers if there is the possibility of splashes to eyes and body. There is a wide selection of effective protective equipment available which will prevent skin and eye contact to formaldehyde while allowing for relative comfort and ease of work. Your staff should consult with a safety and health professional to find specific equipment which will meet work requirements and reduce the hazard. Handling and storage procedures might also be modified to eliminate or reduce splash hazards.

As part of the standard development process, OSHA identified the types of establishments using formaldehyde, the levels of exposure, and numbers of employees exposed. Comments and testimony were solicited from all affected groups, and based on this information, the Agency made a determination of whether compliance with all the provisions of the standard are feasible in each of the types of user establishments. Agency economists also projected the costs of compliance. The formaldehyde record contains a good deal of information about control of formaldehyde hazards in histology, pathology and anatomy laboratories, and the agency's conclusion is that control of these hazards is feasible, both technically and economically.

Industrial hygienists and other health and safety experts have indicated that formaldehyde exposures are greatly reduced when ventilation rates exceed 15 room changes per hour. In addition, work practices should be developed that control sources of formaldehyde such as elimination of open containers and utilization of laboratory hoods where work permits. Where dilution ventilation and other measures are not sufficient, downdraft anatomy tables or local exhaust ventilation may be necessary. The National Institute for Occupational Safety and Health (NIOSH) has developed some ventilation designs for embalming tables that may be appropriate for your laboratories. If the use of such controls is infeasible in a particular application, or while controls are being installed, use of respirators is permitted, provided the respiratory protection requirements of the standard (paragraph g) have been met.

Many institutions have instituted effective programs of hazard control, including exposure monitoring, employee training and use of appropriate protective equipment, and are in compliance with the requirements of the formaldehyde standard. It might be valuable to contact other medical schools to obtain information on means of employee protection and hazard control which have been found to be effective.

APR 2, 1990

Last October, responding to an unidentified complaint concerning formaldehyde fumes, officials from OSHA inspected X University College of Medicine human dissection teaching laboratories. While finding no violation of permissible fume standards, OSHA cited the College for other violations of safety standards in the use of hazardous materials (see attached). The College of Medicine must demonstrate compliance with standards for employee safety by April 28, 1990 or face further sanctions which threaten the viability of the teaching program in anatomical sciences.

Compliance in this case does not relate to the welfare of students in the dissection course, but rather all who are regarded as employees - faculty, graduate teaching assistants, and morgue technicians. These individuals would now be required to be garbed in non-permeable rubberized aprons, heavy industrial arm-length gloves, and full face-mask. All containers of formaldehyde, phenol, alcohols, and other embalming ingredients would have to be labeled with warnings, and atmospheric fume levels of formaldehyde (for example) must be maintained below 1 part/million (a standard which has been quadrupled in stringency recently).

These standards have been promulgated primarily with the safety of industrial workers in mind. They are absolutely impossible to observe in the course of laboratory teaching and dissection practiced in one form or another by every medical school in the country.

While some gross anatomy laboratories probably warrant scrutiny and enforced upgrading, the vast majority are carefully controlled, and faculty are sensitive to maintaining clean, respectful, and well-ventilated conditions. There is no firm evidence that faculty, students, or service personnel serving in the normal gross-anatomy laboratory have been affected by the routine exposure to these necessary substances. Unlike industrial employees, these workers are generally exposed intermittently in the course of their duties. No less-toxic, economically feasible alternative methods of preservation have emerged despite persistent exploration for many years. Computed gross anatomical instruction (the so-called "electronic cadaver") is promising, but probably ten years away due to software development.

At present, it is unlikely that any medical school in this country, could meet the OSHA criteria and preserve its instructional functions. These functions are absolutely essential and fundamental to medical education. Hence the OSHA standards have the potential of shutting down the medical degree program of any school at which a complaint instigates an inspection

RECORD ID

4096

STANDARD NUMBER1910.1048(e)(1); (h)(2)(vii); (j)(4); (m)(3)(i); (m)(3)(ii); 1910.145(f)(8)(i);
1910.1030(g)(1)(i)(A); 1910.1030(g)(1)(i)(B); 1910.1200(f)(4)**INFORMATION DATE**

901206

ABSTRACT

This interpretation concerns labeling requirements under OSHA standards for Hazard Communication, Occupational Exposure to Formaldehyde, and Bloodborne Pathogens. Several workplace situations in funeral homes are clarified where exposures to formaldehyde and biological hazards may be require labeling or posting of signs.

INTERPRETATION29 CFR 1910.1048(e)(1); (h)(2)(vii); (j)(4); (m)(3)(i); (m)(3)(ii);
1910.145(f)(8)(i); 1910.1030(g)(1)(i)(A); 1910.1030(g)(1)(i)(B);
1910.1200(f)(4)

DEC 6, 1990

Thank you for your letter of September 19, to the Occupational Safety and Health Administration (OSHA) regarding compliance with the labeling requirements under OSHA standards for Hazard Communication, Occupational Exposure to Formaldehyde, and Bloodborne Pathogens. We apologize for the delay of this response.

Your letter requested clarification on several workplace situations in funeral homes where workplace exposures to formaldehyde may be required by OSHA's formaldehyde standard to be indicated by labeling or the posting of signs. You specifically requested our review of the following interpretations:

- * All entrances to a preparation room must be marked with the formaldehyde warning sign if the levels of formaldehyde in that work area exceed the Short Term Exposure Limit of 2 ppm or the Time Weighted Average of 1 ppm.
- * A formaldehyde label or tag must be on any formaldehyde contaminated waste being collected or stored for disposal, most times after cleaning up an accidental spill.
- * A formaldehyde warning label must be on formaldehyde contaminated laundry, clothing or protective equipment, most times as a result of an accidental splash or spill.

Under 29 CFR 1910.1048, Occupational Exposure to Formaldehyde, paragraph (e), Regulated Areas, any time the airborne concentration of formaldehyde exceeds either the time-weighted average (TWA) of 1 ppm or the short term exposure limit (STEL) of 2 ppm, all entrances and accessways to the area must be posted with a sign in accordance with the language provided by paragraph (e)(1) of the standard. Paragraph (j)(4) requires formaldehyde-contaminated waste to be labeled in such a way warning of formaldehyde's presence and of the hazards associated with formaldehyde." Paragraph (h) of the standard sets forth requirements for protective clothing and equipment, and sub-paragraph (h)(2)(ii) requires the employer to label formaldehyde-contaminated clothing and equipment with the specific language given in that subparagraph. Therefore, OSHA concurs with these interpretations.

The following situations were offered in your letter as scenarios where formaldehyde warnings or signs would not be required:

- * A formaldehyde warning sign need not be on all entryways in a funeral home in which embalming is done except on the preparation room doors where the STEL and TWA are exceeded.
- * A formaldehyde warning sign need not be on an embalming machine. Such a machine is a reservoir or tank into which embalming fluid and water is poured and a pump which empties the embalming fluid through the circulating system under pressure.
- * A formaldehyde warning does not have to be on the cabinets in which embalming chemicals with warning labels on them are stored.

With regard to the first paragraph cited above, and as mentioned in our previous discussion in this letter, wherever the STEL and/or TWA for formaldehyde are exceeded, the entryways or accessways must be labeled and a "regulated area" must be established. If embalming is done in an area other than the "preparation room" and either of the PELs (Permissible Exposure Limits, the TWA or STEL) are exceeded in that area, the area becomes a regulated area and must be so demarcated. The standard contains no requirement that "machines" must be labeled. However, if the work area surrounding the embalming machine you mention in the second paragraph above contains airborne concentrations of formaldehyde in excess of either of the PELs, then that area would become a regulated area and signs would have to be posted as required by paragraph (e).

With regard to your third scenario above, which discusses formaldehyde warning labels on cabinets in which embalming chemicals are stored, paragraphs (m)(1)(i) through (m)(4)(ii) of OSHA's Formaldehyde Standard, which set forth employers' requirements to provide workplace hazard warnings relative to employee exposure to formaldehyde-containing chemicals, have been administratively stayed by the Agency. At the present time, the labeling requirements for containers of formaldehyde mixtures or solutions are governed by the requirements of OSHA's Hazard Communication Standard (HCS), 29 CFR 1910.1200. A copy of the Federal Register notice of August 10 outlining the provisions of the stay is enclosed for your reference. This notice extends that stay until December 11 of this year. Under the HCS, there is no requirement to label cabinets used to store hazardous chemicals. Only the actual containers themselves must be labeled with the identity of the chemical and an appropriate hazard warning.

The two remaining interpretations you requested Agency clarification on were:

- * A biohazard label or color code should be used in association with the disposition of sharps.
- * A biohazard label should be on the bag or other receptacle used for potentially contaminated waste on or around the body at the time of removal from the place of death and on the bag or other receptacle containing "medical waste;" catheter, tubes, dressing and other waste removed by the funeral home because it had not been by the hospital or other place where death occurred.

At the present time, OSHA has not completed final rulemaking on its proposed standard entitled "Occupational Exposure to Bloodborne Pathogens" (Federal Register, Vol. 54, No. 102, May 30, 1989, pages 23042-23139). In the absence of a final standard on occupational exposure to bloodborne pathogens, OSHA is currently enforcing applicable general industry standards as set forth in the OSHA Compliance Instruction CPL 2-2.44B, "Enforcement Procedures for Occupational Exposure to Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV) (copy enclosed). OSHA standard 29 CFR 1910.145(f) sets forth requirements for the use of accident prevention signs and tags (see pages 17-19 of the OSHA Instruction). OSHA requires that a tag containing the word "biohazard" or the biological hazard symbol be affixed as closely as possible to the hazard. Bags or other receptacles containing potentially infectious materials may be identified by tagging or by means of red bagging. Again, the enclosed Instruction should be useful to you in providing further guidance in this area.

RECORD ID

1858

STANDARD NUMBER
INFORMATION DATE1910.1048(l)((4)(i); 1910.1048(h)(1)(ii); 1910.1048(h)(1)
890221

ABSTRACT

This clarification addresses whether only employees in the apparel industry with skin problems have to wear protective clothing under 1910.1048(h)(1)(ii) which provides that contact with irritating or sensitizing materials shall be prevented to the extent necessary to eliminate the hazard. The intent of this provision is for all employees who are in contact with irritating or sensitizing materials to have proper protective clothing and equipment in order to avoid irritation dermatitis and the serious problem of sensitization to formaldehyde.

INTERPRETATION

29 CFR 1910.1048(l)((4)(i); 1910.1048(h)(1)(ii); 1910.1048(h)(1)

FEB 21, 1989

SUBJECT: Formaldehyde Standard Clarification

This is in response to a request made by Mr. B of your staff concerning the intent of a provision in the Formaldehyde Standard (29 CFR 1910.1048).

The request involves employees in the apparel industry. The question concerns whether only employees with skin problems have to wear protective clothing under the following provision:

(h)(1)(ii): Contact with irritating or sensitizing materials shall be prevented to the extent necessary to eliminate the hazard.

The intent of this provision is for all employees who are in contact with irritating or sensitizing materials to have proper protective clothing and equipment in order to avoid irritant dermatitis and the serious problem of sensitization to formaldehyde.

Dermatitis in the textile and apparel industries is well documented, and formaldehyde is a well known sensitizer. The nature of skin disorders caused by handling textiles may be irritant or allergic dermatitis. Once sensitized, however, an employee will probably continue to react to small concentrations of formaldehyde for years. Dermal sensitization can severely limit a worker's ability to pursue employment and disrupt the worker's personal life since formaldehyde use in small amounts is pervasive in consumer products. Sensitization is clearly a serious and material impairment of health.

For enforcement purposes the compliance officer needs to document that a skin problem exists (and the extent of this problem in the plant) in order to show employer knowledge that the material is irritating or sensitizing. Next, the medical records may need to be examined in order to verify whether the cases are due to irritant dermatitis or if they are occurring in workers who react to formaldehyde at especially low levels because of sensitization from previous exposure to formaldehyde.

(Note: The medical surveillance provisions of the Formaldehyde Standard for employees who develop signs and symptoms of overexposure to formaldehyde came into effect February 2, 1988.)

1. When dermatitis is the result of skin sensitization from previous exposure to formaldehyde then only those employees with the skin problems need to be protected.
2. When the skin problems are the result of irritant dermatitis then, as a minimum, all employees who do the same job as the workers with the skin problems must be protected.

If there are legitimate safety concerns in having all employees wear PPE, then the employer, as a minimum, needs to have a program for identifying high risk groups and investigating outbreaks of dermatitis. The employer, through experience, is in the best position to identify products that are likely to cause dermatitis in employees. Irritant dermatitis may be an isolated event caused by handling one specific fabric, in which case the need for PPE would be limited. It is more difficult to impart wrinkle-

resistance to some types of cloth. These materials will likely contain higher free formaldehyde concentrations. Apparel manufacturers can, for example, request that suppliers of cloth provide estimates of free formaldehyde content in their fabrics or do the free formaldehyde testing themselves to determine whether PPE is needed.

RECORD ID

3802

STANDARD NUMBER
INFORMATION DATE

1910.1048(l)(2); 1910.1048(l)(1)(ii); 1910.1048(l)(4)
900808

ABSTRACT

This letter clarifies medical surveillance requirements of the formaldehyde standard. When an employer suspects that employees have signs or symptoms that may be related to their exposure to formaldehyde, the employer shall provide medical surveillance even when air monitoring results indicate levels at or below 0.5 ppm. The formaldehyde standard clearly states that medical surveillance shall be provided without loss of pay. This section applies to all medical procedures including nonroutine screening.

INTERPRETATION

29 CFR 1910.1048(l)(2); 1910.1048(l)(1)(ii); 1910.1048(l)(4)

AUG 8, 1990

This is in response to your letter of June 11, concerning the medical surveillance requirements of the formaldehyde standard (29 CFR 1910.1048).

Your first question is whether employers are exempt from providing medical surveillance when air monitoring results indicate levels below 1 ppm. One condition that triggers the availability of nonroutine screening to test for possible formaldehyde-related illness is when the employer suspects that employees have signs or symptoms that may be related to their exposure to formaldehyde. Section (l)(1)(ii) of the standard states in part:

"When determining whether an employee may be experiencing signs and symptoms of possible overexposure to formaldehyde, the employer may rely on the evidence that signs and symptoms associated with formaldehyde exposure will occur only in exceptional circumstances when airborne exposure is less than 0.1 ppm and when formaldehyde is present in materials in concentrations less than 0.1 percent."

This section is a guideline and not an exemption. The employer must consider all exceptional circumstances, such as, more than one worker reports problems, the onset of signs and symptoms coincide with a new process, cloth, etc.

Your other question concerns rights of workers to get medical attention without loss of pay. Section (l)(2) of the formaldehyde standard clearly states that medical surveillance shall be provided without loss of pay. This section applies to all medical procedures including nonroutine screening to test for possible formaldehyde-related illness when the employer suspects that employees have signs or symptoms that may be related to their exposure to formaldehyde.

SOURCE LETTER

JUN 11, 1990

After speaking to the Directorate of Health Standards, as well as the supervising I.H. in the Manhattan Area Office, I have been referred to your office in order to obtain written clarification of the Formaldehyde Standard, 1910.1048, Section 1, in particular item (1)(ii) and (2).

The (Company) and several garment industry employers with which the union has contract agreements, have differing interpretations of the above mentioned provisions in the Formaldehyde Standard. Several employers seem to believe that they are exempt from providing medical surveillance especially if they have air monitoring results which indicate levels below 1 ppm. This seems incorrect since section (1) does not state such an exemption.

I also question this assertion of an exemption since levels of formaldehyde in garment shops can vary widely from day to day given the constant turnover of fabric.

The union has also found a number of employers who are resistant to complying with a workers right to get medical attention without loss of pay.

This request for written clarification is especially important since the union has recently opened an occupational clinic as part of the well established XXX Health Center in (City). In order to comply with the Formaldehyde Standard, most employers have been open to workers using the occupational clinic, since the health center is free to any member and it is financed by a general health and welfare fund. Workers have been reluctant to seek this medical attention since most garment shop contracts provide no sick days (due to seasonal layoffs), and employers have been resistant to providing lost work pay.

The union intends to continue widespread worker education on the Formaldehyde Standard and encourage those with symptoms to seek the medical attention to which they are entitled. With written clarification from your office, the union hopes to diminish unnecessary misinterpretations and delays in compliance by clearly presenting to employers workers' rights under the standard.

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DOE Interpretations Guide to OSH Standards

July 1, 1992

OSHA Instruction CPL 2-2.52 CH-1

OCT 7, 1991
Office of Health Compliance Assistance

SUBJECT: Page Changes to OSHA Instruction CPL 2-2.52

- A. **PURPOSE.** This instruction transmits page changes and Appendix G to OSHA Instruction CPL 2-2.52. Subject: Enforcement Procedures for Occupational Exposure to Formaldehyde, dated November 20, 1990.
- B. **SCOPE.** This instruction applies OSHA-wide.
- C. **ACTION.** Replace existing pages with the attached CH-1 pages as follows:

Existing Pages	Replacement Pages
11-12	11-12
17-18	17-18
19-20	19-20
None	G-1

- D. **BACKGROUND.** On July 15, 1991, OSHA issued a proposed revision to the formaldehyde standard, 29 CFR 1910.1048, in a response primarily to a remand by the U.S. Court of Appeals for the D.C. Circuit in *UAW v. Pendergrass*, 878 F.2d 389 (D.C. Cir. 1989). The page changes address the interim enforcement policy as a result of the proposed amendments. In addition, a summary of the comparison of the current standard with the proposed changes is presented in Appendix G of this instruction. Additional changes to the directive will be made once the revisions to the standard are final.
- E. **FEDERAL PROGRAM CHANGE.** This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:
1. Ensure that a copy of this change is promptly forwarded to each State designee, using a format consistent with the Plan Change Two-way Memorandum in Appendix P, OSHA Instruction STP 2.22A CH-2.
 2. Advise the State designees that in responding to this change they should follow the Federal program change procedures contained in OSHA Instruction CPL 2-2.52, Paragraph E. 2. through 5.
 3. Ensure that the State designees submit a plan supplement, in accordance with OSHA Instruction STP 2.22A, Ch-3, as appropriate, following the established schedule that is agreed upon by the State and Regional Administrator to submit non- FOM/OTM Federal program changes.
 - a. If a State intends to follow OSHA's policy described in this instruction, the State must submit either a revised version of this instruction, adapted as appropriate to reference State law, regulations and administrative structure, or a cover sheet describing how references in this instruction correspond to the State's structure. The State's acknowledgment of the Plan Change Two- way Memorandum may fulfill the plan supplement requirement if the appropriate documentation is provided.
 - b. If the State adopts an alternative to Federal guidelines, the State's submission must identify and provide a rationale for all substantial differences from Federal guidelines in order for OSHA to judge whether a different State procedure is as effective as comparable Federal guidelines.

4. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel.

The remainder of this section has not been included in this update of the Guide due to the number of pages it contains. User requesting this compliance directive or further assistance may contact Federal or State OSHA offices. The DOE OSH Standards Interpretations Response Line is also a valuable resource of information and may be contacted at 1-800-292-8061, Monday - Friday, 8:00 a.m. - 4:00 p.m. EST.

contaminants which affect the same body systems as formaldehyde, citations should be issued per the FOM, Chapter IV, C.6.c. This manual cites paragraph 29 CFR 1910.1000(d)(2) of the Air Contaminants standard for use in cases where there are potential additive and synergistic effects. The Air Contaminants standard, 29 CFR 1910.1000(d)(2)(i), contains a formula which has the effect of proportionally reducing the PEL of each regulated toxic element of the multiple exposure. Paragraph (d)(2)(i) requires employers to meet these adjusted PELs where there is an exposure to a mixture of air contaminants regulated by Subpart Z.

- a. When documenting a violation, review the feasibility of abatement methods and identify the shared target organ effects of the contaminants. The body system primarily affected by formaldehyde is the respiratory system (upper and lower). The immune system may also be affected since formaldehyde is a sensitizer which provokes an IgE immunoglobulin mediated response. Appendix F contains guidance for calculating the adjusted PELs and SAEs (sampling and analytical errors). The adjusted PEL should apply only to enforcement of paragraphs (c) , Permissible Exposure Limit and (f) , Methods of compliance. The STEL and AL should not be adjusted for mixtures for compliance evaluations.
 - b. The proposed PEL cannot be enforced until the revisions are final. During the interim, it is important to advise the employer of the proposed PEL. Any citations written during the interim for PEL violations should include a notice of the proposed lower PEL in the narrative.
3. Paragraph (d), Exposure Monitoring. Paragraph (d) of the formaldehyde standard requires employers to determine their employees' exposure to formaldehyde if any mixture or solution present in the workplace contains 0.1 percent or more of formaldehyde, or if materials capable of releasing formaldehyde into the workplace air result in employees being exposed to formaldehyde at concentrations reaching or exceeding 0.1 ppm. The CSHO should verify the employee exposure via bulk or air samples.
 - a. Objective Data. The exposure determination must consist of actual measurements unless the employer can produce objective data to document that no employee will be exposed to formaldehyde at concentrations exceeding the 0.5 ppm (TWA) action level (AL), or the 2 ppm STEL under foreseeable conditions of use. Industry-wide studies or generic exposure estimates may be a source of objective data; however, the use of such data must accurately characterize actual employee exposures. For exposures less than the AL or STEL, area samples may also be used as the basis for exposure determinations, if they represent those exposures.
 - b. Medical Complaints. Regardless of employee exposure level, if there are employee health complaints, the employer is required to take action to determine employee exposure.
 - c. Exception. If mixtures or solutions composed of 0.1 percent or less of formaldehyde are used, employee exposure is below 0.1 ppm, and there are no employee health complaints then an employer should not be cited for not monitoring. (See 29 CFR 1910.1048(d)(1)(ii)(a))

- d. Repeat Monitoring. If there is a change in production, equipment, process, personnel, or control measures, which may result in a new or additional exposure to formaldehyde, the initial monitoring shall be repeated. For example, apparel manufacturers and other producers/users of formaldehyde resin finished fabrics may need to repeat initial determinations with different fabric lots.
 - e. Sampling Methods. As long as the method selected for sampling and analysis meets the criteria for precision and accuracy set out in the formaldehyde standard, the employer is free to choose from many methods available for monitoring exposure to formaldehyde.
 - (1) Among the methods available are the chromotropic acid method which relies on use of a midget impinger, gas employee exposed between the action level and the 1 ppm TWA limit is showing signs and symptoms that may be formaldehyde-related, the employer must administer to the employee a medical disease questionnaire without delay. If the physician determines, on the basis of the medical disease questionnaire, that it is necessary to examine the employee, the employee would then be sent to the physician for further examination.
 - (3) If exposures are less than 0.5 ppm but the employee is showing signs and symptoms that may be formaldehyde-related, the employee must be evaluated via a medical disease questionnaire, and further surveillance would be conducted on the basis of the physician's determination, as it is for concentrations between 0.5 and 1 ppm.
 - b. Paragraph (l)(3)(ii) requires the physician to make a determination, based on evaluation of the medical disease questionnaire, as to whether additional medical surveillance specified in paragraph (l)(4); i.e., a medical examination, is necessary to ensure the employee is not being placed at increased risk of material impairment of health from exposure to formaldehyde. In some cases, the physician will require additional information from the medical examinations before a final written opinion can be given. When the physician does not require additional information to reach a determination about the employee's health, the determination made in paragraph (l)(3)(ii) must be provided to the employer in writing, and a copy given to the employee within 15 days of its receipt by the employer.
 - c. Emergencies pose a very different situation from routine surveillance. If the employer has determined that an emergency situation could occur, then there must be a prior arrangement with a physician or hospital to ensure that any employee acutely exposed to formaldehyde in an emergency receives proper medical intervention, as required by paragraph (k). The plan must also specify what information should be given to emergency care providers, per the requirements of paragraph (1)(6), and how it is to be transmitted.
8. Paragraph (m), Hazard Communication. On December 13, 1988, OSHA announced in the Federal Register an administrative stay of paragraphs (m)(1)(i) through (m)(4)(ii) of the formaldehyde standard. OSHA has extended the stay until the revision to the standard is final.
- a. In the interim, OSHA will continue to enforce the HCS with respect to formaldehyde. For abatement purposes one can meet the proposed hazard communication provisions of the formaldehyde standard.
 - b. Paragraph (m)(1) was not stayed. It reemphasizes that hazard communication covers formaldehyde exposures occurring in the manufacture and use of wood products. When applicable, this paragraph shall be cited along with appropriate violations under the HCS.

9. Paragraph (n), Employee Information and Training.
 - a. All employees exposed to formaldehyde at concentrations at or above 0.1 ppm or to solutions containing greater than 0.1 percent or more of formaldehyde must receive initial training upon hire.
 - b. All employees exposed at or above the action level or the STEL must be trained annually.
 - c. The administrative stay on paragraph (m), Hazard Communication, does not affect the status of the training requirements under (n).
 - (1) Training for formaldehyde conducted after April 4, 1988, must cover all applicable requirements contained in paragraph (n)(3) of the new formaldehyde standard. (See March 2, 1988, Federal Register, at 53 FR 6628.)
 - (2) Employees previously trained on formaldehyde's hazards under the HCS (29 CFR 1910.1200) must be retrained in order to cover additional information contained in the new formaldehyde standard.
 - (3) Retraining and initial training for employees not previously covered by 29 CFR 1910.1200 must be provided as soon as possible once the employer has identified that they are exposed to formaldehyde. A reasonable amount of time should be given the employer to permit identification of affected employees and to obtain training materials. In no case should more than 3 months after completion of monitoring be permitted. (Note that the start-up date for initial monitoring was by August 2, 1988.)
 - (4) The training provisions of paragraph (n) are to be cited rather than the HCS information and training requirements if the employee is covered by (n).
 - d. Appendix A to the formaldehyde standard provides general information which is appropriate for a training program. This outline would need to be supplemented by plant specific information. In addition, the OSHA hazard recognition training program on formaldehyde may be of assistance to employers who need to train employees. The program includes information on the new standard but it is being revised to more fully reflect the changes. (See OSHA Fact Sheet 89-27.)
10. Paragraph (p), Dates. Since all dates in this section have passed, all paragraphs are in effect for all industries. Appendix D to this instruction gives specific effective dates by paragraph.
11. Supplemental Information. Appendix E to this instruction summarizes the formaldehyde standard triggering events.
- J. HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200). For abatement purposes one can comply with the proposed hazard communication provisions of the formaldehyde standard.
- K. INSPECTION PROCEDURES. The following procedures shall be followed in addition to the guidance in the FOM, OTM, and IMIS Forms Manual.
 1. Authorization to Review Limited Medical Information. Appropriately qualified compliance personnel are authorized to review medical disease questionnaires and medical opinions mandated by the formaldehyde standard when the limitations and procedures in OSHA Instructions CPL 2-2.30 and CPL 2-2.33 are followed.
 - a. Qualified compliance personnel are industrial hygienists or professionals with training in medical disciplines.

- b. This authorization is pursuant to 29 CFR 1913.10(b)(6).
2. **Recording in the IMIS.** In addition to current instructions for completing the OSHA-1, as found in the IMIS Manual, the following shall be recorded in Item 42 for all inspections where employee exposure to formaldehyde is investigated for compliance with 29 CFR 1910.1048 and/or 29 CFR 1910.1200.

Type	ID	Value
N	16	Form

3. **Contested Cases.** For contested cases of 29 CFR 1910.1200 involving formaldehyde which the Regional Administrator supports as strong cases, the Regional Administrator shall expeditiously send a brief memorandum summarizing the facts to the Director, Directorate of Compliance Programs. After the information is reviewed at the National Office, the Regional Administrator will be notified if the

The remainder of this compliance directive has not been included in this update of the Guide due to the number of pages it contains. User requesting this compliance directive or further assistance may contact Federal or State OSHA offices. The DOE OSH Standards Interpretations Response Line is also a valuable resource of information and may be contacted at 1-800-292-8061, Monday - Friday, 8:00 a.m. - 4:00 p.m. EST.

Appendix G

COMPARISON OF THE CURRENT PROVISIONS OF THE FORMALDEHYDE STANDARD, 29 CFR 1910.1048, WITH THE PROPOSED AMENDMENTS

CURRENT

PEL is 1.0 ppm TWA.

Action level is 0.5 ppm TWA.

STEL is 2.0 ppm (15 min.).

Exposure monitoring is conducted initially over 0.1 ppm, and continued periodically at or above the action level or STEL.

Medical removal:

No current provisions.

Hazard Communication:

Label identifying "formaldehyde", the name and address of responsible party and containing appropriate hazard warnings including "Potential Cancer Hazard" required at 0.1% or 0.1 ppm.

MSDS required at 0.1% or
0.1 ppm

Training required initially at 0.1 ppm or to solutions containing greater than 0.1% or more formaldehyde. Repeated annually at or above action level or STEL.

PROPOSED

PEL is reduced to 0.75 ppm TWA

No Change

No Change

In addition to current provisions, exposure monitoring will be initiated upon report of signs or symptoms of respiratory or dermal conditions

Medical removal:

- Two week evaluation/remediation period.
- Wages, seniority, benefits maintained.
- Limited to 6 months per determination.
- Multiple physician review.

Hazard Communication:

No changes except the following for solid materials capable of releasing formaldehyde:

- Label identifying "formaldehyde" and that physical and health hazard information is available from employer and MSDS's required at 0.1 ppm. -Label including "Potential Cancer Hazard" required above 0.5 ppm

No change

Training required initially and annually above 0.1 ppm.

OSHA Instruction STP 2-1.144A

August 10, 1992
Office of State Programs

SUBJECT: Occupational Exposure to Formaldehyde; Final Rule

- A. **PURPOSE.** This instruction describes a Federal Program Change to the Regions and State designees.
- B. **SCOPE.** This instruction applies OSHA-wide.
- C. **REFERENCE.** OSHA Instruction STP 2-1.117, August 31, 1984, State Standards.
- D. **CANCELLATION.** OSHA Instruction STP 2-1.144, January 19, 1988, Occupational Exposure to Formaldehyde; Final Rule, is canceled.
- E. **FEDERAL PROGRAM CHANGE.** This amended instruction describes a Federal Program Change which affects State programs. Each Regional Administrator shall:
 - 1. Ensure that this amended instruction is forwarded to each State designee.
 - 2. Provide a copy of the Federal Register notice to the State designee upon request.
 - 3. Explain the technical content of the Federal Register Notice at 52 FR 46168, December 4, 1987, Occupational Exposure to Formaldehyde; Final Rule; the Federal Register Notice at 57 FR 22307, May 27, 1992, Occupational Exposure to Formaldehyde; Response to Court Remand; Final Rule Amendment; the Federal Register Notice at 57 FR 24701, June 10, 1992, Occupational Exposure to Formaldehyde; Correction; the Federal Register Notice at 57 FR 27160, June 18, 1992, Occupational Exposure to Formaldehyde; Corrections, to the State designees upon request.
 - 4. Inform each State designee that under 29 CFR 1953.23(a) and (b), the State must, within six months of the date of each Federal Register publication listed in item 3 above, amend its final rule or adopt the final rule to ensure that the State standard is at least as effective as the Final Rule for Occupational Exposure to Formaldehyde 29 CFR 1910.1048. The State must submit a plan supplement to the Regional Administrator within 30 days of State promulgation.
 - 5. Ensure that each State designee acknowledges receipt of this instruction in writing, within 30 days of notification, to the Regional Administrator. The acknowledgment should include (a) the State's plan to adopt and implement the standard change, (b) the State's plan to develop an alternative change, which is as effective, or (c) the reasons why no change is necessary to maintain a program which is as effective as the Federal program.
- F. **DIFFERENT STATE STANDARDS.** Section 18(c)(2) of the Act requires that State standards be "at least as effective" as the Federal and, when applicable to products used or distributed in interstate commerce, the standards must be required by compelling local conditions and not unduly burden interstate commerce. In addition to the "at least as effective" criterion, this "product clause test" will be applied to State standards with substantively different requirements from the comparable Federal standard, as described in STP 2-1.117. A State standard expanded in scope from the Federal is considered to be a substantively different standard.
- G. **INTERIM ENFORCEMENT.** Under 29 CFR 1953.23(a) and (b), State plan States are provided up to six months from publication of the Federal standard in the Federal Register to promulgate an identical or "at least as effective" as standard. If a State, for whatever reason, is unable to promulgate a standard in a timely manner (six months for a permanent standard, 30 days for an emergency temporary standard) the State shall be expected to provide assurance that it will enforce the substantive provisions of the new or revised Federal standard through such means as use of its

general duty clause or equivalent, temporary adoption of an identical standard, or an alternative, specified enforcement mechanism.

- H. **EFFECTIVE DATES.** The final rule becomes effective on June 26, 1992. The respiratory protection requirement to meet the amended PEL of 0.75 ppm TWA must be provided as soon as possible, but no later than September 24, 1992. The engineering and work practice controls requirement to meet the amended PEL of 0.75 ppm TWA must be provided as soon as possible, but no later than June 26, 1993. The medical removal protection provisions including the multiple physician review mechanism must be implemented no later than December 28, 1992. The hazard communication labeling provisions contained in amended paragraph (m) must be implemented no later than December 28, 1992. NOTE: Labeling of containers of formaldehyde products must continue to comply with the provision of 29 CFR 1910.1200(e) through 1910.1200(j) until that time. The periodic training mandated for all employees exposed to formaldehyde between 0.1 ppm and 0.5 ppm must begin no later than August 25, 1992. The initial effective date for an identical or different State standard may be no later than the date of State promulgation or the Federal effective date, whichever is later. Where a Federal standard contains delayed effective dates for various provisions, the State effective dates for these provisions may be no later than the delayed Federal dates or the date of State promulgation, whichever is later.

I. **EXPLANATION**

1. On December 4, 1987, OSHA issued a comprehensive regulation covering occupational exposure to formaldehyde at 29 CFR 1910.1048. This rule reduced the permissible exposure limits (PEL's) to 1 part formaldehyde per million parts of air (ppm) as an 8-hour time-weighted average (TWA), and established a 2 ppm 15-minute short term exposure limit (STEL). The comprehensive standard also included an "action level" of 0.5 ppm, measured as an 8-hour TWA, and provisions for employee exposure monitoring, medical surveillance, recordkeeping, regulated areas, emergency procedures, preferred methods to control exposure, maintenance and selection of personal protective equipment, and hazard communication.
2. The standard was challenged in the U.S. Court of Appeals for the District of Columbia Circuit pursuant to section 6(f) of the Occupational Safety and Health Act of 1970 by both industry and labor for different reasons.
3. On May 27, 1992, OSHA amended its existing regulation for occupational exposure to formaldehyde, 29 CFR 1910.1048, in response primarily to a remand by the U.S. Court of Appeals for the D.C. Circuit in *UAW v. Pendergrass*, 878 F.2d 389 (D.C. Cir. 1989).
4. The final amendments lower the permissible exposure level for formaldehyde from 1 ppm as an 8-hour TWA to an 8-hour TWA of 0.75 ppm. The amendments also add medical removal protection provisions to supplement the existing medical surveillance requirements for those employees suffering significant eye, nose or throat irritation and for those suffering from dermal irritation or sensitization from occupational exposure to formaldehyde.
5. In addition, certain changes have been made to the standard's hazard communication and employee training requirements. These amendments establish specific hazard labeling requirements for all forms of formaldehyde, including mixtures and solutions composed of 0.1% or greater of formaldehyde and materials capable of releasing formaldehyde into the air, under reasonably foreseeable conditions of use, at concentrations reaching or exceeding 0.1 ppm. For materials capable of releasing formaldehyde at levels of 0.1 ppm to 0.5 ppm, labels must identify that the product contains formaldehyde, list the name and address of the responsible party, and state that further information is available from the employer and material safety data sheet. Additional hazard labeling, including a warning that formaldehyde presents a potential cancer hazard, is required where formaldehyde levels, under reasonably foreseeable conditions of use, may potentially exceed 0.5 ppm. The final amendments also provide for annual training of all employees exposed to formaldehyde at levels of 0.1 ppm or higher.

6. On June 10 and June 18, 1992, OSHA corrected errors that appeared in the final rule which was published on May 27, 1992.

OSHA Instruction CPL 2-2.38C

OCT 22, 1990

Subject: Inspection Procedures for the Hazard Communication Standard, 29 CFR 1910.1200, 1915.99, 1917.28, 1918.90, 1926.59, and 1928.21

- A. Purpose.** This instruction establishes policies and provides clarifications to ensure uniform enforcement of the Hazard Communication Standard (HCS).
- B. Scope.** This instruction applies OSHA-wide.
- C. References.**
1. OSHA Instruction CPL 2.45B, June 15, 1989, the Revised Field Operations Manual (FOM).
 2. OSHA Instruction STP 2-1.117, August 31, 1984.
 3. Voluntary Training Guidelines, Vol. 49, FR 30290, July 27, 1984.
 4. 29 CFR 1910.20, Access to Employee Exposure and Medical Records.
 5. 29 CFR 1910.1047, Ethylene Oxide.
 6. 29 CFR 1910.1000, Air Contaminants, Vol. 54, FR 2332, January 19, 1989.
 7. The HCS was recodified and referenced as 29 CFR 1910.1200 for General Industry, 1915.99 for Shipyard Employment, 1917.28 for Marine Terminals, 1918.90 for Longshoring, 1926.59 for Construction and 1928.21 for Agriculture. For convenience this instruction will reference only applicable paragraphs. The appropriate sections of the CFR shall be referenced for citation purposes when inspections are performed in those respective industries.
- D. Cancellation.** OSHA Instruction CPL 2-2.38B, August 15, 1988, is canceled.
- E. Action.** OSHA Regional Administrators and Area Directors shall use the guidelines in this instruction to ensure uniform enforcement of the HCS. The Directorate of Compliance Programs will provide support as necessary to assist the Regional Administrators and Area Directors in enforcing the HCS.
- F. Federal Program Change.** This instruction describes a Federal Program change which affects State programs. Each Regional Administrator shall:
1. Ensure that this change is forwarded to each State designee.
 2. Explain the technical content of the change to the State designee as requested.
 3. Advise the State designees that as a result of further court actions, all provisions of the Federal HCS are now in effect in all segments of industry. The compliance date for programmed inspections in the construction industry and the three previously disapproved provisions was extended to March 17, 1989. States not already enforcing in all industries were expected to have done so by that date.
 4. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing to the Regional Administrator as soon as the State's intention is known, but not later than 70 calendar days after the date of issuance (10 days for mailing and 60 days for response). This acknowledgment must include the State's intention to follow OSHA's policies and procedures described in this instruction, or a description of the State's alternative policy and/or procedure which is "at least as effective" as the Federal policy and/or procedure or of the reasons why the change should not apply to that State.

OSHA Instruction CPL 2-2.38C (cont.)

5. Ensure that the State designees submit a plan supplement, in accordance with OSHA Instruction STP 2.22A, Ch-3, as appropriate, following the established schedule that is agreed upon by the State and Regional Administrator to submit non-Field Operations Manual/Technical Manual/Federal Program Changes.
 - a. If a State intends to follow the revised inspection procedures described in this instruction, the State must submit either a revised version of this instruction, adapted as appropriate to reference State law, regulations and administrative structure, or a cover sheet describing how references in this instruction correspond to the State's structure. The State's acknowledgment letter may fulfill the plan supplement requirement if the appropriate documentation is provided.
 - b. If the State adopts an alternative to Federal enforcement inspection procedures, the State's plan supplement must identify and provide a rationale for all substantial differences from Federal procedures in order for OSHA to judge whether a different State procedure is as effective as a comparable procedure. An alternative enforcement policy would presumably be necessary in a State with a right-to-know law or a different hazard communication standard.
 - c. Any State which has a right-to-know law shall also document in the plan supplement how enforcement of the right-to-know law substitutes for, relates to or interfaces with the hazard communication standard, and how the State maintains separation of any public/community right-to-know enforcement activities from its approved State plan workplace operations.
 6. After Regional review of the State plan supplement and resolution of any comments thereon, forward the State submission to the National Office in accordance with established procedures. The Regional Administrator shall provide a judgment on the relative effectiveness of each substantial difference in the State plan change and an overall assessment thereon with a recommendation for approval or disapproval by the Assistant Secretary.
 7. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State personnel.
- G. Special Identifiers. The sections of this instruction which are marked with an asterisk (*) have particular relevance to construction employers.
- H. Background. A final Hazard Communication Standard (HCS), 29 CFR 1910.1200, covering the manufacturing sector, Standard Industrial Classification Codes (SIC) 20- 39, was published in the Federal Register on November 25, 1983 (48 FR 53280). As a result of a court challenge, OSHA was ordered by the U.S. Court of Appeals for the Third Circuit to expand the scope of the standard without further rulemaking.
1. On August 24, 1987, a final rule covering all employers was published in the Federal Register. Due to subsequent court and administrative actions, OSHA was prevented from enforcing the rule in the construction industry and from enforcing in all industries three requirements dealing with providing and maintaining material safety data sheets (MSDS's) on multi-employer worksites, coverage of consumer products, and the coverage of drugs in the non-manufacturing sector.
 2. As a result of the February 21, 1990, Supreme Court decision (see *Dole, Secretary of Labor, et. al., v. United Steelworkers of America et. al.*, No. 88-1434), all provisions of the rule are now in effect for all industrial segments, including the three previously stayed provisions mentioned above. OSHA extended the compliance date until March 17, 1989, for programmed inspections in the construction industry.
- I. Organization of this Instruction. Compliance guidelines are addressed within the main part of this instruction. Clarifications, interpretations, review aids and other information are provided in Appendices A through D. This format will permit easier updating and additions, as enforcement experience provides more information regarding these areas.

OSHA Instruction CPL 2-2.38C (cont.)

1. Appendix A of this instruction provides clarifications of provisions of the standard where significant interpretations have been necessary to ensure uniform enforcement and understanding.
 2. Appendix B provides a sample letter for inquiries regarding missing or deficient MSDS and labels.
 3. Appendix C provides general guidelines for evaluation of hazards.
 4. Appendix D provides a guide for reviewing MSDS.
- J. Inspection Resources.** Compliance Safety and Health Officers (CSHOs) shall evaluate employer compliance with the HCS during the course of all inspections. (See the FOM, Chapter III, D.7.a.2.)
1. Both safety and health CSHOs shall evaluate employer compliance with the written program requirements, use of labels, availability of MSDS and appropriate training.
 2. CSHOs of one discipline shall consult with those of the other when specific expertise is necessary to evaluate elements of the employer's program.
- K. Inspection Guidelines.** The following guidelines apply to all inspections conducted to determine compliance with the HCS:
1. **Inspection Guidance.** The HCS incorporates both specification and performance requirements which are result-oriented, thereby providing goals for achievement and allowing employers the flexibility to develop a program suitable for their particular facility. In evaluating compliance with the rule, CSHOs should always consider whether the intent of the provisions have been met. CSHOs must exercise a high level of professional judgment during compliance inspections. The standard itself, and the preamble accompanying it, are to be consulted for further guidance.
 2. **Special Documentation.** In addition to those items required by the FOM, Chapter IV, C. 8. as applicable, when citations are recommended, the CSHO shall document the following on the OSHA-1B or, as appropriate, elsewhere in the case file:
 - a. Name of the chemical(s).
 - b. Name of the person preparing the hazard determination, written program, label, MSDS, etc. and for whom they work.
 - c. CSHOs shall ensure that the number of employees who may be exposed (including potential exposure) to the chemical in the establishment is documented.
 - d. If a chemical manufacturer, importer, or distributor is inspected, indicate the name of a downstream employer who receives the chemical, including company name, address, and potential or actual downstream employee exposure.
 - e. Health and physical hazards.
 - f. If practical, include a photocopy or a photograph of inaccurate and/or any incomplete label(s)/MSDS in the case file. Otherwise document the specific deficiency in the case file. If the volume of inaccurate/incomplete MSDS cannot reasonably be included in the file, then a representative number should be documented, indexing those referenced in the citation.
 3. **Scope and Application - Paragraph (b).** The HCS requires labels and MSDS to be transmitted from chemical manufacturers and importers to distributors to employers to employees. No barrier to this information flow is permitted.
 - a. This paragraph outlines exemptions to full coverage of the standard. A complete exemption from all requirements of the HCS applies for only those items listed under (b)(6) and should not be confused with the labeling exemptions at (b)(5) which only apply when chemicals are subject to the labeling requirements of certain Federal agencies.

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- b. Laboratories and sealed containers are dealt with in a limited fashion as per paragraphs (b)(3) and (b)(4).**
- c. Inspection Guidelines. As explained in H.2. of this instruction, the HCS has been fully enforceable in all SIC's since March 17, 1989.**
 - (1) The Scope and Application paragraph (b) of the HCS requires "all employers to provide information to their employees about the hazardous chemicals to which they are exposed, by means of a hazard communication program, labels and other forms of warning, material safety data sheets and information and training." (Emphasis added.)**
 - (2) The expansion of the standard to all industries via the August 24, 1987, final rule obligates all employers to comply with the provisions of the HCS. Employers must provide their employees with information on hazardous substances which are known to be present at the worksite.**
 - (3) The scope paragraph clearly states that the HCS applies to employers if they know hazardous chemicals are present in a manner that employees may be exposed, regardless of whether the employer has created the chemical exposure. The multi-employer worksite provisions of paragraph (e)(2) ensure that employers are able to obtain the information they need to be able to meet these obligations.**
 - (4) In some cases, a hazardous chemical may be present for a long period of time without an employee exposure until repair or demolition activities are performed. By way of example, employers involved in work operations where jackhammers are being used to break up a sidewalk know that they are exposing their employees to a hazardous chemical (silica), even though they did not "bring" the hazard to the site. Even though other provisions of the standard may not be enforceable (MSDS and labels), the employer should still develop a hazard communication program to inform their employees "about the hazardous chemicals to which they are exposed." Employers may utilize their already existing hazard communication program to communicate information on these types of hazards to their employees, as per paragraph (e)(3).**

4. Hazard Determination - Paragraph (d). Only chemical manufacturers and importers are required to perform hazard determinations on all chemicals they produce or import, although distributors and employers may choose to do so. Hazard determination procedures must be in writing and made available, upon request, to employees, the National Institute for Occupational Safety and Health (NIOSH), and OSHA. Appendix C is provided as a guide for use when assessing the hazard evaluation procedures.

- a. Inspection Guidelines. The adequacy of a company's hazard determination program can be assessed primarily by examining, (or reviewing) the outcome of that determination; i.e., the accuracy and adequacy of the information on labels and MSDS. The written hazard evaluation procedures generally describe the process followed; they do not have to address each chemical evaluated. The chemical manufacturer, importer, employer or distributor performing the hazard determination ("the preparer"), shall be asked to forward the written hazard determination procedures to the Area Director when they are not immediately available at the establishment. A reasonable time period, not exceeding 5 working days, shall be allowed for receipt in the Area Office.**
 - (1) Although not required, many companies will keep records of individual chemical evaluations. In the event of a finding by the CSHO of an inaccurate determination, as indicated by inaccurate information on the MSDS or label, these records may be useful in identifying where the company's evaluation differed from OSHA's, and for documentation of appropriate violations.**

- (2) In general, the hazard evaluation procedures should address the following:
 - (a) The sources of information to be consulted. Evaluators should have access to a wide range of sources. While well-known chemicals could be adequately evaluated by consulting established reference texts, others will require searches of bibliographic data bases.
 - (b) Criteria to be used to evaluate the studies, including those parameters addressed by the HCS (i.e., statistical significance; whether or not the evaluation was conducted according to established scientific principles).
 - (c) A plan for reviewing information to update the MSDS if new and significant health information is found.
 - (3) The hazard evaluation must include an assessment of both physical and health hazards. The chemical manufacturer or importer must consider the potential exposures that may occur when downstream employers use the product, and address the hazards that may result from that use on the labels and MSDS prepared for the product. It is important to note that employee "exposure" as defined by the HCS includes any route of entry (inhalation, ingestion, skin contact or absorption) and also includes potential (e.g., accidental or possible) exposure, including foreseeable emergencies. Only by considering all these factors can the chemical manufacturer or importer truly assess the hazards encountered during anticipated use of his product. The mere presence of a chemical in a product does not necessarily result in coverage; it must be available for exposure.
 - (4) Evaluations with respect to carcinogen labeling and MSDS notations are addressed in those respective sections below as well as in Appendix A which also contains specific information on mineral oils.
- b. Citation Guidelines. Citations for violations of paragraph (d)(1) shall be issued when the preparer has failed to perform a hazard determination. Paragraphs (d)(2), (d)(3) and (d)(4) of the standard shall be used, as appropriate.
- (1) If the preparer has developed MSDS but does not have the written procedures available that were used to determine the hazards of the chemical(s), then a violation of paragraph (d)(6) exists and shall be recommended for citation.
 - (2) If the preparer has not developed an MSDS and no written procedures are available, then apparent violations of both paragraphs (d)(1) and (d)(6) exist and shall be recommended for citation. (Refer to K.7.b. of this instruction for guidance.)
 - (3) Chemical manufacturers or importers are not required to test their products to evaluate their hazards. If a mixture has been tested, the resulting data would apply. If it has not been tested as a whole, the mixture is assumed to present the same hazards as its component parts. If the employer chooses to rely on upstream chemical manufacturers' hazard determinations for the component parts of his mixture, he may do so but must so specify in his written hazard determination procedures. MSDS for each of the component parts must be physically grouped together in order to meet the chemical manufacturer's hazard determination requirements. Certain information has to be provided for the mixture as a whole for the combined MSDS; e.g., identity, manufacturer's name, address, etc.

5. Written Hazard Communication Program, Paragraph (e).

CSHOs shall review the employer's written hazard communication program to determine if all applicable requirements of paragraph (e) have been addressed. The HCS obligates all employers who may expose their employees to hazardous chemicals to develop a written program, regardless of whether or not they introduced the hazard into the workplace.

OSHA Instruction CPL 2-2.38C (cont.)

- a. Inspection Guidelines.** Ideally, and if readily available, the written program should be reviewed first, prior to ascertaining whether the elements of the program have been implemented in the workplace.
 - (1)** The CSHO shall determine whether or not the employer has addressed the issues in sufficient detail to ensure that a comprehensive approach to hazard communication has been developed.
 - (2)** In general, the written program should consider the following elements where applicable:
 - (a) Labels and Other Forms of Warning.**
 - 1** Designation of person(s) responsible for ensuring labeling of in-plant containers.
 - 2** Designation of person(s) responsible for ensuring labeling on shipped containers.
 - 3** Description of labeling system(s) used.
 - 4** Description of written alternatives to labeling of in-plant containers, where applicable.
 - 5** Procedures to review and update label information when necessary.
 - (b) Material Safety Data Sheets.**
 - 1** Designation of person(s) responsible for obtaining/maintaining the MSDS.
 - 2** How such sheets are to be maintained (e.g., in notebooks in the work area(s), via a computer terminal, in a pick-up truck at the job site, via telefax) and how employees obtain access to them.
 - 3** Procedure to follow when the MSDS is not received at the time of the first shipment.
 - 4** For chemical manufacturers or importers, procedures for updating the MSDS when new and significant health information is found.
 - (c) Training.**
 - 1** Designation of person(s) responsible for conducting training.
 - 2** Format of the program to be used (audiovisuals, classroom instruction, etc.).
 - 3** Elements of the training program-- compare to the elements required by the HCS (paragraph (h)).
 - 4** Procedures to train new employees at the time of their initial assignment and to train employees when a new hazard is introduced into the workplace.
 - 5** Procedures to train employees of new hazards they may be exposed to when working on or near another employer's worksite (i.e., hazards introduced by other employees).
 - 6** Guidelines on training programs prepared by the Office of Training and Education entitled "Voluntary Training Guidelines" (Vol. 49 FR 30290, July 27, 1984) can be used to provide general information on what constitutes a good training program.

(d) Additional Topics To Be Reviewed.

- 1 Does a list of the hazardous chemicals exist and if so, is it compiled for each work area or for the entire worksite and kept in a central location?**
- 2 Are methods the employer will use to inform employees of the hazards of non-routine tasks outlined?**
- 3 Are employees informed of the hazards associated with chemicals contained in unlabeled pipes in their work areas?**
- 4 Does the plan include the methods the employer will use at multi- employer worksites to inform other employers of any precautionary measures that need to be taken to protect their employees?**
- 5 For multi-employer workplaces, are the methods the employer will use to inform the other employer(s) of the labeling system used described?**
- 6 Is the written program made available to employees and their designated representatives?**

b. Citation Guidelines. Generally, all violations of paragraph (e) shall be grouped with the violated element(s) listed in the subparagraphs of (e) and/or violations of paragraphs (f), (g) and (h) as appropriate, since (e)(1) is the only provision under paragraph (e) which addresses the development, implementation and maintenance of the written hazard communication program. Specific citation guidance is given below:

- (1) Paragraph (e)(1) shall be cited by itself when no program exists (i.e., when no program has been developed). Paragraph (e)(1) shall also be cited in instances where the written program is not maintained at a fixed worksite location. For certain mobile or multi-employer worksite situations, see guidance given in Appendix A, Section (e)(2), discussion beginning on page A-15.**
- (2) When an employer's written program exists but is found to be deficient (i.e., has not been implemented as witnessed by the inadequacies of the other requirements of the standard), paragraph (e)(1) shall be cited and grouped as separate violations with separate penalties with the elements of the standard required in subparagraphs of (e) and/or paragraphs of (f), (g), and/or (h). An example follows: An employer has developed a written program but it has not been implemented in the workplace-no training has been provided and MSDS's are not available to employees. In this situation two separate violation items shall be recommended for citation: (e)(1) grouped with (h) as a separate violation and penalty and (e)(1) grouped with (g)(8) as a second violation with separate appropriate penalty.**
- (3) Paragraph (e)(1) shall also be cited when an employer has not developed a written program and yet is exposing his employees to chemical hazards which are known to be present in the workplace and which are created by another employer.**
- (4) OSHA's compliance and enforcement policies for multi-employer worksites are set forth in the FOM, Chapter V, Sections F.1 and 2., which state that with regard to working conditions where employees of more than one employer are exposed to a hazard, the employers "with the responsibility for creating and/or correcting the hazard" shall be cited for violations of OSHA standards that occur on a multi-employer worksite. In these situations, normally citations for violations shall be issued to each of the exposing employers as well as to the employer responsible for correcting or ensuring the correction of the condition (which is usually the controlling employer or general contractor).**

6. Labels and Other Forms of Warning, Paragraph (f).

Labels or other markings on each container of chemicals must include the identity and appropriate hazard warnings. Labels on shipped containers must also include the name and address of the chemical manufacturer, importer, or other responsible party.

a. Inspection Guidelines. CSHOs shall determine that containers are labeled, that the labels are legible, and that the labels are prominently displayed.

- (1) Labels must be in English. Labels and MSDS may also be printed in additional languages.
- (2) The accuracy of the label information is to be assessed for a representative number of chemicals. The CSHO shall determine whether the label identity can be cross-referenced with the MSDS and the list of hazardous chemicals.
- (3) CSHOs must consider alternate labeling provisions (for example tags or markings) for containers which are too small to accommodate a legible label.
- (4) CSHOs shall evaluate the effectiveness of in-plant labeling systems through a review of the employer's training program and MSDS procedures. Such evaluation shall include interviews with employees to determine their familiarity with the hazards associated with chemicals in their workplace. An effective program is one that ensures that employees are aware of the hazardous effects (including target organ effects) of the chemicals to which they are potentially exposed.
- (5) Guidelines for referrals regarding inadequate labels are dealt with in this instruction at K.7.a.(7) and (8).

b. Citation Guidelines. Chemical manufacturers shall be cited for appropriate paragraphs (f)(1)(i) through (f)(1)(iii) of the standard when deficiencies are found relating to products that are shipped downstream. Paragraphs (f)(5)(i) and (f)(5)(ii) of the standard shall be cited when a hazardous chemical is created and/or used only in-house. (See also K.7.b.)

7. Material Safety Data Sheets, Paragraph (g).

The standard requires chemical manufacturers and importers to develop or obtain a material safety data sheet for each hazardous chemical they produce or import.

a. Inspection Guidelines. Distributors and employers may, at their option, develop MSDS's. CSHOs should inform them as well as chemical manufacturers and importers that the Material Safety Data Sheet, OSHA Form 174, is available for this purpose. The CSHO shall evaluate the compliance status of this provision by examining a sample of MSDS's to determine that the MSDS's has been obtained or developed and prepared in accordance with the requirements of paragraphs (g)(2)-(5) of the standard and to ensure that the information regarding the health and physical hazards is technically accurate. If MSDS's are not updated when new information becomes available, the hazard determination performed by the chemical manufacturer or importer is deficient.

- (1) The number of MSDS's and the particular MSDS selected for review will depend upon several factors, such as:
 - (a) The number of chemicals in the workplace.
 - (b) The severity of the hazards involved.
 - (c) The completeness of the MSDS in general.
 - (d) The volume of the chemicals used.

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- (2) The CSHO is to complete this review by following the procedures outlined in Hazard Evaluation Procedures, Appendix C of this OSHA instruction. The CSHO shall also use available literature and computer references in the Area Office as well as Appendix D, Guide to Reviewing MSDS Completeness, in reviewing MSDS.

NOTE: Published MSDS reference files are copyrighted, and, therefore, must NOT be copied for distribution to the public.

- (3) In addition, each Area Office has access to physical and health hazard data on the OSHA Computerized Information System (OCIS). If the hazard information is not available or cannot be obtained in the Area Office, then the Regional Office shall be consulted. If the Regional Office does not have information on the chemical in question, then the Regional Office shall contact the Technical Data Center.
- (4) Published MSDS's, if used, are a screening resource for the CSHO. The information on these MSDS's has not been evaluated by OSHA to determine if it is accurate or required in every situation. They should be used to help identify which areas require further research or where information is lacking on the MSDS being reviewed.
- (5) The following items shall be considered when reviewing the MSDS's:
- (a) Do employers have an MSDS for each hazardous chemical used?
 - (b) Does each MSDS contain information which adequately addresses at least the 12 elements required by the standard at (g)(2)(i)-(xii)?
 - (c) Are all sections of the MSDS accurately completed?
- (6) The CSHO shall ensure compliance with the MSDS transmission provisions of the standard by reviewing the chemical manufacturer's, importer's, or distributor's program for transmitting the MSDS's and updated MSDS's to downstream customers.
- (7) Referral Procedures Where an Employer's MSDS/ Label is Inadequate or Deficient. Where employers are relying on the MSDS/label supplied by chemical manufacturers or importers, the following procedures apply:
- (a) Employers are not to be held responsible for inaccurate information on the MSDS/label which they did not prepare and they have accepted in good faith from the chemical manufacturer, importer or distributor.
 - (b) The CSHO shall take copies of the MSDS/label with inaccurate information back to the Area Office for referral to the appropriate State Plan State or Area Office. Before making the referral, the Area Director shall write to the supplier requesting action in 30 days or less using the sample letter in Appendix B of this instruction. As an option, the Area Office may call the supplier, but if a prompt response is not received, a letter shall be sent. This may be done even if the supplier is outside the jurisdictional area of the Area Office.
 - (c) If the manufacturer or supplier fails to respond within a reasonable time, a referral (OSHA-90 Form), with complete background information attached, shall be sent to the State Plan State or Area Office within whose jurisdiction the supplier or manufacturer does business.
 - (d) The Area Office within whose jurisdiction the upstream supplier or manufacturer is located shall then ensure that an abbreviated (HCS) inspection is conducted or that a letter is written in accordance with the referral procedures in the FOM, Chapter IX, B.3.b.
 - (e) The findings and the MSDS(s) and/or labels obtained shall be sent to the referring office.

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- (f) The Regional Administrator shall coordinate with State designees to ensure that referrals from State plans are handled in similar manner. OSHA will not act on a referral from a State if it is for the purpose of obtaining an MSDS for inclusion in a State-maintained MSDS file and/or repository.
- (8) Referral Procedures for Distributors. When a distributor has not received an MSDS from the supplier, the CSHO shall recommend that the distributor write to the chemical manufacturer, and, if applicable, other distributor who supplied the chemical. If at the end of the abatement period, the distributor has failed to receive the MSDS, the Area Director shall follow the referral procedures outlined in K.7.a.(7)(b) through (f) of this instruction.

b. Citation Guidelines. Citations shall be issued to the employer only when MSDS/labels are missing.

- (1) If MSDS/labels are missing or have not been received for a hazardous chemical(s), the employer shall be cited unless a good faith effort has been made to obtain the information.
 - (a) A copy of a letter or documentation of a phone call to the supplier are examples of methods for establishing a good faith effort. An employer contacting OSHA for assistance in obtaining the missing information is also an excellent example of a good faith effort.
 - (b) Area Offices should expect to receive requests from employers to assist them in obtaining MSDS's or labels in situations when an inspection has not been conducted. If the Area Director determines that the employer has tried to obtain the information, and has not been able to do so, a letter and/or telephone call from the Area Office to the supplier or manufacturer is the appropriate action in this situation as well.
 - (c) If a citation will be issued to the employer for lack of a MSDS/label, where the employer has failed to document that a good faith effort has been made to obtain them, CSHOs shall recommend that the employer write to both the direct supplier and to the manufacturer for the MSDS or label.
 - 1 CSHOs shall inform employers that it is their responsibility to contact OSHA before the expiration of the abatement date to request a petition to modify abatement or else be subject to a failure to abate if abatement is not accomplished. If at the end of the abatement period the employer still has failed to receive the requested information, the Area Director shall call and/or send a certified letter to the manufacturer, importer, or distributor to obtain the required information. (See sample letter in Appendix B.)
 - 2 If the distributor failed to transmit the MSDS to the employer, the distributor shall be cited for violation of paragraph (g)(7) of the standard with a short abatement date unless the distributor did not receive the MSDS from the chemical manufacturer, importer, or distributor. In such cases the abatement period will generally be 30 days.
- (2) Any party who changes the label/MSDS (for example, changing the name or identity of the chemical) then becomes the responsible party for the change regardless of whether they are a chemical manufacturer, distributor or user employer. In cases where a distributor adds its name to the MSDS and those MSDS's are inaccurate or incomplete, citations shall not be issued to the distributor. Distributors, however, who substitute their names on the MSDS or change it in any way become the "responsible party" and must be able to supply the required additional information on the hazardous chemical and appropriate emergency procedures, if necessary. Failure to be able to provide the additional information will result in a violation of (g)(2)(xii) of the standard if noted upon inspection.

- (3) On multi-employer worksites, citations for violations of (g)(8) of the standard shall be issued to the employer responsible for providing or making the MSDS(s) available, as discussed below. A citation for violation of (e)(2) of the standard shall concurrently be issued in any of the instances listed where there is evidence that an employer has failed to effectively implement and enforce its hazard communication program.
 - (a) If an employer on a multi-employer worksite brings hazardous chemicals onto that site and fails to inform other employers about the presence of those chemicals and/or the availability of the MSDS(s), that employer shall be cited for violation of (g)(8) grouped with (e)(2).
 - (b) Central Location. If the employer's method to provide other employers with MSDS(s) involves the use of a central location, and the MSDS(s) is not available at that location, then the employer shall be cited for violation of (g)(8).
 - (c) Controlling Employer. If the employer's method involves using a general contractor or other employer as an intermediary for storage of the MSDS(s), and that intermediary employer has agreed to hold and provide ready access to the MSDS(s), then that other employer becomes the controlling employer, who is then responsible for ensuring the availability of the MSDS(s).
 - 1 The controlling employer (e.g., general contractor) shall therefore normally be cited for violation of (g)(8) if the MSDS(s) is not available; however:
 - 2 If the MSDS(s) is not available because the subcontractor failed to provide it, then the subcontractor shall instead be cited for violation of (g)(8).
 - (4) The FOM discusses penalty factors for shipped containers at Chapter IV, Section C.8.
8. Employee Information and Training, Paragraph (h).
- a. Inspection Guidelines. The training requirements of the HCS will generally complement rather than satisfy the existing training requirements contained within other OSHA standards (i.e., expanded health standards, construction requirements, etc.).
 - (1) CSHOs shall continue to ensure that employers' obligations under specific training provisions of other standards are met. There will also be instances where there is an overlap in the training requirements of 29 CFR 1926.21, Safety Training and Education, and the HCS. In those instances where the training deficiency is covered by both standards (1926.21 and 1926.59) the CSHO shall issue a citation for 29 CFR 1926.59, which is the more specific standard.
 - (2) Training programs must be evaluated through program review and discussion with management and employees. All elements of training and information stated in the standard must be addressed. The following additional questions provide a general outline of topics to be reviewed:
 - (a) Has a training and information program been established for employees exposed to hazardous chemicals?
 - (b) Is this training provided at the time of initial assignment and whenever a new hazard is introduced into work areas?
 - (c) Have all new employees at this location received training equivalent to the required initial assignment training?

(d) Was training subject matter organized by:

1 Specific chemical?

2 Categories of hazard?

- (3) The Voluntary Training Guidelines (Vol. 49 FR 30290, July 27, 1984) may also be helpful in assessing the effectiveness of the employer's training program.
 - (4) Employee interviews will provide general information to the CSHO regarding the training program. Obviously, it cannot be expected that employees will totally recall all information and be able to repeat it. Employees must be aware of what hazards they are exposed to, know how to obtain and use information on labels and MSDS, and know and follow appropriate work practices. However, if the CSHO detects a trend in employee responses that indicates training is not being conducted, or is conducted in a cursory fashion that does not meet the intent of the standard, a closer review of the written program and its implementation may be necessary. The purpose of the standard is to reduce chemical source illnesses and injuries through the transmission hazard information. This can occur only if employees receive the information in usable form through appropriate training.
 - (5) Paragraph (h) requires that information and training be provided to employees regarding the hazards of all chemicals in their work areas including by-products and hazardous chemicals introduced by another employer, provided that they are known to be present in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency.
 - (6) Some employers will voluntarily keep records of training sessions. These could be helpful to CSHOs in assessing compliance with the standard.
 - (7) Employers are required to ensure that training is provided. Employees may be trained by unions, in trade schools, etc. The employer is responsible for ensuring they have been properly trained. If outside training sessions are used to satisfy this requirement, and the CSHO determines that the employee has not been adequately trained, the employer is subject to citation.
- b. Citation Guidelines. Citations shall be issued under paragraph (h) of the standard when training is found to be inadequate through program review, discussion with management and employee interviews. The employer is always ultimately responsible for ensuring that employees are adequately trained, regardless of the method relied upon to comply with the training requirements.
9. Trade Secrets, Paragraph (i). Only specific chemical identities may be withheld under the HCS trade secret provisions. Even when a chemical's identity is rightfully withheld as a trade secret, its release may be required by the trade secret access provisions in paragraph (i).
- a. Inspection Guidelines. CSHOs evaluating the MSDS and hazard determination programs may request disclosure of trade secret identities under paragraph (i)(12) of the HCS. OSHA shall take all steps feasible to protect trade secret identities, including secure filing and return of information when its use is complete.
 - b. Citation Guidelines. Where OSHA believes that the chemical manufacturer, importer or employer will not be able to support the trade secret claim, the withholding of a specific chemical identity shall be cited as a violation of paragraph (g)(2). Where OSHA does not question the claim that a specific chemical identity is a trade secret, but the employer has failed to comply with paragraph (i)(1)(i), (ii), (iii) or (iv), or with (i)(2) or (3), such failure shall be grouped with 1910.1200 (g)(2), stating the deficiency in the AVD. For example, the employer claims a trade secret exists but failed to indicate on the MSDS that the specific chemical was being withheld for that reason, as required under paragraph (i)(1)(iii).

OSHA Instruction CPL 2-2.38C (cont.)

10. **Response to Medical Emergencies.** The HCS permits a treating physician or nurse to designate the existence of a medical emergency requiring the immediate disclosure of trade secrets.
 - a. **Inspection Guidelines.** Referrals received from treating physicians and nurses relating to a medical emergency shall normally be classified as imminent danger or serious in accordance with the FOM, Chapter IX. Due to the potential risk to life and/or health, the Area Director shall ensure that these referrals are processed as soon as received. The Area Director or his/her designee shall contact the manufacturer of the chemical by telephone. Telephone numbers are required on the MSDS. The manufacturer shall be informed of the standard's requirements and requested to immediately provide the needed information directly to the treating physician or nurse.
 - b. **Citation Guidelines.** Failure to disclose the information shall result in the issuance of a willful citation. The chemical manufacturer will frequently be located under a different Area Office jurisdiction. Apparent violations shall be referred to the office of jurisdiction for investigation and the issuance of citations. Concurrently, the Area Director of jurisdiction shall coordinate obtaining an administrative subpoena ordering the immediate disclosure of the needed information. Federal Court Orders shall be sought immediately if the administrative subpoena is not effective in obtaining the information.
11. **Response to Non-emergency Referrals.** When health professionals providing medical or other occupational health services to exposed employees, or when employees themselves and/or their designated representatives are denied access to trade secret information, the matter may be referred to OSHA for enforcement proceedings.
 - a. As stipulated in the standard, OSHA should receive from the referring health professional, employee, or designated representative a copy of the written request for the trade secret information, as well as a copy of the written denial provided by the holder of the trade secret. These two written documents shall be reviewed by the Area Director to determine the validity of the request and the trade secret claim. The Regional Solicitor will provide assistance in this regard.
 - b. If the Area Director does not believe that there is enough information upon which to base a decision, he/she may contact either the trade secret requester or the trade secret holder for further information. Such requests shall be documented in the case file.
- L. **Classification and Grouping of Violations.** The procedures in the FOM, Chapters IV, C.8., and V, C., shall be followed except as modified by this instruction; however, if deviations appear appropriate, they shall be coordinated with the Directorate of Compliance Programs, Office of Health Compliance Assistance, through the Regional Office. The following guidelines normally shall apply:
 1. Citations for violations of paragraphs (e), (f), (g) and (h) of the standard shall be issued as separate items when there is a complete lack of a hazard communication program. Otherwise the guidance provided in the FOM or specific guidance in this instruction shall be followed.
 2. Serious violations shall be issued whenever a deficiency in the program can contribute to a potential exposure capable of causing death or serious physical harm. In addition, the CSHO must document that the employer knew or should have known of the violation.
 - a. Serious violations should be considered only when there is documentation which demonstrates that the employer or downstream employer is using the chemical in a manner which could result in actual or potential exposure capable of producing death or serious physical harm. The lack of a label or the lack of a training program alone for a specific chemical or type of hazard could result in a situation where exposure to that hazardous chemical without these safeguards of the HCS would create a serious hazard.
 - b. Documentation of a HCS violation for a chemical manufacturer or importer could be in the form of a referral generated as a result of OSHA's observation of conditions of use resulting in employee exposure to the hazardous chemical at a downstream user's workplace.

OSHA Instruction CPL 2-2.38C (cont.)

3. **Willful violations should be considered in accordance with the guidelines of the FOM; i.e., the employer committed an intentional and knowing violation of the Act.**
 - a. The employer was aware that a hazardous condition existed and did not make a reasonable effort to eliminate the condition, and
 - b. The employer was aware that the condition violated a standard and was aware of the standard.
 - c. In addition, willful citations shall be issued when an employer refuses to provide specific chemical identity information in a medical emergency (29 CFR 1910.1200(i)(2)).
- M. **Interface With Other Standards.** In some cases, an employer's duties under other OSHA standards dovetail with requirements of the HCS, resulting in simplified compliance.
 1. **Medical Records Access.** The Access to Employee Exposure and Medical Records standard (29 CFR 1910.20) and the HCS overlap with regard to MSDS's. MSDS's are specifically identified as exposure records under 29 CFR 1910.20(c)(5)(iii). Each the MSDS received by an employer must be maintained for at least 30 years as required at 1910.20(d)(1)(ii). The access standard does offer an alternative to keeping the MSDS's at 1910.20(d)(1)(ii)(B), which reads as follows: Material safety data sheets and paragraph (c)(5)(iv) records concerning the identity of a substance or agent need not be retained for any specified period as long as some record of the identity (chemical name if known) of the substance or agent, where it was used, and when it was used is retained for at least thirty (30) years. Therefore, an employer may discard the original data sheet and retain only the new data sheet if a record of the original formulation is maintained.
 - a. Paragraph (e)(1)(i) of the HCS requires that employers maintain a list of hazardous chemicals as part of the written hazard communication.
 - b. Employers might simplify their responsibilities as they relate to the overlap between these two standards by incorporating the requirements under 1910.20(d)(1)(ii)(B) with those for the HCS paragraph (e)(1)(i). That is, the list of hazardous chemicals could include information on where chemicals were used and when they were used. These lists would then have to be kept for at least 30 years.
 - c. Section (e)(4) of the HCS requires employers to make the written hazard communication program available upon request to employees, their representatives, OSHA or NIOSH, in accordance with the requirements at 1910.20(e). The standard, 1910.20(e), requires the employer to provide a copy of the requested record (in this case, a copy of the written hazard communication program) "in a reasonable time...but in no event later than fifteen (15) days...." Some employers have incorrectly interpreted this to mean that they have 15 days to produce a copy of the written program and make it available at the worksite. This is an incorrect interpretation; the intent behind the (e)(4) requirements of the HCS is to allow the employer up to 15 days to provide a written (photo or other) copy of the program to employees who request it. This does not mean the employer has 15 days in which to get the program to the worksite for employees to access. The written program must be available to employees at the worksite at all times, as per 1910.1200 (e)(1) (See Appendix A, discussion at (e)(2) page A-15.)
 2. **Air Contaminants.** OSHA enforcement of the new Air Contaminants rule was effective September 1, 1989. Chemical manufacturers, importers, distributors or employers who prepare MSDS were responsible for incorporating the changes precipitated by the new standards within three (3) months. Therefore, all MSDS and labels must already have been modified if affected by this rulemaking and such modifications of both PEL (including STEL and skin notations) and health hazard data must now appear on the revised MSDS and labels, as appropriate.

OSHA Instruction CPL 2-2.38C (cont.)

- 3. 29 CFR 1910.1450, Occupational Exposure to Hazardous Chemicals in Laboratories.** Quality control laboratories are usually adjuncts of production operations and are not covered under the Laboratory Standard, but rather would be covered under the HCS. For other laboratories covered under the Laboratory Standard, the requirements of the HCS are superseded (the more specific standard, 1910.1450, takes precedence). Both the training and information and the hazard identification requirements of the Laboratory Standard are more extensive than the HCS laboratory requirements.
 - 4. Other Health Standards.** Paragraph (f)(4) of the HCS references labeling requirements of substance-specific standards. Employers must comply with these substance specific standards. For example, the ethylene oxide (ETO) standard provides a different labeling requirement than the HCS. Labels do not have to be affixed to containers of ETO unless the product is capable of producing employee exposure at or above the action level of 0.5 ppm as an 8-hour time weighted average (29 CFR 1910.1047 (j)(1)(ii)).
- N. Evaluation.** In keeping with agency policy, an evaluation of the effectiveness of this instruction shall be conducted annually. An evaluation report from each Region shall be written and submitted to the Directorate of Compliance Programs within 30 days of the close of the fiscal year. Elements to be considered in the evaluation are the following:
- 1. Are enforcement and citation policies clear?**
 - 2. Are particular problems not addressed or inadequately addressed in this instruction?**
 - 3. Are parts of this instruction not useful?**

APPENDIX A

Clarifications and Interpretations of the Hazard Communication Standard (HCS).

This appendix includes clarifications and interpretations which respond to the most frequently asked questions and points of common misunderstanding. Where possible, clarifications are keyed to the most applicable paragraph of the HCS. In many cases a clarification applies to an entire paragraph of the standard. These are included after each section.

Purpose.

(a)(2): OSHA's position is that State standards can be enforced only under the auspices of an OSHA-approved State plan. States without State plans are preempted from addressing the issue of Hazard Communication. Community right-to-know standards are outside the jurisdiction of OSHA and are not affected by this position. Inquiries regarding preemption that require in depth knowledge of this subject shall be referred through the Directorate of Compliance Programs to the Office of State programs for response.

The agency's position regarding State standards has been described in OSHA Instruction STP 2-1.117. This should be consulted when answering questions regarding such State standards.

Scope and Application.

(b)(1): The HCS has a unique requirement for downstream disclosure of information from chemical manufacturers and importers to employers receiving their products. This downstream flow of information is essential to the complete implementation of the standard, but does create enforcement situations that have not been encountered with previous standards. The CSHO's familiarity with the procedures established in this instruction to address such situations is essential to implementation of the HCS.

(b)(2): The phrase "known to be present" is essential to understanding the scope of the standard. If a hazardous chemical is known to be present by the chemical manufacturer or the employer, it is covered by the standard. This includes chemicals to which employees may be exposed during normal operations or in a foreseeable emergency. This means that even though an employer did not create the hazard, such as silica exposure during concrete demolition, or the hazards of exposure to the chemicals brought onto a multi-employer worksite by other employer(s), the standard applies and the employer whose employees are exposed to chemicals known to be present should include hazard communication information about these exposure situations in his workplace hazard communication program.

By-products are also covered by the HCS. Employers' hazard determination procedures must anticipate the downstream use of their products and account for any hazardous by-products which may be formed. For example, a manufacturer of gasoline must inform downstream users of the hazards of carbon monoxide, since carbon monoxide is a hazardous chemical and is a "known to be present" by-product resulting from the use of gasoline. Similarly, manufacturers of diesel fuel must inform downstream users of the potential human carcinogenicity of diesel exhaust on the MSDS's for diesel fuel. (See NIOSH Current Intelligence Bulletin No. 50, August 1988.)

The terminology "exposed under normal conditions of use or in a foreseeable emergency" excludes products or chemicals that do not meet this condition. For example, a chemical that is inextricably bound in a mixture and presents no potential for exposure would not be covered. This paragraph must be read in conjunction with the definition of exposure which specifically includes potential (either accidental or possible) exposure. (See the FOM for guidance on citing potential exposure.) Further, employees such as office workers who encounter chemicals only in non-routine, isolated instances are not covered. However, an office worker who works in a graphic arts department and routinely uses paints, adhesives, etc., would be covered by the HCS. OSHA has never considered either radioactivity or biological hazards to be covered by the HCS. If, however, another type of hazard is presented along with the material (e.g., a container with a biological sample packed in a hazardous solvent), then the container would be subject to the requirements of the HCS for the other hazardous chemical.

OSHA Instruction CPL 2-2.38C (cont.)

(b)(3): The coverage of laboratories is limited under the HCS. Although the standard does not specifically define the term "laboratory", it is intended to mean a workplace where relatively small quantities of hazardous chemicals are used on a non-production basis; i.e., bench-scale operations. The definition would include research facilities as well as quality control laboratory operations located within manufacturing facilities. Establishments, however, which produce samples or chemical standards to be sent out to other employers covered by the HCS would not fall under the standard's term for a laboratory. Those employers who ship hazardous chemicals would be considered either chemical manufacturers or distributors and must label in accordance with paragraph (f)(1) and provide MSDS per paragraphs (g)(6) and (g)(7).

29 CFR 1910.1450, Exposure to Hazardous Chemicals in Laboratories, addresses hazard communication requirements in laboratories. It is consistent with the HCS, but also has some additional requirements that must be applied in laboratories covered by that rule. The operating definition of a laboratory is not the same for both standards. 29 CFR 1910.1450 covers only laboratories meeting criteria of "laboratory use" and "laboratory scale" and excludes procedures that are part of a production process (55 FR 3328). The preamble to 29 CFR 1910.1450 states "... most quality control laboratories are not expected to meet the qualification for coverage under the Laboratory Standard. Quality control laboratories are usually adjuncts of production operations..." (55 FR 3312). Quality control laboratories would therefore generally be covered by the HCS.

Under the HCS, laboratories do not have to have a written hazard communication program. Therefore, when the required training is performed, the part that deals with the program availability will simply point out that such written programs are not required for laboratories.

Some manufacturers of chemical specialty products have interpreted the laboratory provisions as exempting them from coverage. These operations are considered to be manufacturing processes, and are not exempted. Furthermore, a pilot plant operation is also considered to be a manufacturing operation, not a research laboratory operation. In addition, establishments such as dental, photo-finishing, and optical laboratories clearly are not considered laboratory operations for the purposes of this standard since they are engaged in the production of a finished product.

Quality control samples taken in a plant must be labeled, tagged, or marked unless the person taking the sample is also going to be performing the analysis, and thus the sample would come under the portable container exemption. A hand-written label may be utilized as long as required label information is present. The rack in which samples are placed could be labeled in lieu of labeling individual samples if the contents and hazards are similar.

(b)(4): Since all containers are subject to leakage and breakage, employees who work in operations where they handle only sealed containers (such as warehousing) are potentially exposed to hazardous chemicals and therefore need access to information as well as training. The training required for employees who handle sealed containers is dependent upon the type of chemicals involved, the potential size of any spills or leaks, the type of work performed and what actions employees are expected to take when a spill or leak occurs.

Employers are required to obtain a MSDS's for chemicals in sealed containers if an employee requests one. The employer's attempt must begin promptly (within a day) in order to be consistent with the requirement that available sheets be accessible during each shift in the work area.

(b)(5): These exemptions apply to labeling requirements of the HCS only and are not intended to provide a complete exemption from the standard.

(b)(6): This paragraph totally exempts certain categories of substances from coverage under the HCS. Hazardous waste is completely exempted from the standard when subject to regulation by the Environmental Protection Agency (EPA), under the Resource Conservation and Recovery Act (RCRA). If the waste is not regulated under RCRA, then the requirements of the standard apply. Once the material is designated as hazardous waste as defined under RCRA, it is totally exempted. Other chemicals which are used by employees at a hazardous waste site that are not hazardous waste are covered under the HCS. (An example would be an acid brought on site by the employer to neutralize a waste product.)

OSHA Instruction CPL 2-2.38C (cont.)

Under the current rule, whenever a consumer product is used in a manner that is not comparable to typical consumer use, it is covered by the HCS. The standard requires the employer to ascertain whether the workplace use is more frequent, or of longer duration than would be expected in normal consumer use. Exposures in these situations would be greater, and thus the need increases for additional information for employee protection. The use of cans of spray paint during production run rather than for occasional, short, one-time applications that typify consumer use is an example of hazardous chemical use which would not qualify as consumer product use.

The key to the definition of "article," and thus the exemption, is the term "under normal conditions of use." For example, an item may meet the definition of "article," but produces a hazardous by-product if cut or burned. If the cutting or burning or otherwise processing the article in such a way as to result in employee exposure to a hazardous chemical is not considered part of its normal conditions of use, the item would be an "article" under the standard, and thus be exempted. As mentioned in the preamble to the August 24, 1987 rule, exposures to releases of "very small quantities"; e.g., a trace amount, are not considered to be covered by the HCS. Thus, absent evidence that releases of such "very small quantities" could cause health effects in employees, the article exception to the rule's requirements would apply. The following items are examples of articles:

- Stainless steel table
- Vinyl upholstery
- Tires
- Adhesive tape

The following items are examples of products which would NOT be considered "articles" under the standard, and would thus not be exempted from the requirements:

Metal ingots that will be melted under normal conditions of use.

Bricks for use in construction operations, since, under normal condition of use, bricks are cut or sawed, thereby resulting in exposure to crystalline silica.

Switches with mercury in them that are installed in a maintenance process when it is known that a certain percent break under normal conditions of use.

Lead acid batteries which have the potential to leak, spill or break during normal conditions of use, including foreseeable emergencies. In addition, lead acid batteries have the potential to emit hydrogen which may result in a fire or explosion upon ignition.

It should be noted that the only information that has to be reported in these situations is that which concerns the hazard of the released chemical. The hazardous chemicals which are still bound in the article would continue to be exempted under the "article" exemption.

The wood and wood products exemption was never intended by OSHA to exclude wood dust from coverage. This fact was clarified in the preamble to the final rule published August 24, 1987. (See Federal Register, Vol. 52, No. 163, page 31863.) The permissible exposure limits for wood dust recently adopted under OSHA's PEL Project must be included on the MSDS's, which will generally be developed by the sawmill. Further, any chemical additives present in the wood which represent a health hazard must also be included on the MSDS's and/or label as appropriate.

Definitions.

(c): The definitions of the HCS must be heavily relied upon to properly interpret and apply the standard. In many cases terms within a definition are themselves defined within the same section

Article. The definition has been interpreted to permit the release of very small quantities of a hazardous chemical and still qualify as an article provided that a physical or health risk is not posed to the employees. Examples of very small quantities would be the release of a few molecules or trace amounts of a hazardous chemical (52 FR 31865).

Chemical Manufacturer. Based on this definition and that of its related terms, an employer that manufactures, processes, formulates, or repackages a hazardous chemical is considered a "chemical manufacturer." This definition includes someone who blends or mixes chemicals; such persons may comply with the standard by merely transmitting the relevant label/MSDS's for the ingredients, which they received in good faith from their suppliers, to their downstream customers. Oil and gas producers are chemical manufacturers for the purposes of the HCS because they process hazardous chemicals for use or distribution.

For substances which are grown, cultivated, or harvested and which are not processed by the grower before being sold, the first employer meeting the definition of "chemical manufacturer" will be responsible for performing the hazard determination, developing or obtaining the MSDS's, and labeling containers of the hazardous chemicals. For example, saw mills and grain elevators will be considered to be the "chemical manufacturer" since they are the first employers who meet the definition. A saw mill processes timber into lumber (meets definition of "produce") thereby creating wood dust in the process, which is a hazardous chemical under the HCS. Grain elevators will also meet the definition of a "chemical manufacturer" since they treat, dry, and move grain, creating grain dust (which is also a hazardous chemical under the standard).

Commercial Account. A commercial account is an arrangement whereby a retail distributor sells hazardous chemicals to an employer, generally in large quantities over time and at costs that are below the regular retail price.

Container. This definition includes tank trucks and rail cars. A room or an open area is not to be considered a container and, therefore, a hazardous chemical such as wood dust on the floor of a workplace, or a pile of sand at a construction site, would not have to be labeled. Since only "containers" need to be labeled under the HCS, if there is no container, there is no requirement to label.

Pipes or piping systems, engines, fuel tanks, or other operating systems in a vehicle are not considered to be containers. Thus, LP cylinders that serve as the source of fuel used to operate lift trucks, for example, would not have to be labeled once the fuel tank is installed, although the spare LP cylinder(s) in storage must be labeled since they are containers. Although containers of fuel such as gasoline and LP clearly are within the scope of the HCS, no requirement exists to label the lift truck. The producer still has an obligation to assess the hazards associated with the fuels, including their by-products.

The standard requires all containers of hazardous chemicals leaving the workplace to be labeled with the required information. Even very small containers must be tagged or marked in a fashion that fulfills the intent of the standard.

Distributor. A distributor who blends, mixes or otherwise changes the chemical composition of a chemical is to be considered a chemical manufacturer under the HCS. As a result, employees in those operations are to be considered just like other employees who use hazardous chemicals. A distributor, therefore, performing a chemical manufacturing operation (i.e., blending, mixing, etc.) becomes a chemical manufacturer and will probably need to give additional training to those employees performing the manufacturing operation since the distributor will not be able to satisfy the sealed container provision in paragraph (b)(4) and invoke its limited requirements.

OSHA Instruction CPL 2-2.38C (definitions cont.)

Employee. Employees, such as office workers or bank tellers who encounter hazardous chemicals only in non-routine, isolated instances are not covered. For example, a worker who occasionally changes the toner in a copying machine would not be covered by the standard. However, an employee who operates a copying machine on a full-time basis would be covered by the provisions of the HCS for any hazardous chemicals used.

Exposure. It is important to note, especially for purposes of chemical manufacturers' hazard determinations, that "exposure" includes any route of entry (inhalation, ingestion, skin contact or absorption) and includes potential (accidental or possible) exposure including exposure that could result in the event of a foreseeable emergency.

Hazard Determination.

(d)(1): Although the chemical manufacturer and the importer have the primary duty for hazard evaluation, it is expected that some employers will choose to do their own evaluations. Whoever does the evaluation is responsible for the accuracy of the information. The evaluation must assess the hazards associated with the chemicals including those hazards related to any anticipated or known use which may result in worker exposure.

Known intermediates and by-products are covered by the HCS. Decomposition products which are produced during the normal use of the product or in foreseeable emergencies (e.g., plastics which are injection molded, diesel fuel emissions) are covered if the hazardous chemicals are known to be present. "Foreseeable emergency" does not include employee exposures in the event of an accidental fire, but does include equipment failure, rupture of containers, or failure of control equipment which could result in an uncontrolled release of a hazardous chemical.

An employer may rely upon the hazard determination performed by the chemical manufacturer. Normally, the chemical manufacturer possesses knowledge of hazardous intermediates, by-products and decomposition products that can be emitted from his chemical product. However, if the employer obtains information regarding the hazards from a source other than the manufacturer, the employer is responsible for including such information in his hazard communication program.

(d)(2): The preparer of the MSDS's/labels is required to consider all available scientific evidence concerning the hazard(s) of a chemical in addition to consulting the floor reference sources listed in paragraph (d)(3) of the standard. (See Appendix C of this instruction for further guidance on evaluating health effects.) No testing of chemicals to determine hazards is ever required; the evaluation is to be based on information currently available in the literature.

Where at least one positive scientific study exists which is statistically significant and demonstrates adverse health effects, the MSDS's must include the adverse health effects found. This does not necessarily mean that the results of all such studies would also appear on the label.

The standard's definition of "chemical" is much broader than that which is commonly used. Thus, steel coils which are cut and processed, castings which are subsequently ground or welded upon, carbide blades which are sharpened, and portland cement, which is both a skin and eye irritant, are all examples of chemicals which would normally be covered since exposure to hazardous chemicals would occur in the workplace.

Any substance which is inextricably bound in a product is not covered under the HCS. For example, a hazard determination for a product containing crystalline silica may reveal that it is bound in a rubber elastomer and under normal conditions of use or during foreseeable emergencies cannot become airborne and therefore cannot present an inhalation hazard. In such a situation, the crystalline silica need not be indicated as a hazardous ingredient since it cannot result in employee exposure.

(d)(3): Any compound of a substance regulated in part 1910, Subpart Z, including those listed in the Z Tables or for which there is a TLV in the latest edition of the ACGIH, Threshold Limit Values listing, is considered to be part of the floor of hazardous chemicals covered by the standard.

OSHA Instruction CPL 2-2.38C (definitions cont.)

Nuisance Dust or Particulates. The term "nuisance dust" is no longer used in 1910.1000. A number of particulates now have specific PEL's and are covered by the HCS. The particulates not otherwise regulated are exempt unless evidence exists that they present a health or physical hazard other than physical irritant effects. For these chemicals, the "particulates not otherwise regulated" PEL's must be included on the MSDS's.

(d)(4): On December 20, 1985, OSHA published an interpretive notice in the Federal Register regarding the carcinogenicity of lubricating oils (VOL. 50 FR 51852). The notice was published in response to a number of inquiries which were received regarding the applicability of the HCS requirements to naphthenic lubricating oils which are refined using a hydrotreatment process. These types of oils may be found in a number of industrial operations, including ink manufacture and the production of synthetic rubber.

Positive findings of carcinogenicity by the International Agency for Research on Cancer (IARC) must be reported under the HCS. The IARC Monograph 33 concludes that there is sufficient evidence to indicate that mildly hydrotreated and mildly solvent refined oils are carcinogenic. Therefore, under the requirements of the HCS, producers of such materials must report such findings on the MSDS's for the substance and include appropriate hazard warnings on labels.

IARC also stated that there is inadequate evidence to conclude that severely hydrotreated oils are carcinogenic, and that there is no evidence to indicate that severely solvent-refined oils are carcinogenic. In the absence of any valid, positive evidence from sources other than IARC regarding the carcinogenicity of severely hydrotreated or severely solvent-refined oils, no reference to carcinogenicity need be included on the MSDS's and labels for such materials. IARC has also concluded that when an oil is refined using sequential processing of mild hydrotreatment and mild solvent refining, there is no evidence of carcinogenicity.

The questions posed to OSHA concerned the process parameters used for mild hydrotreatment. OSHA examined the studies upon which IARC based its positive findings of carcinogenicity to determine the process parameters used to refine the oils studied. Any oil will be considered to be mildly hydrotreated if the hydrotreatment process was conducted using pressures of 800 pounds per square inch or less, and temperatures of 800 degrees Fahrenheit or less, independent of other process parameters. If the oil is being produced within the specified parameters, it must be considered to be potentially carcinogenic under the requirements of the HCS.

It should also be noted that negative evidence generated by a producer does not negate the positive IARC finding and cannot be used to dispute positive findings relating to any substance. The producer is free to report any negative findings as well, but there is a positive duty to report IARC's conclusions.

(d)(5): While the HCS does not require testing of chemicals to determine their hazards, some preparers of MSDS's are apparently considering testing mixtures as a whole so as not to have to list individual hazardous ingredients on the MSDS's. Should employers choose to pursue this option; i.e., to test the mixture as a whole, a full range of tests would have to be performed, including tests to determine health hazards (acute and chronic) and physical hazards. Employers may also choose to test for certain hazards or properties and rely on the literature for published information on the other hazards. Compliance officers can expect to see MSDS's which use both the tested and untested mixture approaches; e.g., perhaps an employer has determined a flash point for the mixture, but has not tested it for health hazards but has relied instead on information in the published literature for this section of the MSDS's. Such an approach to hazard determination is acceptable under the HCS. Where the physical characteristics have not been objectively determined, the employer may present data on the components in ranges; e.g., flash points range from 70 to 100 degrees Fahrenheit.

(d)(6): Employers who are not planning to evaluate the hazards of chemicals they purchase can satisfy the requirement for written hazard evaluation procedures by stating in their written program that they intend to rely on the evaluations of the chemical manufacturer or importer.

Downstream employers/employees do not have access to the written procedures maintained by the chemical manufacturer/importer. If there appears to be a problem with the information received, and it cannot be resolved with the supplier of the product, the matter should be referred to OSHA for investigation. OSHA does have access to the written procedures.

Written Hazard Communication Program.

(e)(1): All employers with employees who are, or may be, exposed to hazardous chemicals known to be present in their workplaces, must develop, implement, and maintain at primary workplace facilities and fixed worksite locations a written hazard communication program. Programs must be developed whether the employer generates the hazard or the hazard is generated by other employers. An effective program is one that promotes the safe handling and use of hazardous chemicals in the workplace.

(e)(2): Although a multi-employer worksite is not defined in the HCS, it is intended to mean those establishments where employees of more than one employer are performing work and are exposed to hazardous chemicals. The MSDS's information exchange or access requirements pertain to employers who introduce hazardous chemicals into the worksite and expose another employer's employees. All types of worksites may be "multi-employer worksites," not just construction sites. For example, a manufacturing employer becomes the "exposing employer" if he produces, uses or stores chemicals in such a way that he may expose the employees of another employer to hazardous substances. Now that the HCS is in effect in all industry sectors, an exposing employer must advise outside contractors working at his plant about the hazardous chemicals that the contractor's employees may be exposed to and vice versa.

Paragraph (e)(2)(i) requires an employer on a multi- employer worksite to provide other employers with a copy of pertinent MSDS's or to make them available at a central location in the workplace. This requirement covers each hazardous chemical to which the other employer's employees may be exposed. Therefore, one employer does not actually have to physically give another employer the MSDS's, but the employer must inform the other employer of the location where the MSDS's will be maintained (e.g., in the general contractor's trailer). The performance-orientation of the rule allows employers to decide the method to be used to accomplish the required exchange of information.

In the construction industry, it would probably be most efficient for the general contractor to coordinate the requirement for maintaining MSDS's on site. For example, the general contractor could keep and make available MSDS's in the office on the site.

An employer must provide MSDS(s) to other employers or make them available in a central location if the other employers will have employees exposed or potentially exposed. The potential exposure could even occur at some time in the future. For example, if a painting contractor's workers are using flammable solvents in an area where another subcontractor's workers are welding pipes, then the painting contractor must ensure that the MSDS's for the flammable solvents are available to the welding subcontractor's employees. However, if electricians are not working near or at the same time as the painting contractor, and therefore it is not possible for either employer's employees to be exposed, then no exchange of MSDS's is required.

The HCS's "multi-employer workplaces" provision at (e) (2) states that employers who produce, use or store hazardous chemicals at a worksite in such a way that the employees of other employers may be exposed must include in their written hazard communication program the methods to ensure that the other employers are adequately informed of the hazards and appropriate precautionary measures to be taken so they can protect their own employees. The intent of the HCS is met on multi-employer worksites when information on the hazards of chemical substances at the worksite is available to all affected employers and employees. All employers with employees potentially exposed to hazardous chemicals therefore must have in place an effective written hazard communication program that details how this intent will be met. If an employer does not bring hazardous chemicals on site, a list of hazardous chemicals is not required as part of his hazard communication program. Nevertheless, the employees must be trained how to use labels and MSDS's, to recognize hazards and to follow appropriate protective measures.

An exception to the requirement that the written hazard communication (HCP) be kept on-site on multi-employer worksites may be found in situations where an employee or employees must travel between workplaces or where their work is carried out at more than one geographical location, yet who, at some time, report to a primary workplace facility where the written HCP is maintained. The standard sets forth, at (e)(1), a positive requirement for the written program to be maintained "at the workplace." OSHA has interpreted this requirement to mean that the written program must be kept on-site, at all times, or even in the work truck of employees who travel between worksites.

OSHA Instruction CPL 2-2.38C (definitions cont.)

However, the Agency has proposed, in the 1988 Notice of Proposed Rulemaking, to add a new subparagraph to the paragraph (e) requirements to allow the written program to be maintained at a "central location at the primary workplace facility" for employees who travel between workplaces during a work shift (proposed new paragraph (e)(5)). The final rule presently allows MSDS's to be maintained at the central workplace for employees who travel between workplaces during a work shift (paragraph (g)(9)). The (g)(9) provisions also require that employees have immediate access to information in an emergency which is important since MSDS's must be readily accessible to employees in the event of an emergency, accidental leak, spill, etc.

Unlike the immediate need for MSDS's information to be readily accessible to employees while they are in their work area(s), the information contained in an employer's written HCP is mainly procedural and its presence on the worksite other than a fixed location may not have a direct or immediate relationship to employee safety or health. This is especially true in situations where employers are implementing an effective overall HCP and whose employees have already received the required hazard communication training. This means that employees are aware of the requirements of the employer's HCP, including being familiar with the list of hazardous chemicals known to be present, the labeling system in use, the presence of and accessibility to MSDS's, and have been trained in accordance with paragraph (h) requirements. The need for the program to be on-site, therefore, in situations where employees travel or are dispatched from a primary workplace location (e.g., administrative offices) where the written program is maintained to a multi-employer worksite may bear no immediate relationship to safety and health and may, in the professional judgment of the CSHO and Area Director, be considered a "de minimis" violation of section (e)(1). (See the FOM, Chapter IV, B.6., pages IV 30-31.)

This citation policy change applies even in situations where the employee does not return to the primary workplace during the work shift as long as the employee(s) is aware of the content of the program and the methods the program contains that affect the sharing of the hazard communication information required at (e)(2)(i-iii). Stated in another way, if hazard communication information (accessibility of MSDS's, the employer's labeling system, etc.) is not being shared with other on-site employers and the employees are unaware of the methods outlined in the program which have been developed to accomplish this intent, then the need for the program to be on-site would bear a direct relationship to safety and health and the absence of the program on-site would not be a "de minimis" violation.

At fixed worksite locations, the requirement for the written hazard communication program to be maintained on-site and readily accessible to employees remains. Again, an effective program is one that promotes the safe handling and use of hazardous chemicals in the workplace. Its immediate presence in other than fixed worksite locations bears a direct relationship to safety and health only when its procedural direction is necessary to direct the employers in their implementation of the overall hazard communication program's requirements.

OSHA's compliance and enforcement policies for multi-employer worksites are set forth in the FOM, Chapter V, sections F.1. and 2., which state that, with regard to working conditions where employees of more than one employer are exposed to a hazard, the employers "with the responsibility for creating and/or correcting the hazard" shall be cited for violations of OSHA standards that occur on that multi-employer worksite. Normally citations for violations shall be issued to each of the exposing employers as well as to the employer responsible for correcting or ensuring the correction of the condition.

Whenever the general contractor or the construction manager on a multi-employer worksite is in the best position to ensure that all contractors on site with hazardous materials comply with the standard's requirements, the general contractor or construction manager shall be cited for violations of the HCS as well as any contractor who has not complied.

(e)(4): Paragraph (e)(4) requires employers to make the written program available upon request to employees, OSHA and NIOSH, in accordance with the requirements of the Access Standard, 29 CFR 1910.20(e). This requirement is interpreted to apply to the requirement of the employer to provide a copy of the written program within the time periods discussed in 1910.20 (i.e., no later than 15 days after the request for access is made). It is not meant to allow an employer of a primary workplace facility or a fixed location worksite a 15-day time period in which to make the program available for inspection on-site. For fixed worksites and primary workplace facilities, the written hazard communication program must be maintained on-site at all times. OSHA interprets the 15-day period referenced in (e)(4) to pertain to the length of time the employer has in which to provide a copy of the program to the requesting party. (See discussion at subparagraph (e)(2) of this Appendix for OSHA citation policy regarding the maintenance of written programs on multi-employer or mobile worksite locations.)

Labels and Other Forms of Warning.

(f)(1): The purpose for labels under the standard is clear. Labels provide an immediate warning to employees of (f)(5) the hazards they may be exposed to and, through the chemical identity, labels provide a link to more detailed information available through MSDS's and other sources. Labels must contain the identity of the chemical, an appropriate hazard warning, and the name and address of the responsible party. OSHA recognizes that the degree of detail on a label needed to convey a hazard may be different within a workplace where other information is readily available, compared to labels required on shipped containers, where the label may be the only information available.

The standard's preamble recognizes the existence of numerous labeling systems that are currently in use in industry. Examples include the HMIS (Hazardous Materials Information System), NFPA (National Fire Protection Association) and ANSI (American National Standards Institute) systems. Some of these systems rely on a numerical and/or alphabetic codes to convey the hazards. Although these labeling systems may not convey the target organ effects, the intent of the standard is to permit the use of these systems for in-plant labeling as long as the written Hazard Communication Program adequately addresses the issue.

Paragraph (e)(1) of the HCS requires employers to include in their written hazard communication program a description of how the training requirements of paragraph (h) will be met, and subparagraph (e)(2)(ii) requires employees to be trained on the physical and health hazards of the chemicals they work with. OSHA has interpreted this to include being apprised of the target organ effects of the hazardous chemicals employees are or may be exposed to while working. The training program must therefore explicitly instruct employees on how to use and understand the plant's alternative labeling systems to ensure that employees are aware of the effects (including target organ effects) of the hazardous chemicals to which they are potentially exposed.

CSHOs must carefully review the overall hazard communication program to ensure its effectiveness in meeting all the requirements of the HCS. One way for CSHOs to determine the effectiveness of the training program, including employee understanding of target organ effects, especially when numerical or other systems are used for in-plant labeling, is through employee interviews. An employer relying on one of the above-mentioned labeling systems may therefore have to augment his hazard communication training program to specifically address the target organ effects that may not be easily discernable from a numerical warning system.

However, for shipped containers the hazard warning must be included on the label and must specifically convey the hazards of the chemical. OSHA has consistently maintained that this includes target organ effects. Casarett and Doull's Toxicology, the Basic Science of Poisons discusses target organs:

"Most chemicals that produce systemic toxicity do not cause a similar degree of toxicity in all organs but usually produce the most toxicity to one or two organs. These are referred to as target organs of toxicity for that chemical."

OSHA Instruction CPL 2-2.38C (definitions cont.)

Appendix A of the HCS clearly states that employees exposed to health hazards must be apprised of both changes in body functions and the signs and symptoms that may occur to signal the changes. A label incorporating a rating system is not permitted for shipped containers unless additional label information is affixed to the container. The specific hazards indicated in the standard's definitions for "physical" and "health" hazards are applicable. Phrases such as "caution", "danger", or "harmful if inhaled", are precautionary statements, not hazard warnings. The definition of "hazard warning" states that the warning must convey the hazards of the chemical and is intended to include the target organ effects. If, when inhaled, the chemical causes lung damage, then that is the appropriate warning. Lung damage is the hazard, not inhalation.

There are some situations where the specific target organ effect is not known. Where this is the case, the more general warning statement would be permitted. For example, if the only information available is an LC50 test result, "harmful if inhaled" may be appropriate.

It will not necessarily be appropriate to warn on the label about every hazard listed in the MSDS's. The data sheet is to address essentially everything that is known about the chemical. The selection of hazards to be highlighted on the label will involve some assessment of the weight of the evidence regarding each hazard reported on the data sheet. Assessing the weight of the evidence prior to including a hazard or, a label will also necessarily mean consideration of exposures to the chemical that will occur to workers under normal conditions of use, or in foreseeable emergencies. However, this does not mean that only acute hazards are to be covered on the label, or that well substantiated hazards can be left off the label because they appear on the data sheet.

An example of a situation where it may not be necessary to include the presence of a hazardous ingredient in a formulation when developing the product's label follows: Recently, IARC published monograph no. 44, entitled, "Alcohol Drinking." IARC's determination on the carcinogenicity of ethanol is based on chronic exposure to ethanol through human consumption via the drinking of alcoholic beverages, over time. In performing the hazard determination on a product mixture which contains ethanol as one of the hazardous ingredients, a chemical manufacturer must, under the HCS, include mention of ethanol as a hazardous ingredient on the MSDS's, along with the findings as published in the IARC monograph. As part of the hazard determination, manufacturers must consider exposures to the chemical product that would occur under normal conditions of use or in foreseeable emergencies, and toxicity associated with all routes of entry. If a chemical manufacturer were to formulate a product which contained ethanol as part of the mixture, but the product's intended use did not involve exposure through ingestion of the ethanol, the manufacturer could document the intended use and resultant exposure scenarios on the MSDS's but not label the product as a "carcinogen." Again, the information about the carcinogenicity of ethanol would need to appear on the MSDS's, but since exposure under normal conditions of use, etc., would not involve ingestion and since the only evidence calling ethanol a human carcinogen comes from studies involving chronic alcoholic beverage ingestion, the weight of the evidence would preclude the requirement to warn of carcinogenic hazards on the label of the product.

Exposure calculations are not permitted in determining whether a hazard must appear on a label. If there is a potential for exposure other than in minute, trace or very small quantities, the hazard must be included when substantiated as required by the HCS. Suppliers may not exclude hazards based on presumed levels of exposure downstream (i.e., omitting a carcinogenic hazard warning because, in the supplier's estimate, presumed exposures will not be high enough to cause the effect). The hazard is an intrinsic property of the chemical. Exposure determines degree of risk and should be addressed in training programs by the downstream employer.

OSHA Instruction CPL 2-2.38C (definitions cont.)

The labeling requirements for shipped containers leaving the workplace apply regardless of whether the intended destination is interstate or intrastate. If the shipment is to another establishment, even within the same company, the shipped labeling provisions apply. Even sealed containers intended for export must comply with the labeling provisions if these containers leave the workplace and if downstream employees such as dock workers may be exposed to the hazardous chemical(s). Containers must be labeled as soon as practicable before leaving the workplace. If the container is a tank truck, rail car, or other vehicle carrying a hazardous chemical(s) not already in a labeled container(s), the appropriate label or label information may either be posted on the tank or vehicle, or attached to the accompanying shipping papers or bill of lading. Employers purchasing hazardous chemicals must ensure that their employees are aware of the label warning before potential exposure to incoming chemicals occur. A label may not be shipped separately, even if it is prior to shipment of the hazardous chemical since to do so defeats the intended purpose which is to provide an immediate hazard warning. Mailing labels directly to purchasers will bypass those employees involved in transporting the hazardous chemical. (Note the exception in (f)(2) for solid metals. Containers of solid metals not otherwise meeting the definition of an article need to be labeled only with the initial shipment (unless the information on the label changes).)

Although no explicit requirement exists regarding the updating of labels when new information becomes available, the warning would no longer be appropriate if the MSDS's contained new hazard information that needed to be included on the label. Since the MSDS's must be updated within three months of receipt of new information, the label must be, too, in order to accurately reflect the MSDS's information. Note that distributors have no affirmative obligation to create the container labeling information for hazardous chemicals which they merely send unchanged to their customers, but they do have the responsibility to obtain missing labels from the chemical manufacturer/importer. Distributors must duplicate label information on chemicals which they repackage.

(f)(5): An employer's obligation to label in-plant and containers of hazardous chemicals requires that all (f)(6) appropriate hazard warnings appear on the label pursuant to (f)(5)(ii). For example, an employer who elects to label only some of the health hazard warnings associated with the chemical while omitting other recognized hazards, such as carcinogenicity, selectively deprives his employees of critical hazard information and shall be cited under (f)(5)(ii). However, if the downstream employer has relied in good faith on the adequacy of the label as prepared by the chemical manufacturer and the label contains an inadequate hazard warning(s), the CSHO shall follow the referral procedures outlined in K.7.a.(7) of this instruction.

For purposes of reviewing alternative in-plant labeling methods under (f)(6), the CSHO shall note that this provision allows alternative means of identification only in the event that an employer chooses to forego labeling an in-plant container under (f)(5). Thus, an employer may not claim that it supplemented its partial compliance with (f)(5)(ii); i.e., labeling only some of the chemical's health hazard warnings, with one of the alternative means of identification enumerated in (f)(6). The key to evaluating the effectiveness of any alternative labeling method is to determine whether it provides an immediate visual warning of the chemical hazards of the workplace, identifies the applicable chemical and container, and conveys the appropriate hazard warnings. The alternative labeling system must also be readily accessible to all employees in their work area throughout each work shift. For purposes of this provision, the term "other such written materials" does not include material safety data sheets used in lieu of labels.

As specified in the rule, chemicals which have been indicated as positive or suspect carcinogens by either OSHA, the International Agency for Research on Cancer (IARC) or the National Toxicology Program (NTP) will be considered to be carcinogenic for purposes of the HCS.

Those chemicals identified as being "known to be carcinogenic" and those substances that may "reasonably be anticipated to be carcinogenic" by NTP must have carcinogen warnings on the label and information on the MSDS's. For NTP, appearing on the annual listing constitutes a positive finding of suspect or confirmed carcinogenicity.

OSHA's comprehensive substance specific regulations in Subpart Z of 1910 contain provisions for labeling. Therefore, containers of hazardous chemicals labeled in accordance with the substance specific standard will be deemed to be in compliance with the health effects labeling requirements of the standard. An exception to this is OSHA's Formaldehyde Standard, for which an administrative stay of the hazard communication provisions (sections (m)(1)(i) and (m)(1)(ii)) is in effect. The HCS is enforceable for these provisions of the formaldehyde standard.

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OSHA Instruction CPL 2-2.38C (definitions cont.)

It should be noted that in many instances the labeling requirements of the comprehensive substance specific standard address only carcinogenicity and do not address acute health hazards or physical hazards. Those chemicals regulated by OSHA as carcinogens in substance specific standards that include labeling requirements are listed below:

Asbestos
4-Nitrobiphenyl
Alpha-Naphthylamine
Methyl Chloromethyl Ether
3,3' Dichlorobenzidine (and its salts)
Bis-Chloromethyl Ether
Beta-Naphthylamine
Benzidine
4-Aminodiphenyl
Ethylenediamine
Beta-Propiolactone
2-Acetylaminofluorene
4-Dimethylaminoazobenzene
N-Nitrosodimethylamine
Vinyl Chloride (and Polyvinyl Chloride)
Inorganic Arsenic
1,2 Dibromo-3-Chloropropane
Acrylonitrile
Ethylene Oxide
Formaldehyde
Benzene

In addition to those chemicals for which OSHA has substance-specific standards, OSHA has set new permissible exposure limits for several substances based on avoidance of cancer. These substances are specified in the preamble to the Air Contaminants rule published January 19, 1989. (See Table C15-1 on pages 2669-71 of the Federal Register notice of that date.)

IARC evaluates chemicals, manufacturing processes, and occupational exposures as to their carcinogenic potential. The IARC criteria for judging the adequacy of available data and for evaluating carcinogenic risk to humans were established in 1971 (Volumes 1-16) and revised in 1977 (Volumes 17 and following).

The individual monographs contain evaluations on specific chemicals or processes. At the conclusion of each evaluation, IARC provides a summary evaluation for the individual chemical. Periodically, IARC publishes Supplements in which chemicals that have already been evaluated in previous monographs are reevaluated. In cases where a chemical has been reevaluated, the most recent IARC evaluation shall be relied upon.

IARC provides a summary in Supplement 7 of the chemicals which have been evaluated in Volumes 1-42. Table I of Supplement 7 provides a summary evaluation of all chemicals for which human and animal data were considered. Table I of Supplement 7 also provides a summary classification of a chemical's carcinogenic risk:

- Group 1 - The agent is carcinogenic to humans.
- Group 2A - The agent is probably carcinogenic to humans.
- Group 2B - The agent is possibly carcinogenic to humans.
- Group 3 - The agent is not classifiable as to its carcinogenicity to humans.
- Group 4 - The agent is probably not carcinogenic to humans.

All IARC listed chemicals in Groups 1 and 2A must include appropriate entries on both the MSDS's and on the label. Group 2B chemicals need be noted only on the MSDS's.

OSHA Instruction CPL 2-2.38C (cont.)

Individual monographs have been published subsequent to Supplement 7. For purposes of compliance with the MSDS's and labeling requirements, the IARC monograph's summary evaluation for the chemical can generally be relied upon but it may be necessary to review the actual evaluations. In some cases, a group of compounds may be listed in the summary as carcinogenic but closer examination of the appropriate monograph will reveal that IARC had data to support the carcinogenicity of only certain compounds. Those compounds are the only ones covered by the HCS. IARC also evaluates specific industrial processes or occupations for evidence of increased carcinogenicity. Findings that an occupation is at increased risk of carcinogenicity, without identification of specific causative agents, do not affect label or MSDS's requirements.

In addition, the existence of one valid, positive study indicating carcinogenic potential in either animals or humans is sufficient basis for a notation on the MSDS's. Further, if such studies include positive human evidence, then the label must contain carcinogen hazard warnings.

Table 1, below, represents a general guide regarding the labeling and MSDS's requirements under the HCS. The existence of positive human evidence on carcinogenicity always requires carcinogen warnings on the label. In addition, there may be instances where a carcinogen warning may be required for a chemical that is not listed by IARC or NTP but multiple animal studies indicate carcinogenicity. Such cases shall be reviewed by the Regional Administrator and coordinated by the Directors of Compliance and Health Standards Programs.

TABLE 1

GUIDANCE FOR MSDS AND LABEL NOTATIONS FOR CARCINOGENS

Source MSDS Label

Regulated by OSHA XX
as a carcinogen

Listed on NTP XX
Carcinogen Report

IARC--Group 1 XX
IARC--Group 2A XX
IARC--Group 2B X Not Required
IARC--Group 3 Not Required Not Required
IARC--Group 4 Not Required Not Required

One Positive X Not Required
Study-Animal Only

Multiple Animal X Depends on
Studies weight of
evidence; N.O.
review needed.

One Positive XX
Study-Some Human
Evidence

Given the above criteria, benzene, which is regulated by OSHA as a carcinogen and for which several valid, positive human studies exist, would require both MSDS's and label notations whereas a substance for which only some animal data exist does not. Polyvinyl resin must be labeled as a carcinogen but final molded and extruded products do not need to be (as per 29 CFR 1910.1017). (See also the discussion on IARC's determination on the carcinogenicity of "Alcohol Drinking," IARC Monograph No. 44, as it pertains to labeling requirements (page A-15).)

OSHA Instruction CPL 2-2.38C (cont.)

Material Safety Data Sheets.

(g)(1): Chemical manufacturers/importers who choose to purchase data sheets for their products from information services, rather than developing them themselves, retain responsibility for providing the sheets and for assuring their accuracy. Employers who in good faith choose to rely upon the sheets provided to them by the chemical manufacturer/importer assume no responsibility for their contents.

The MSDS's requirements apply to free samples provided by chemical manufacturers and importers since the hazards remain the same regardless of the cost to the employer.

Even though solid metals are covered differently under the labeling requirements, the full MSDS's requirements still pertain.

Chemical manufacturers often receive requests for MSDS's from customers for chemicals or articles which are not covered under the HCS. The HCS does not require MSDS's to be provided under those circumstances. If the chemical manufacturer/importer chooses to provide the MSDS's as a customer service, it may be noted on the sheet that the chemical or article has been found by the company not to be covered by the rule. For example:

This product is not considered to be or to contain hazardous chemicals based evaluations made by our company under the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

The MSDS's may not indicate that OSHA has made such a finding for the product since the Agency does not make such case-by-case hazard determinations.

The safety and health precautions on the MSDS's must be consistent with the hazards of the chemicals. Some MSDS's include recommendations for protective measures that are for "worst case scenarios," e.g., recommending supplied air suits for products of relatively low toxicity. The HCS requires that accurate information be provided on the MSDS's. This applies as much to "overwarning" on the MSDS's/label as well as the absence of information ("underwarning").

Scrap dealers are generally considered distributors and, since their products are not articles, would NOT be exempt from the HCS. If their suppliers are furnishing articles which they did not manufacture, (such as a broken refrigerator), the supplier is not required to provide a label or MSDS's. However, if their suppliers added hazardous chemicals to the article, as would be the case if an employer scraps pipes that contained a hazardous chemical and continues to contain its residue, the supplier must provide a label and MSDS's to the scrap dealer. In addition, "article" manufacturers that sell for scrap those produced items that fail specification or suppliers who provide, for example, metal tailings from a manufacturing process, are considered by OSHA to have the required knowledge of the item's constituents and must develop and transmit MSDS's and labels to downstream scrap dealers.

(2): The OSHA Form 20 has been obsolete since May 1986. Simply following the titles of the blocks to complete the Form 20 will not result in an appropriate sheet, but it could be modified to comply. Any format is acceptable, as long as the required information is included. OSHA has published a sample MSDS's, form number OSHA-174. This is an optional form which may be used to comply with the HCS.

The requirement that the MSDS's be in English is intended to prevent importers of chemicals from transmitting MSDS's written in a foreign language. However, this requirement was not intended to prevent the translation into foreign languages to aid employee understanding.

If a hazardous chemical is present in the mixture in reportable quantities (i.e., 0.1 percent for carcinogens, and 1 percent for other health hazards), it must be reported unless the mixture has been tested as a whole or unless the material is bound in such a way that employees cannot be exposed. If there really is no exposure (and the standard defines exposure as including potential as well as measurable exposure by any route of entry), either under normal conditions of use or in a foreseeable emergency, then the chemical is not covered by the standard. (See paragraph (b)(2).) In the case of mixtures that are liquid, this provision has to be considered very carefully. For example, if silica is present in a wet mixture it is possible that, if the mixture dries upon application, there is a potential for the silica to become airborne, and thus a potential for exposure. The presence of silica must be indicated on the MSDS's for the liquid mixture in this situation.

For mixtures, if the employer is assuming the mixture has the same hazards as its hazardous components (i.e., no test data on the mixture as a whole), the data sheets for the components will satisfy the requirements of the standard for a data sheet for the mixture. These MSDS's must be physically attached to one another and identified in a manner where they can be cross-referenced with the label. This approach is acceptable provided the MSDS's includes the PEL, TLV, and other exposure limits for each ingredient that has been determined to be a health hazard.

Information must also be included on the MSDS's for ingredients of a mixture present in concentrations of less than 1% (or 0.1% for carcinogens) when the hazardous substance may be released in a concentration which exceeds a PEL or TLV or may present a health risk to exposed employees. An example of the latter may be TDI because it is a sensitizer in very small concentrations, thereby presenting a health risk that must be noted on the MSDS's.

A statement that the chemical is not a carcinogen is not required nor must the MSDS's format include a space for such a statement. However, if the format used provides a space for a carcinogen entry, one must be made since no blank spaces may be present on the MSDS's.

The MSDS's must include a telephone number for emergency information. There is no requirement that the responsible party staff a telephone line with personnel who can respond to an emergency 24 hours a day. The hours of emergency line operation are determined by the chemical manufacturer and should be set after considering the thoroughness of the MSDS's, the hazards of the chemicals, the frequency of use and immediacy of information needs, and the availability of information through alternative sources. One effective alternative used by some suppliers is to have a telephone answering machine that is on when the facility is closed. The message refers callers to the appropriate official in the event of an emergency.

(g)(3): The standard requires that all blocks on a form be completed. Because the standard is performance-oriented, however, employers are free to develop MSDS's in any format they wish (as long as it contains the required information). Computer-generated MSDS's do not have to include fields which do not apply to the chemicals for which it is being used.

(g)(4): Where the evidence can support the fact that a class or family of chemicals presents similar health hazards, it would be appropriate to report those findings on the MSDS's with respect to the entire class or family. Thus, a "generic" MSDS's may address a group of complex mixtures, such as crude oil or natural gas, which have similar hazards and characteristics because their chemical ingredients are essentially the same even though the specific composition varies in each mixture.

(g)(5): Paragraph (g)(5) requires new or significant information to be added to the MSDS's within three months. The Air Contaminants Rule, 29 CFR 1910.1000, was promulgated January 19, 1989, and set new PEL's for 164 substances not previously regulated by OSHA and lowered the PEL's for 212 substances. These new PEL's must appear on the MSDS's. The "old" PEL's, referred to as the "transitional limits," air contaminant limits which must be met via the use of engineering controls, may also appear on the MSDS's, but as "new or significant" information regarding the hazard of a chemical, the new PEL's must now be included on the MSDS's.

Citations for incomplete or inaccurate MSDS's/labels shall include an abatement requirement for the transmittal of corrected MSDS's/labels to all customers with the next shipment of the chemical.

(g)(6): This paragraph contains the obligation for an employer to obtain the MSDS's as soon as possible if it was not provided with the shipment. It is not necessary for the employer to perform a hazard determination but only to request the MSDS's. If the container label indicates a hazard, the employer will know an MSDS's is necessary.

(g)(6): Chemical manufacturers and importers have a duty to provide MSDS's to distributors (g)(7) and employers. Thus, a chemical manufacturer and/or importer shall be cited under (g)(6) if they withhold sending MSDS's to downstream users with an initial shipment or with the first shipment after updating an MSDS's, pending a separate payment for the MSDS's. Similarly, under (g)(7), distributors have an affirmative duty to provide MSDS's to other distributors and downstream employers and cannot withhold sending the MSDS's pending separate payment.

OSHA Instruction CPL 2-2.38C (cont.)

(g)(7): See Definitions (c), in this Appendix, for a discussion of commercial account. Employers purchasing hazardous chemicals from a retail distributor, whose employees will be required to use those chemicals with a greater frequency and duration of exposure than that of regular consumers, must request the MSDS(s) from the retail distributor in order to provide his employees protection under the HCS.

(g)(8): This provision requires MSDS's or electronically accessible MSDS's to be maintained on site. Readable copy of MSDS(s) must be available on-site. This may be accomplished by the use of computers with printers, microfiche machines, and/or telefax machines, any of which would meet the intent of the standard. The key to compliance with this provision is that employees have no barriers to access to the information and that the MSDS's be available during the work shift. When direct and immediate access to paper or hard-copy MSDS's does not exist, CSHOs should evaluate the performance of the employer's system by requesting a specific MSDS's. Mere provision of the requested information orally via telephone is not acceptable.

CSHOs must exercise judgment in enforcing this provision. Factors that may be appropriate to consider when determining if MSDS's are readily accessible may include: Must employees ask a supervisor or other management representative for the MSDS's? Are the sheets or alternative methods maintained at a location and under conditions where employees can refer to them during each work shift, when they are in their work areas? If a computer or FAX system is used, do employees know how to operate and obtain information from the system? Employees must have access to the MSDS's and be able to get the information when they need it, in order for an employer to be in compliance with the rule.

On multi-employer job sites, employers who produce, use or store hazardous chemicals in such a way that other employers' employees are exposed must also provide copies of or access to MSDS's as discussed in section (e) of this Appendix. Again, actual paper copies of data sheets, computer terminal access, FAX, or other means of providing readable copy on-site are permitted, as long as no barriers to employee access exist.

(g)(9): If employees work at more than one site during the shift, they must be able to immediately obtain the MSDS's information in an emergency. While the MSDS's may be maintained at a central location in the primary workplace facility, a representative of the employer must be available at that central location to respond to requests for emergency information via telephone or other means.

(g)(10): Computerized data sheets are permitted as long as they are readily accessible to employees (i.e., employees have been trained and know how to operate the computers or otherwise access the MSDS's files). Many larger firms use terminals in plant and train key employees to access them. This is acceptable, as long as the information can be obtained during any work shift, as required by the HCS. Similarly, the use of telefax machines to obtain MSDS's is acceptable as long as the system is reliable and readily accessible while employees are in their work areas during all work shifts.

Employee Information and Training.

(h): Employees are to be trained at the time they are assigned to work with a hazardous chemical. The intent of this provision is to have information prior to exposure to prevent the occurrence of adverse health effects. This purpose cannot be met if training is delayed until a later date.

Additional training is to be done whenever a new hazard is introduced into the work area, not a new chemical. For example, if a new solvent is brought into the workplace, and it has hazards similar to existing chemicals for which training has already been conducted, then no new training is required. Of course, the substance-specific data sheet must be available, and the product must be properly labeled. If the newly introduced solvent is a suspect carcinogen, and there has never been a carcinogenic hazard in the workplace before, then new training for carcinogen hazards must be conducted in the work areas where employees will be exposed to it.

Complete retraining of an employee does not automatically have to be conducted when an employer hires a new employee, if the employee has received prior training by a past employer, an employee union, or any other entity. It is highly unlikely that no additional training will be needed since employees will need to know the specifics of their new employers' programs such as where the MSDS's are located and details of the employer's in-plant labeling system, if appropriate.

OSHA Instruction CPL 2-2.38C (cont.)

If it is determined that an employee has not received training or is not adequately trained, the current employer will be held responsible regardless of who provided the training to the employee. An employer, therefore, has a responsibility to evaluate an employee's level of knowledge with regard to the training and information requirements of the standard, and the employer's own hazard communication program, including previous training the employee may have received. The training requirements also apply if the employer becomes aware via the multi-employer worksite provision of exposure of his employees to hazards for which they have not been previously trained.

Training need not be conducted on each specific chemical found in the workplace, but may be conducted by categories of hazard (e.g., carcinogens, sensitizers, acutely toxic agents) that are or may be encountered by an employee during the course of his duties. This approach to training may be especially useful when training employees about the types of hazards they may encounter at another employer's worksite.

A frequently overlooked portion of the training provisions is that dealing with emergency procedures. If the chemical is very hazardous, more information would be expected to be provided on the MSDS's and, therefore, the training for emergency procedures, including information about the characteristics of the chemical and precautions to be taken would need to be more extensive. Section 1910.1200(h) requires training of employees on (among other things) the measures employees can take to protect themselves from hazards including emergency procedures and an explanation of the information on the MSDS's. Section (g)(2)(viii) of the HCS requires the MSDS's to address safe handling and use of chemicals which includes cleanup of spills and leaks. Section (g)(2)(x) requires the MSDS's to address emergency and first aid procedures.

Questions have arisen regarding the interface of 1910.120 training requirements for emergency procedures and those for the HCS. The scope and extent of training regarding emergency procedures will necessarily be dependent upon the desired response of employees to an emergency. If the employer intends to merely evacuate the work area, the training in emergency procedures would be quite simple and limited but should include information on the emergency alarm system in use at the worksite and evacuation routes and areas where applicable. However, if the employees are expected to take appropriate action to moderate or control the impact of the emergency in a similar fashion as emergency responders would, then additional training will be required. At a minimum, training these responders on the "emergency procedures" required under section (h) should include, as applicable, leak and spill cleanup procedures, appropriate PPE, decontamination procedures, shut-down procedures, recognizing and reporting unusual circumstances (incidents), and where to go (evacuate to) in an emergency.

Giving an employee a data sheet to read does not satisfy the intent of the standard with regard to training. The training is to be a forum for explaining to employees not only the hazards of the chemicals in their work area, but also how to use the information generated in the hazard communication program. This can be accomplished in many ways (audiovisuals, classroom instruction, interactive video), and should include an opportunity for employees to ask questions to ensure that they understand the information presented to them.

Furthermore, the training must be comprehensible. If the employees must receive job instructions in a language other than English, then training and information will probably also need to be conducted in a foreign language.

Trade Secrets.

(i)(2): The designation of an incident as a "medical emergency" is left to the discretion of the treating physician or nurse.

APPENDIX B

Sample Letter, MSDS/Label Query

Dear (Name or Position of Responsible Employer Representative):

Representatives of the Occupational Safety and Health Administration (OSHA)/or State plan designated agency recently visited/or corresponded with (company name), which purchases the following chemical(s) from your company:

(List chemicals, products)

OPTION 1: At the time of the visit, (company name) did not have Material Safety Data Sheets (MSDS)/labels for these products despite their prior request for it.

OPTION 2: At the time of the visit, Material Safety Data Sheets (MSDS)/labels supplied by your company were found to be deficient. (Describe the specific deficiencies.)

You are required under OSHA's Hazard Communication Standard (29 CFR 1910.1200) or your State's right-to-know law to perform hazard determinations, label containers, and provide the MSDS for all hazardous chemicals which you produce or import. A copy of the standard is provided for your reference. Please immediately send properly completed material safety data sheets/labels for the chemicals listed above to your customer and a copy to me. If this information is not received within 30 days, an inspection of your establishment may be conducted.

If the MSDS/label described above was deficient, you are also required to send revised copies to all of your customers with the first shipment after a MSDS/label is revised.

APPENDIX C

Hazard Evaluation Procedures

The hazard evaluation procedures required by the standard are performance-oriented. Basically, OSHA's concern is that the information on labels and data sheets, and in the training program, is adequate and accurate. Although specific procedures to follow and number of sources to be consulted cannot be established, general guidance can be provided. The hazard evaluation process can be characterized as a "tiered" approach--the extent to which a chemical must be evaluated depends to a large degree upon the common knowledge regarding the chemical, whether its health effects are under review, and how prevalent it is in the workplace.

1. The first step for CSHO's evaluating chemicals is to determine whether the chemical is part of the "floor" of chemicals to be considered hazardous in all situations.
 - a. The floor of chemicals consists of three sources. They are as follows:
 - (1) Any substance for which OSHA has a permissible exposure limit (PEL) in 1910.1000, or a comprehensive substance-specific standard in Subpart Z. This includes any compound of such substances where OSHA would sample to determine compliance with the PEL.
 - (2) Any substance for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a Threshold Limit Value (TLV) in the latest edition of their annual list is to be included in the Hazard Communication Program. Any mixture or combination of these substances would also be included.
 - (3) Any substance which the National Toxicology Program (NTP) or the International Agency for Research on Cancer (IARC) has found to be a suspect or confirmed carcinogen or which OSHA regulates as a carcinogen is to be included in the Hazard Communication Program.
 - b. Sources to generally establish hazards of the chemicals that are part of the floor of hazardous chemicals covered by the standard: The OSHA Chemical Information Manual, OSHA Instruction CPL 2-2.43, October 20, 1987.

NIOSH/OSHA Occupational Health Guidelines.

Documentation for the Threshold Limit Values.

NTP Summary of the Annual Report on Carcinogens.

IARC Monographs.

In addition, the CSHO should check the NIOSH Registry of Toxic Effects of Chemical Substances (RTECS) to see if any hazards are indicated which do not appear in these sources. If there are, further study should be done to evaluate the hazards. RTECS should never be considered a definitive source for establishing a hazard since it consists of data that has not been evaluated. It is, however, a useful screening resource.

2. The second step is to consult other generally available sources to see what has been published regarding the chemical. Patty's Industrial Hygiene and Toxicology would be one such source. OCIS contains a number of other chemical information sources. Material Safety Data Sheets available through information services would also be useful.

OSHA Instruction CPL 2-2.38C (cont.)

3. The third step, for those chemicals where information is not readily available or where such available information is not complete, is to perform searches of bibliographic data bases. In general, the National Library of Medicine (NLM) services should be used. These include the Toxicology Data Bank (TDB), TOXLINE, and MEDLARS. The information generated by these data bases should be valued using the criteria in Appendix B of the HCS; i.e., to qualify as an acceptable study, it must be conducted according to scientific principles (e.g., in animal studies, number of subjects is adequate to do statistical analyses of the results; control group is used, and the study must show statistically significant results indicating an adverse health effect). This evaluation obviously requires a subjective, professional assessment. Any questions should be referred to the Directorate of Compliance Programs, Office of Health Compliance Assistance (through the Regional Office) for assistance. In general, uncorroborated case reports and in vitro studies, such as Ames tests, are useful pieces of information, but not definitive findings of hazards. Animal studies involving species other than those indicated in the acute hazard definitions must be evaluated as well. The acute hazard definitions are not included in the standard to "categorize" chemicals but rather to establish that chemicals meeting those definitions fall under the coverage of the standard.
4. In some cases, the only information available on substance may be employer-generated data. If the employer indicates that such information is the basis for the hazard evaluation, the CSHO shall ask to see it to complete the OSHA evaluation.
5. In cases where the employer denies the CSHO access to its own hazard data and no published data on the chemical can be found to review the sufficiency of the hazard determination, the Regional Office shall be contacted for assistance in obtaining an administrative subpoena. The Directorate of Compliance Programs shall be contacted if assistance is required in order to obtain unpublished chemical hazard information available from other Federal agencies such as Environmental Protection Agency.
6. If an employer has found any chemical to be non-hazardous, and the CSHO has reason to believe it is hazardous, further investigation is required. The definitions of hazard in the standard are very broad, and it is not expected that many chemicals can be considered nonhazardous under this approach. Those most likely to be exempted would be chemicals that pose no physical hazards, and which have lethal dose findings above the limits found in the acute hazard definitions.
7. In some cases, the employer may not have addressed in the Hazard Communication Program a specific chemical that the CSHO knows to be present through knowledge of the process or through sampling or other investigation of the workplace. This situation should also be further investigated. If the CSHO has information to indicate that there is a hazard, the employer must be able to defend the finding of no hazard.

APPENDIX D

Guide for Reviewing MSDS Completeness

NOTE: This guide has been developed for use as an optional aid during inspections.

During CSHO review for Material Safety Data Sheet completeness, the following questions may be helpful:

1. Do chemical manufacturers and importers have an MSDS for each hazardous chemical produced or imported into the United States?
2. Do employers have an MSDS for each hazardous chemical used?
3. Is each MSDS in at least English?
4. Does each MSDS contain at least the:
 - (a) Identity used on the label?
 - (b) Chemical and common name(s) for single substance hazardous chemicals?
 - (c) For mixtures tested as a whole:
 - (1) Chemical and common name(s) of the ingredients which contribute to the known hazards?
 - (2) Common name(s) of the mixture itself?
 - (d) For mixtures not tested as a whole:
 - (1) Chemical and common name(s) of all ingredients which are health hazards (1 percent concentration or greater), including carcinogens (0.1 percent concentration or greater)?
 - (2) Chemical and common name(s) of all ingredients which are health hazards and present a risk to employees, even though they are present in the mixture in concentrations of less than 1 percent or 0.1 percent for carcinogens?
 - (e) Chemical and common name(s) of all ingredients which have been determined to present a physical hazard when present in the mixture?
 - (f) Physical and chemical characteristics of the hazardous chemical (vapor pressure, flash point, etc.)?
 - (g) Physical hazards of the hazardous chemical including the potential for fire, explosion, and reactivity?
 - (h) Health hazards of the hazardous chemical (including signs and symptoms and medical conditions aggravated)?
 - (i) Primary routes of entry?
 - (j) OSHA permissible exposure limit (PEL)? The American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV)? Other exposure limit(s) (including ceiling and other short term limits)?

OSHA Instruction CPL 2-2.38C (cont.)

- (k) Information on carcinogen listings (reference OSHA regulated carcinogens, those indicated in the National Toxicology Program (NTP) Annual Report on Carcinogens and/or those listed by the International Agency for Research on Carcinogens (IARC))?**

NOTE: Negative conclusions regarding carcinogenicity, or the fact that there is no information, do not have to be reported unless there is a specific space or blank for carcinogenicity on the form.

- (l) Generally applicable procedures and precautions for safe handling and use of the chemical (hygienic practices, maintenance and spill procedures)?**
- (m) Generally applicable control measures (engineering controls, work practices and personal protective equipment)?**
- (n) Pertinent emergency and first aid procedures?**
- (o) Date that the MSDS was prepared or the date of the last change?**
- (p) Name, address and telephone number of the responsible party?**

5. Are all sections of the MSDS completed?

OSHA Instruction STD 2.1

JAN 20, 1987

SUBJECT: Application of the Hazard Communication Standard to the Shipyard Employment Industry.

A. Purpose. This instruction provides interpretations applicable to the use of the Material Safety Data Sheet in shipyard employment for compliance with the Hazard Communication Standard (HCS), 29 CFR 1910.1200, effective as of May 25, 1986.

B. Scope. This instruction applies OSHA-wide.

C. References.

1. Hazard Communication Standard, 29 CFR 1910.1200.
2. Shipyard Employment, Health and Sanitation, 29 CFR 1915.97.
3. OSHA Instruction CPL 2-2.38A, May 16, 1986, Inspection Procedures for the Hazard Communication Standard, 29 CFR 1910.1200.

D. Action. Regional Administrators and Area Directors shall ensure that the application of 29 CFR 1910.1200 to the shipyard employment industry is consistent with the interpretations set forth in this instruction.

E. Federal Program Change. This instruction describes a Federal Program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this change is forwarded to each State designee.
2. Explain the technical content of the change to the State designee as requested.
3. Ensure that State designees whose State plans cover the maritime issue (including those States where State or local government employees are engaged in maritime employment) are asked to acknowledge receipt of the plan change in writing, within 30 days of notification, to the Regional Administrator. The acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.
4. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel. Routine monitoring activities shall also be used to determine if this change has been implemented in actual performance.

F. Interpretation. The following interpretations are submitted to avoid any misunderstanding as to the application of the Hazard Communication Standard to the shipyard employment industry:

1. The HCS is applicable to all employment in SIC Codes 20-39 which include shipbuilding and ship repairing employment. As of May 25, 1986, shipbuilding and ship repairing cease to be covered by 29 CFR 1915.97 (a)-(d).
2. Shipbreaking which is included in SIC Code 44 is not currently covered under 29 CFR 1910.1200. The shipbreaking segment of the industry will continue to be covered by 29 CFR 1915.97(a), (b), (c), and (d). However, OSHA will regard failure to use Form 20 to be a "de minimis" violation for employers in shipbreaking if the form used provided all information required by the HCS.
 - a. It should be noted that there are some differences between what is required by 29 CFR 1910.1200 and what is required on the OSHA Form 20. The HCS requires that the hazardous chemical's primary route of entry into the body be identified and whether the hazardous chemical is listed in the National Toxicology Program (NTP) "Annual Report of

OSHA Instruction STD 2.1 (cont.)

Carcinogens" (latest edition), or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) "Monographs" (latest edition), or by OSHA.

- b. In addition, if no relevant information is found for any given category on the Material Safety Data Sheet, the chemical manufacturer, importer or employer preparing the Material Safety Data Sheet shall mark it to indicate that no applicable information was found.**
- 3. The Material Safety Data Sheet for shipbreaking is considered to be in-compliance with 29 CFR 1915.97 if all the information requested in 1915.97(b) is included on a form or format that is accessible to the employees. Pre-approval of the form to be used is not necessary for employee safety.**
- 4. Employers who are covered by 29 CFR 1910.1200 and who are using the OSHA Form 20 are responsible for reviewing the form(s) to determine that all information required by the HCS is provided on the form(s).**

OSHA Instruction STP 2-1.125

MAR 3 1986

Office of State Programs

Subject: Hazard Communication; Interpretation Regarding Lubricating Oils

A. Purpose. This instruction describes a Federal Program change to the Regions and State designees.

B. Scope. This instruction applies OSHA-wide.

C. Reference.

1. OSHA Instruction STP 2-1.113A, July 1, 1985.

2. OSHA Instruction STP 2-1.123, January 21, 1986.

D. Federal Program Change. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this instruction is forwarded to each State designee.

2. Provide a copy of the Federal Register notice to the State designee upon request.

3. Explain the technical content to the Federal Register notice at 50 FR51852, December 20, 1985, Hazard Communication; Interpretation Regarding Lubricating Oils, to the State designee upon request.

4. Ensure that each State designee acknowledges receipt of this instruction in writing, within 30 days of notification, to the Regional Administrator. The acknowledgment should include (a) the State's plan to adopt and implement the standard interpretation, (b) the State's plan to develop an alternative interpretation, which is as effective, or (c) the reasons why no interpretation is necessary to maintain a program which is as effective.

5. Review policies, instructions and guidelines issued by the State to determine that this interpretation has been communicated to State program personnel. Routine monitoring shall also be used to determine if this interpretation has been implemented in actual performance.

E. Explanation.

1. Hazard Communication; Interpretation Regarding Lubricating Oils, was published at 50 FR 51852, December 20, 1985. The Hazard Communication Standard, codified at 29 CFR 1910.1200, requires chemical manufacturers and importers to evaluate the hazards of the chemicals they produce or import, and all employers in the manufacturing sector to transmit such hazard information to their employees by means of labels on containers, material safety data sheets, and employee training programs.

2. The requirements for evaluation of the hazards of chemicals under the rule are primarily performance-oriented. This performance-oriented approach is amply supported by the rulemaking record, and was recently upheld by the U.S. Court of Appeals for the Third Circuit.

3. OSHA received a number of inquiries in recent months regarding the application of the Hazard Communication Standard to lubricating oils. In particular, manufacturers and users of such oils raised specific questions regarding the interpretation of data related to carcinogenicity as published in Volume 33 of the International Agency for Research on Cancer (IARC) monographs. The Hazard Communication Standard requires use of the monographs to determine the carcinogenicity of chemicals. In Volume 33, IARC identified oils by the refining processes to which they were subjected. The questions raised concerned the establishment of process parameters for naphthenic oils subjected to hydrotreating. This notice provides OSHA's interpretation regarding the process conditions to be considered as mild hydrotreatment of naphthenic oils.

OSHA Instruction STP 2-1.133

DEC 22 1986
Office of State Programs

Subject: Hazard Communication; Definition of Trade Secret and Disclosure of Trade Secrets to Employees, Designated Representatives and Nurses

A. Purpose. This instruction describes a Federal Program change to the Regions and State designees.

B. Scope. This instruction applies OSHA-wide.

C. Reference.

1. OSHA Instruction STP 2-1.113A, July 1, 1985.

2. OSHA Instruction STP 2-1.125, March 3, 1986.

D. Cancellation. OSHA Instruction STP 2-1.123, January 21, 1986, Hazard Communication; Interim Final Rule and Corrections

E. Federal Program Change. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this instruction is forwarded to each State designee.

2. Provide a copy of the Federal Register notice to the State designee upon request.

3. Explain the technical content of the Federal Register notice at 51 FR 34590, September 30, 1986, Hazard Communication; Definition of Trade Secret and Disclosure of Trade Secrets to Employees, Designated Representatives and Nurses, to the State designee upon request.

4. Ensure that each State designee acknowledges receipt of this instruction in writing, within 30 days of notification, to the Regional Administrator. The acknowledgment should include (a) the State's plan to adopt and implement the standard amendment, (b) the State's plan to develop an alternative amendment, which is as effective, or (c) the reasons why no change is necessary to maintain a program which is as effective.

5. Inform each State designee that the State must modify the State's standard to ensure that it remains at least as effective as OSHA's modified Hazard Communication Standard (HCS) 29 CFR 1910.1200, and submit a plan supplement within 6 months of the date of Federal publication.

F. Different State Standards. Section 18(c)(2) of the OSH Act requires that State standards be "at least as effective" as the Federal and, when applicable to products used or distributed in interstate commerce, be required by compelling local conditions and not unduly burden interstate commerce. In addition this "product clause test" will be applied to State standards with substantively different requirements from the comparable Federal standards, as discussed in OSHA Instruction STP 2-1.117.

G. Explanation.

1. On November 27, 1985, 50 FR 48750, OSHA adopted as an interim final rule, amendments to the hazard communication standard which modified the trade secret definition and access provisions of the standard and corrected two typographical errors to the Hazard Communication Standard. States were notified of the requirements for adopting the interim final rule and typographical corrections by OSHA Instruction STP 2-1.123, January 1986, which is canceled by this instruction.

2. Hazard Communication; Definition of Trade Secret and Disclosure of Trade Secrets to Employees, Designated Representatives and Nurses, was published at 51 FR 34590, September 30, 1986. This document adopts the interim provisions as final, except for one change which is noted below.

OSHA Instruction STP 2-1.133 (cont.)

3. On May 24, 1985, the U.S. Court of Appeals for the Third Circuit upheld the challenges to the HCS trade secret definition on the grounds that it was broader than State law, and to the trade secret access provisions insofar as they limited trade secret access to health professionals.
4. The Court directed the Agency to: (1) reconsider a trade secret definition which would not provide trade secret protection to chemical identity information that is readily discoverable through reverse engineering; and, (2) adopt provisions permitting employees and their collective bargaining representatives access to trade secrets.
5. This final rule implements the Court decision by adopting, after public comment, a trade secret definition that does not protect chemical identity information that is readily discoverable through reverse engineering and by adopting provisions that permit employees and their designated representatives access to trade secrets.
6. This rule permits occupational health nurses access to trade secrets. Additionally, OSHA is promulgating a new Appendix D that ensures that the trade secret definition is interpreted and applied in accordance with State law and the public is fully apprised of the factors and principles considered when determining whether business information is a trade secret. The one modification made to these provisions was to delete the last paragraph of Appendix D as published in the interim rule. This paragraph dealt with information that is not a trade secret, and therefore was not relevant to the trade secret rule.
7. The final rule is effective on September 30, 1986. The nurses' access provisions are applicable October 30, 1986.

RECORD ID 46

STANDARD NUMBER 1910.1200(g)(3)
INFORMATION DATE 871009

ABSTRACT This interpretation provides clarification of the thoroughness manufacturers must achieve when preparing Material Safety Data Sheets(MSDS) under the Hazard Communication Standard (HCS), 1910.1200(g)(3). When preparing an MSDS; chemical manufacturers, importers, and employers must include explanatory statements in blank sections. However, blocks or sections may be omitted in their entirety if information is unavailable or non-existent.

INTERPRETATION 29 CFR 1910.1200(g)(3)

OCT 9, 1987

MEMORANDUM FOR: REGIONAL ADMINISTRATORS

SUBJECT: Clarification of Material Safety Data Sheet Requirements under the Hazard Communication Standard

The following clarification relates to the Material Safety Data Sheet (MSDS) requirements of the Hazard Communication Standard (HCS), reference 29 CFR 1910.1200.

Paragraph (g)(3) of the standard requires that when preparing an MSDS chemical manufacturers, importers and employers include explanatory statements in blank sections. Accordingly, preparers must indicate in any blank sections that the information requested is inapplicable or unavailable.

The duty imposed under HCS paragraph (g)(3) has raised the question of whether or not a preparer can exclude a block from the MSDS rather than provide an explanatory note.

Based on an interpretive reading of the standard, blocks or sections may be omitted in their entirety if information is unavailable or non-existent.

RECORD ID 1564

STANDARD NUMBER 1910.1200(b)(6)(vii)
INFORMATION DATE 871102

ABSTRACT Material Safety Data Sheets (MSDS) would not need to be supplied with oil lubricated compressors because compressors would be considered exempt from the standard's coverage. In addition, an MSDS would not be required for the compressed air, as it is not suitable for breathing.

INTERPRETATION 29 CFR 1910.1200(b)(6)(vii)

NOV 2, 1987

This is in response to your letter concerning the need to supply a material safety data sheet on an oil-lubricated compressor. Your letter was referred to this office for reply.

Such compressors are considered exempt from the standard's coverage and thus require no material safety data sheet. Leakage of oil from the compressor is not anticipated.

As a material safety data sheet is not required for the compressor and your manuals state the compressed air is not suitable for breathing, a material safety data sheet is not required for the compressed air mixture, either.

RECORD ID 1569

STANDARD NUMBER 1910.1200(f)(1)
INFORMATION DATE 860702

ABSTRACT The intent of the Hazard Communication Standard is met as long as labels on shipments of palletized bags are immediately visible to employees who may be potentially exposed to the hazardous chemicals. Often, the placement of a label depends on the packaging. It is especially important that labels be highly visible when they contain special instructions and descriptions of a hazardous substance (e.g., regarding its flammability, sensitivity to shock).

INTERPRETATION 29 CFR 1910.1200(f)(1)

JUL 2, 1986

This is in response to your letter of May 29 concerning the labeling requirements of the Hazard Communication Standard (HCS), 29 CFR 190.1200.

Your letter raises questions about the visibility of labels on shipments of palletized bags. The purpose of a label is to provide an immediate visual warning to employees before a potential exposure to the products contents occur. Additionally, the label identity serves as a point of cross reference with the material safety data sheet.

The standard's intent is met as long as the placement of the label permits it to be seen before employees are potentially exposed to the hazardous chemical. If for instance the product is flammable or shock sensitive then the label warnings must be visible before handling, so that special care if necessary, can be taken. On the other hand, for a product that only presents a toxicity hazard when a bag is opened then a label that is visible when the bag is readied for opening is acceptable.

As you can see proper placement of labels is dependent on a product characteristics and the ways and means employees may be exposed to them. Labeling therefore must be considered on a case by case basis. Obviously however, the more visible a label the better the chance that it will be effective.

SOURCE LETTER

May 29, 1986

I discussed today with Mr. X the labeling requirements of the OSHA Hazard Communication Standard. We manufacture sodium carbonate and ships it both in bulk and bagged form. On the bags all of the printed information is on one side, including the hazard statement and first-aid information.

Recently one of the distributors that we sell bagged sodium carbonate to on pallets was visiting one of his customers to whom he resells our soda ash (in the same bags and on the same pallets). There is shrink-wrap around the bags on the pallets to hold them in place. Due to the nature of automatic palletizing equipment, the bags of sodium carbonate are placed on the pallet face down. Therefore the printed information, including the hazard statement, is not visible on any of the bags until the shrink wrap is removed and a bag is turned over.

An OSHA inspector happened to be at the location of the customer of our distributor. The inspector told the customer that the bags were not labeled properly since the hazard warning was not visible when the pallet was in an intact condition -- that is, with the shrink-wrap around it. There was not a question as to the content of the hazard warning. Apparently the inspector feels that additional labeling should be on each bag or on the wrapping of the pallet. Our customer has canceled their orders from us.

Sodium carbonate does not have a significant health hazard except for being an irritant in Certain Situations. In my discussion he said that recently questions had arisen on the same issue. His initial

interpretation was that due to the low degree of hazard of sodium carbonate, we were in compliance with HCS.

I would appreciate a written interpretation as soon as possible on this labeling issue so that we can give a satisfactory answer to our customer and also be in full compliance with the Standard.

RECORD ID 1572

STANDARD NUMBER 1910.1200(d)(6)
INFORMATION DATE 860312

ABSTRACT Hazard evaluation is a process that relies heavily on the professional judgment of the evaluator. Employers must describe in writing the procedures they use to determine the hazards of any chemical they evaluate. If it is determined that a hazard does not exist, i.e., the material is not a hazardous chemical under (c), Definitions, then the labeling and material safety data sheet requirements do not apply.

INTERPRETATION 29 CFR 1910.1200(d)(6)

(No date provided.)

This letter is in reference to our previous telephone conversation on March 12 regarding hazard evaluation.

Hazard evaluation is a process which relies heavily on the professional judgment of the evaluator. Employers evaluating chemicals shall describe in writing the procedures they used to determine the hazards of the chemical they evaluate. If a determination has been made that a hazard does not exist, then the labeling and material safety data sheet requirements will not apply.

RECORD ID

4363

STANDARD NUMBER
INFORMATION DATE

1910.1200(c); 1910.1200(f)(3)
910515

ABSTRACT

OSHA does not require hazardous warning labels on outer shipping containers, but only on containers actually holding hazardous chemicals. Lack of an outer shipping label may pose a hazard to an employee working near and attempting to clean up a spill from such a container, but the limited interpretation of the meaning of "container" is viewed as the most enforceable, given the language of the Hazard Communication Standard (HCS). "Container" is defined in the HCS as the vessel or the like that contains a hazardous chemical, and not as something that holds a container or containers of hazardous chemical(s). The HCS states that containers of hazardous chemicals leaving a workplace are to be labeled in a way that does not conflict with the requirements of the Department of Transportation's Hazardous Materials Transportation Act.

INTERPRETATION

29 CFR 1910.1200(c); 1910.1200(f)(3)

MAY 15, 1991

MEMORANDUM

SUBJECT: Outer Shipping Container Labeling under The HCS, 29 CFR 1910.1200

This is in response to your memo of December 12, 1990, to MR. C., requesting a review of an interpretation made by this office on container labeling requirements under the Hazard Communication Standard (HCS), 29 CFR 1910.1200. The Office of Field Programs forwarded your memo to us January 29, 1991, and asked us to respond to you directly.

At issue is our letter of November 9, 1990, to Mr. B., General Services Administration, Region (A). This letter stated OSHA's policy with regard to outside (shipping) container labeling as enforceable under the HCS, namely, that "there is no OSHA requirement for hazardous warning labels on the outer shipping container" but only on the actual container holding the hazardous chemical. Your memo expressed "great concern" that this interpretation may be contrary to the purpose of a label required under the HCS, which is to "serve as an immediate visual warning of the chemical hazards in the workplace."

As you are aware, subsequent to your memo of December 12, a Hazard Communication briefing session was held at the OSHA Training Institute (January 23-24) for all Regional Hazard Communication Coordinators. This issue was, at that time, discussed at length. While we agree with your concern that the lack of an outer shipping label may pose a hazard to employees working near and attempting to clean-up the spill from unlabeled leaking shipping containers, we nevertheless feel ours is the most enforceable interpretation that could be made, given the language of the HCS. "Container" is defined in the HCS as the vessel "or the like that contains a hazardous chemical" not something that holds a container or containers of hazardous chemical(s).

Additionally, if a shipping container held several hazardous chemicals, it is unclear what would be required, under the HCS, as the "appropriate hazard warning." Would a warning be required for each different container inside? Would a hazard analysis be required to determine an "appropriate hazard warning" for chemicals, which, if spilled or leaked, could present a combined or synergistic effect or hazard? These issues were addressed in detail during the recent briefing session; it was determined that the most preferred method for OSHA to enforce an outer shipping label requirement would be by amending the standard to specifically require this change.

Further, the Department of Transportation has enforcement authority over the labeling of outside shipping containers. The HCS specifically states that containers of hazardous chemicals leaving the workplace are to be labeled in such a way that does not conflict with the requirements of DOT's Hazardous Materials Transportation Act. DOT has recently revised its Hazardous Materials Regulations ("HMR," 49 CFR parts 171-180) with respect to what they refer to as "hazard communication requirements" (shipping paper descriptions, marking and labeling of packages, placarding of vehicles and bulk packaging, and

emergency response communication) and classification and packaging requirements (see Federal Register, December 21, 1990, Vol. 55, No. 246, pgs. 52402-52729). These new regulations become effective October 1, 1991, after which time the Department will be enforcing both the old and newly revised requirements, which are to be phased in over a five-year period.

If during a workplace inspection OSHA compliance personnel find that the chemical manufacturer is not labeling the outside shipping container, a referral should be made to the Research and Special Programs Administration of the DOT at the following address:

Department of Transportation - RSPA
Office of Hazardous Materials Transportation
Enforcement Division
400 Seventh Street, S.W.
Washington, D.C. 20590-0001
Telephone: (202) 366-4700

While we agree with Region (B)'s comment concerning the intent of the HCS (to supply as much information to potentially exposed employees as possible), our interpretation of this provision is consistent with the plain meaning of the standard. The field is free to encourage employers to exceed the basic requirements of the HCS and maximize the exchange of workplace hazard information by labeling shipping containers, again, in such a way that does not conflict with applicable DOT requirements.

JAN 29, 1991

MEMORANDUM

SUBJECT: OSHA Requirements For Hazardous Warning Labels On Outer Shipping Containers Under 29 CFR 1910.1200

The attached memorandum from Region (B) suggests that it may be appropriate to review a recent interpretation from your office regarding the Hazard Communication Standard container labeling requirements. Please consider the region's concern and respond to them, through this office, with your decision.

Thank you for your cooperation.

Attachments

SOURCE LETTERS

December 12, 1990

MEMORANDUM

SUBJECT: OSHA Requirements for Hazardous Warning Labels on Outer Shipping Containers Under 29 CFR 1910.1200

This is in regard to a November 9, 1990, Compliance Programs interpretation to Mr. B., General Services Administration, Region 9, relative to OSHA container labeling requirements under the Hazard Communication Standard (HCS), 29 CFR 1910.1200.

In this letter, Compliance Programs concurs with an interpretation by Ms. M of OSHA's Training Institute that "there is no OSHA requirement for hazardous warning labels on the outer shipping container." While the stated purpose of the label, according to the HCS, is to "serve as an immediate visual warning of the chemical hazards in the workplace," we have great concerns that the resulting lack of hazard information on, for example, the outer shipping container of a leaking inner container of a hazardous substance that is "known to be present" in the workplace, poses a hazard with significant potential for chemical injury or illness to employees attempting to clean up the spill.

While enforcement of hazardous chemical labels may indeed be limited to the actual container holding the hazardous substance, we suggest that a review of this interpretation may be appropriate given the intent of the regulation.

Attachment:

NOV 9, 1990

Dear Mr. B.:

Thank you for your letter of October 24, regarding interpretation of the Occupational Safety and Health Administration's (OSHA) container labeling requirements under the Hazard Communication Standard (HCS), 29 CFR 1910.1200(f).

Your letter presents the following interpretation which you received from Ms. M of OSHA's Training Institute regarding this issue:

The Occupational Safety and Health Administration does not regulate the outer shipping container of hazardous material. The hazard warning labeling requirement is only enforced and limited to the actual container holding the hazardous substance, e.g., bottle, tube, can, jar. There is no OSHA requirement for hazardous warning labels on the outer shipping container.

We concur with this interpretation, but would like to stress that if the shipping container itself is the "actual container holding the hazardous substance" then it would have to be labeled in accordance with the requirements of the HCS. Further, section (f)(3) of the standard requires that:

Chemical manufacturers, importers, or distributors shall ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged, or marked in accordance with this section in a manner that does not conflict with the requirements of the Hazardous Materials Transportation Act (U.S.C. 1801 et seq.) and regulations issued under the Act by the Department of Transportation.

If the shipping container is the actual container holding the hazardous chemical, it would have to be labeled in accordance with the HCS, but labeled in such a way that the "appropriate hazard warning" did not interfere with any DOT required shipping labels or container shipping information.

We hope this clarifies this issue for you. For your further reference, we are enclosing a copy of OSHA's recently revised compliance instruction, CPL 2-2.38C, "Inspection Procedures for the Hazard Communication Standard," (issued October 22, 1990). This document contains interpretative language and guidance on OSHA policies and procedures for compliance with the requirements of this performance-oriented standard. We hope this information is useful to you. Please feel free to contact us again if we can be of further assistance.

October 24, 1990

Dear Ms. C:

This is to request your assistance in interpreting CFR 29 1910.1200 (f), Labels and Other Forms of Warning. Our Safety Officer has been in contact with your associates at the OSHA Technical Institute in (City, State). Ms. M informed us that her interpretation of this regulation, after discussion with your office, is the following:

The Occupational Safety and Health Administration does not regulate the outer shipping container of hazardous material. The hazard warning labeling requirement is only enforced and limited to the actual container holding the hazardous substance, e.g., bottle, tube, can, jar. There is no OSHA requirement for hazardous warning labels on the outer shipping container.

If you concur and find this to be factual, please forward your interpretation in writing to this office. This supportive document will be of tremendous value in resolving General Services Administration contractual, procurement, and shipping discrepancies.

RECORD ID (3)328

STANDARD NUMBER 1910.1200(d)(5); 1910.1200(d)(4); 1910.1000
INFORMATION DATE 860307

ABSTRACT A letter about the necessity of labeling of Methylene Chloride as a carcinogen. Methylene Chloride has been shown through established scientific studies to be a suspect carcinogen. However, since the chemical is not listed as a carcinogen by IARC or the NTP, labeling requirements are not necessary.

INTERPRETATION 29 CFR 1910.1200(d)(5); 1910.1200(d)(4); 1910.1000

MAR 7, 1986

Thank you for your letter dated January 28 in regards to the Hazard Communication Standard. Please accept my apology for the delay in response. The overwhelming number of letters and telephone calls regarding the Hazard Communication Standard has caused unavoidable delays in responding to the public's concerns.

Methylene chloride has been shown through established scientific studies to be a suspect carcinogen. However, since the chemical is not listed as a carcinogen by IARC or the NTP, labeling is not listed as a carcinogen by IARC or the NTP, labeling requirements are not necessary.

Material safety data sheets are required to be prepared if the chemical has been determined to be a health hazard and comprises 1% or greater of the composition, except that chemicals identified as carcinogens shall be listed if the concentrations are 0.1 % or greater.

The material safety data sheet must provide a health hazard description of the chemical based on the positive studies of carcinogenicity for methylene chloride. The material safety data sheet must state the studies have indicated that it is a suspect carcinogen.

APPLICABILITY OF 29 CFR 1910.1200 TO TYPEWRITER AND PRINTER RIBBONS CONTAINING LOW LEVELS OF METHYLENE CHLORIDE

SOURCE LETTER

We currently manufacture a typewriter/printer ribbon that uses methylene chloride in one of the manufacturing processes. Because of the nature of the process, a small amount of residual methylene chloride remains in the ribbon as it is shipped to customers. Currently, the level of methylene chloride in each ribbon is less than 0.1% by weight.

In order to make our manufacturing process more efficient, we are contemplating a change that would raise the residual methylene chloride to a maximum of 0.5% by weight. Extensive airborne monitoring has been performed on typewriters and printers using ribbons with 0.5% to 1% residual methylene chloride. Even under the most extraordinary operating conditions, the highest level of methylene chloride measured at or around the machine is only 0.12 PPM. This is over 4000 times below the current OSHA Permissible Exposure Limit of 500 PPM. Although there have been conflicting studies about the carcinogenicity of methylene chloride, neither IARC nor the latest NTP Annual Report list it as a carcinogen. Since the ribbon is enclosed in a cassette cartridge, this eliminates the need for dermal contact during normal use. Using any of the available exposure criteria for this solvent, we have concluded that there is no inhalation or dermal hazard associated with this ribbon.

In light of the requirements of 29CFR 1910.1200, we would like to market this ribbon with a maximum of 0.5% residual methylene chloride without a warning label or Material Safety Data Sheet. We would appreciate your review of our conclusion to ensure that it meets the intent of the Hazard Communication Standard.

RECORD ID

4368

STANDARD NUMBER
INFORMATION DATE1910.1200(a)(2); (d)(4); (f)(1)(ii); (f)(4); 1910.1000
910520

ABSTRACT

The Directorate of Health Standards Programs reviewed the available scientific literature for health effects associated with exposure to fibrous glass products. Several epidemiological studies of fibrous-glass production workers showed a statistically significant increase in respiratory tract cancer. Therefore, hazard warnings on fibrous glass products need to indicate that fibrous glass may cause lung cancer in humans. The existence of positive human evidence, based on one valid study conducted in accordance with established scientific principles indicating carcinogenic effects in humans, triggers the OSHA requirement that a product label contain an appropriate carcinogen hazard warning. It is the responsibility of the chemical manufacturer or importer of a product to identify and evaluate all relevant scientific data when conducting a hazard determination. If an OSHA Compliance Officer becomes aware of incorrectly labeled fibrous glass products being used in the workplace, the chemical manufacturer will be contacted and asked to correct the labels.

INTERPRETATION

29 CFR 1910.1910.1200(a)(2); (d)(4); (f)(1)(ii); (f)(4); 1910.1000

MAY 20, 1991

MEMORANDUM**SUBJECT: Fibrous Glass Products Labeling under The HCS**

Attached, for your information and reference, is a letter recently sent to Mr. M, Chairman, Victims of Fiberglass, from Mr. S., Assistant Secretary regarding the Agency's position on the requirement that fibrous glass products be labeled as potential human carcinogens under the Hazard Communication standard. We believe you will find the letter to be self-explanatory.

Also attached, for your own internal review, is the memorandum sent to the Office of Health Compliance Assistance from the Directorate of Health Standards Programs on this issue. Health standards, at our request, reviewed the available scientific literature on this issue and provided us with the attached overview of the available epidemiological studies, which may be useful to you and serve as a further reference on this subject. Please ensure that your Hazard Communication Coordinators and State Plan Designees receive these materials.

Attachments:

MAY 6, 1991

Dear Mr. M:

This is in further response to your letters of February 15, addressed to both myself and Mr. D, Deputy Secretary of Labor, regarding the labeling requirements of the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS), 29 CFR 1910.1200. As I mentioned in my interim response to you of March 13, Mr. D had provided me with a copy of your letter to him and asked that I respond to you directly. We are also in receipt of your letter and supporting documentation to OSHA's (CITY, STATE), Area Director, Mr. V, of January 9. This letter will also respond to the similar concerns you raised in that correspondence.

OSHA's policy regarding the labeling of hazardous chemicals for carcinogenic effects is discussed at length in the Agency's Compliance Instruction for the Hazard Communication Standard, CPL 2-2.38C ("Inspection Procedures for the Hazard Communication Standard," October 22, 1990, copy enclosed). As you have correctly stated in your letter to us, the existence of positive human evidence, based on one valid study conducted in accordance with established scientific principles indicating carcinogenic effects in humans triggers the requirement that the label contain an appropriate carcinogen hazard warning. It is

the responsibility of the chemical manufacturer or importer of a product to identify and evaluate all relevant scientific data when conducting a hazard determination.

A review of the available scientific literature for health effects associated with exposure to fibrous glass products was conducted by our Directorate of Health Standards Programs. Several epidemiological studies of fibrous glass production workers were found which showed a statistically significant increase in respiratory tract cancer. Therefore, appropriate hazard warnings on fibrous glass products would have to indicate that fibrous glass may cause lung cancer in humans.

A copy of this letter to you will be sent to each of OSHA's Regional Offices and included on OSHA's Computerized Information System (OCIS), the Standards Interpretation File, so that our compliance staff will be informed of and have access to this interpretation regarding the requirement of chemical manufacturers and importers, under the HCS, to positively label fibrous glass products with a carcinogen warning label. If, upon inspection, an OSHA Compliance Officer becomes aware of incorrectly labeled fibrous glass products being used in the workplace, according to OSHA referral procedures, the chemical manufacturer will be contacted and asked to correct the hazard. Referral procedures for the abatement of incorrect labels are set forth in section K.7.a.(7) of the enclosed OSHA Instruction for your information and reference.

We hope this response sufficiently addresses the concerns you raised. Please feel free to contact us again if we can be of further assistance.

Enclosure:

MAR 13 1991

Dear Mr. M:

Thank you for your letter of February 15, addressed to Mr. D, Deputy Secretary of Labor, regarding the labeling requirements of the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS), 29 CFR 1910.1200. Mr. D has provided me with a copy of that letter and asked that I respond to you directly.

We note that your letter to Mr. D was also included with your letter to me, and was also dated February 15. On March 6, I sent you an interim response to the letter addressed to my attention. As noted in that letter, we are in the process of gathering information on the issues you raised and will be providing you with a detailed reply shortly.

SOURCE LETTERS

February 15, 1991

Dear Secretary D:

Respiratory cancer rates (trachea, bronchus and lung) from occupational exposure to fiberglass mineral wool have now CLIMBED into the statistically significant classification according to the enclosed scientific study entitled: MORTALITY AMONG A COHORT OF U.S. MAN-MADE MINERAL FIBER WORKERS; 1985 FOLLOW-UP. 497 LUNG CANCER DEATHS (228 FROM 1 PLANT) HAVE BEEN REPORTED IN THE COHORT ANALYSIS TO DATE.

These statistically significant lung cancer excesses (including all malignant neoplasms) were first reported to OSHA by the International Agency for Research on Cancer (IARC) in 1988 (Page 140, IARC Monographs, Volume 43 enclosed). (COMPANY) and other fiberglass manufacturers have been in violation of OSHA'S Hazard Communication Law 29 CFR 1910.1200 for failure to include this human cancer data on their Material Safety Data Sheets and fiberglass product labels.

Mr. Secretary, (Association) (the same wonderful people who brought the world asbestos insulation) are paying to have the enclosed study "rigged" by reaching back to pre-1960 microfiber production exposure statistics to dilute the death statistics, and by having its principal investigator, Dr. M, Ph.d. (see Page 598) drop all comparisons with U.S.A. cancer statistics, further minimizing the impact of the study. Respected scientists in this field know that "local" lung cancer rates around all U.S.A. MMMF plants (22) are elevated

from secondary DOWN WIND exposures. The use of these "local" SMR comparisons (which are less steep than national statistics) serve to dilute the worker cancer statistics and water down the significance of the cohort analysis.

OSHA Hazard Communication Standards require manufacturers to publish STATISTICALLY SIGNIFICANT human carcinogenicity data on their product labels. Americans have the RIGHT TO KNOW!! This STATISTICALLY SIGNIFICANT human cancer data has been concealed by (Association)'s members from the general public since 1981. This intolerable violation of the Hazard Communication Standard must be rectified with appropriate action by OSHA.

MAR 3 1987

Dear Dr. L:

This is in response to your letter of February 3, concerning the coverage of fibrous materials under the Hazard Communication Standard.

The Hazard Communication Standard requires chemical manufacturers and importers to evaluate the chemicals produced in their workplace or imported by them to determine if they are hazardous. If the required hazard determination indicates that a chemical is hazardous, that information must be transmitted to affected employers and employees within the manufacturing sector. The material safety data sheet is the primary vehicle for transmitting the hazard information.

There are two avenues to be pursued in the determination of whether a chemical is carcinogenic according to the Hazard Communication Standard. The first is whether the chemical in question is part of the "floor" of carcinogens as defined in the standard.

Chemical manufacturers, importers and employers evaluating chemicals are required by the standard to treat the following sources as establishing that a chemical is a carcinogen or potential carcinogen for hazard communication purposes:

- (1) National Toxicology Program (NTP), Annual Report on Carcinogens (latest edition);
- (2) International Agency for Research on Cancer (IARC) Monographs (latest editions); or
- (3) 29 CFR Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration.

Second, in the case of a chemical which has not been listed by one of the above sources, a chemical manufacturer or importer must consider all scientific evidence available for that chemical. Statistically significant results of any one positive study which is designed and conducted according to established scientific principles regarding the health effects of a chemical would be sufficient basis for reporting the findings on a material safety data sheet. Further, if such studies include positive human evidence of carcinogenicity then the label must contain a hazard warning for carcinogenicity.

In summary, studies such as the one enclosed to your letter, which indicate a health effect from man-made mineral fibers, would have to be reported on a material safety data sheet.

If you need further assistance, please feel free to contact me again.

RECORD ID 1580

STANDARD NUMBER 1910.1200(d)(3)(ii); 1910.1000
INFORMATION DATE 871207

ABSTRACT Wood dust satisfies the definition of a hazardous substance under the Hazard Communication Standard because it is listed in table Z-1-A of 1910.1000, and is therefore subject to the requirements of the rule, including the provisions for material safety data sheets, labeling and training.

INTERPRETATION 29 CFR 1910.1910.1200(d)(3)(ii); 1910.1000

SUBJECT: Coverage of Wood Dust Under The Hazard Communication Standard (HCS)

On September 9, 1986, a memo concerning the coverage of wood dust under the HCS was sent to you. The memo established the agency's position concerning citations for wood dust. Briefly, the memo stated that citations for wood dust under the HCS would not be issued because the standard and preamble could not support such citations.

The preamble to the expanded rule, page 31863, published on August 24 states that OSHA never intended to exclude wood dust from the standard's coverage under wood and wood products. In addition, the preamble states, "wood dust is a recognized health hazard, with exposure limits recommended by the American Conference of Governmental Industrial Hygienists (ACGIH) to control employee exposure to the substance." Under the provisions of the HCS, this means that wood dust is to be considered a hazardous chemical (paragraph (d)(3)(ii)), and therefore subject to the requirements of the rule including material safety data sheets and training.

The agency believes that the language used in the preamble to the expanded rule satisfies the need for public notice, and thereby supports the coverage of wood dust. Effective immediately, wood is covered and appropriate enforcement actions shall proceed.

RECORD ID 1657

STANDARD NUMBER 1910.1200(g)(3)
INFORMATION DATE 880610

ABSTRACT The Material Safety Data sheet requirements under the Hazard Communication Standard do not require blocks or spaces for information that is not applicable or available for the substance involved. There is no specified format for the MSDS, only what shall be contained on them. If, however, a format is used which has a space addressing carcinogenicity or any other information required under the rule, it must not be left blank under any circumstances.

INTERPRETATION 29 CFR 1910.1200(g)(3)

JUN 10, 1988

MEMORANDUM

SUBJECT: MSDS Question

As you will recall, at the meeting the State inquired about the intent of the attached October 9, 1987, memorandum on Material Safety Data Sheets (MSDS) required under the Hazard Communication standard. The memorandum addressed whether a MSDS format must include blocks or spaces for information that is not applicable or available for the substance involved. This question had been raised particularly by manufacturers that use computer-generated MSDSs. It is customary to exclude fields on such MSDSs when there is no information.

The States thought that it was preferable to provide a "not applicable" notation in such blocks rather than to omit them from the form. In response to our request for clarification, the following information has been provided:

Since the standard is performance-oriented and not MSDS format s specified, employers are free to develop MSDSs that are designed for a specific chemical. For example, if an employer develops an MSDS for a chemical which is not a carcinogen, a space addressing carcinogenicity does not have to be provided on the form. This policy applies to any type of MSDS including computer-generated ones.

Of course, if a format is used which has a space addressing carcinogenicity or any other information required under the rule, it must not be left blank under any circumstances.

SOURCE LETTER

MEMORANDUM FOR: REGIONAL ADMINISTRATORS

SUBJECT: Clarification of Material Safety Data Sheet Requirements Under the Hazard Communication Standard.

The following clarification relates to the Material Safety Data Sheet (MSDS) requirements of the Hazard Communication Standard (HCS), reference 29 CFR 1910.1200.

Paragraph (g)(3) of the standard requires that chemical manufacturers, importers and employers preparing a MSDS include explanatory statements in blank sections. Accordingly, preparers must mark blank sections with any words that convey the idea that the information was not applicable or not available.

The duty imposed under paragraph (g)(3) of the HCS has raised the question of whether a preparer can simply exclude a block from the MSDS rather than making an explanatory note?

Based on an interpretive reading of the standard, blocks or sections may be omitted in their entirety if no information is available or non-existent.

RECORD ID 1697

STANDARD NUMBER 1910.1200(c); (Appendix A); (Appendix A)(7)
INFORMATION DATE 870917

ABSTRACT A response to an inquiry concerning the Hazard Communication Standard. Definitions were provided of: target organ, sources for determining target organ effects, and a definition of the hazards of chemicals.

INTERPRETATION 29 CFR 1910.1200(c); (Appendix A); (Appendix A)(7)

SEP 17, 1987

This is in response to your letter of July 21 concerning the Hazard Communication Standard, 29 CFR 1910.1200.

Question 1: Define target organs.

Answer:

As defined in Casarett and Doull's Toxicology, the Basic Science of Poisons, "Most chemicals that produce systemic toxicity do not cause a similar degree of toxicity in all organs but usually produce the major toxicity to one or two organs. These are referred to as target organs of toxicity for that chemical." Appendix A of the Hazard Communication Standard provides a target organ categorization of effects for chemicals which have been found to cause such effects. The examples given are presented to illustrate the range and diversity of effects and hazards but are not intended to be all-inclusive.

Question 2: After defining same, please advise where a manufacturer can obtain a list of target organs versus hazardous chemicals.

Answer:

As stated in our June 29 letter, Appendix C of the standard provides a list of available data sources which can be used to determine the target organ effects of chemicals.

Question 3: Define hazards of chemicals.

Answer:

The Hazard Communication Standard defines "hazardous chemical" to mean any chemical which is a physical or a health hazard.

"Physical hazard" means a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.

"Health hazard" means a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes. Appendix A provides further definitions and explanations of the scope of health hazards covered and Appendix B describes the criteria to be used to determine whether or not a chemical is to be considered hazardous for purposes of the standard.

RECORD ID 1700

STANDARD NUMBER 1910.1200(b)(6)(i)
INFORMATION DATE 880817

ABSTRACT Hazardous waste samples sent to a laboratory for analysis are exempt from the Hazard Communication Standard. Because the laboratory analysis is part of the preparation for the disposal of the chemicals and the waste manifest accompanies the sample bottles to the laboratory, it would, therefore, still be considered hazardous waste.

INTERPRETATION 29 CFR 1910.1200(b)(6)(i)

AUG 17, 1988

This is in reply to your letter concerning the hazardous waste exemption of the Hazard Communication Standard as applied to samples of the waste sent to a laboratory for analysis.

Since the laboratory analysis is part of the preparation for the disposal of the chemicals and the waste manifest accompanies the sample bottles to the laboratory, it would, therefore, still be considered hazardous waste. Such samples would be exempted from coverage under the Hazard Communication Standard, if the waste is defined as a hazardous waste by the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, when subject to regulations issued under that Act by the Environmental Protection Agency.

RECORD ID

1727

**STANDARD NUMBER
INFORMATION DATE**

1910.1200(d)(3)(I); (d)(4); 1910.1000
860702

ABSTRACT

Under the Hazard Communication Standard, fingerprint powders containing carbon black would be considered a hazardous chemical since carbon black does have an OSHA PEL and is also listed by ACGIH as having a TLV. A chemical manufacturer or importer would have to indicate the results of IARC carcinogen studies on the material safety data sheet. A cancer warning on the product's label would not be required.

INTERPRETATION

29 CFR 1910.1200(d)(3)(I); (d)(4); 1910.1000

JUL 2, 1986

Your letters dated April 22 and May 5 have been forwarded to our office for response. Mr. A has informed us of your concern regarding the health hazards of your fingerprint powders containing carbon black.

The Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS) requires chemical manufacturers and importers to evaluate chemicals produced in their workplace or imported by them to determine if they are hazardous. Any chemical for which OSHA has a permissible exposure limit (PEL) or the American Conference of Governmental Industrial Hygienist (ACGIH) has a threshold limit value (TLV) is automatically considered hazardous as part of the standards floor of chemicals.

Also, the following sources establish that a chemical is a carcinogen or potential carcinogen for hazard communication purposes:

- (i) National Toxicology Program (NTP), Annual Report on Carcinogen (latest editions);
- (ii) International Agency for Research on Cancer (IARC) Monographic (latest editions; or
- (iii) Those substances regulated as carcinogens under 29 CFR Part 1910, Subpart z, Toxic and Hazardous Substance, Occupational Safety and Health Administration.

In addition, for health hazards, evidence which is statistically significant and which is based on at least one positive study conducted in accordance with established scientific principles is sufficient for a notation to appear on the material safety data sheet.

Carbon black does have an OSHA PEL and is also listed by ACGIH. It is therefore automatically considered a "hazardous chemical" under the HCS and any associated health and/or physical hazard would have to be reported on the material safety data sheet.

According to IARC the available data on carbon blacks are inadequate to permit an evaluation of their carcinogenicity to experimental animals. However, there is sufficient evidence that solvent (benzene) extracts in most of the carbon blacks tested are carcinogenic to experimental animals. A chemical manufacturer or importer would have to indicate the results of such studies on the material safety data sheet. A cancer warning on the product's label would not be required since the available epidemiological data provides inadequate evidence to evaluate the carcinogenicity to humans of carbon blacks.

SOURCE LETTER

MAY 9, 1986

SUBJECT: Request for OSHA's Position Regarding Health Effects of Fingerprint Powder Containing Carbon Black

We have received the enclosed letters and package of information. An official OSHA interpretation of the health hazards of fingerprint powder containing carbon black (specifically whether or not carbon black is considered to be a suspect carcinogen) has been requested.

Information is the IARC Monograph, Volume 3, page 23, indicates that:

"The reported inability to induce cancer in mice by feeding carbon black ... or by applying it to the skin ... was overcome by administering solvent extracts by injection or by skin painting."

The monograph indicates that carbon black of the furnace - black type contains several polycyclic aromatic hydrocarbons (PAH). IARC Volume 33, page 77, indicates that, "The available epidemiological studies on workers in the carbon-black industry are largely uninformative". Regarding an evaluation of experimental animal carcinogenicity, the data on carbon blacks are inadequate. Volume 33 does state, however, that there is sufficient evidence that solvent (benzene) extracts of most of the carbon blacks tested are carcinogenic to experimental animals.

Exhibit G in the attachments, a study done by the Carbon Black Industry Committee for Environmental Health, presents evidence that the carbon black itself is not carcinogenic, and that the PAH's absorbed to carbon black are not biologically active.

Please also note that Exhibit I in the attachments is a letter dated July, 1983, which states that the designation of "suspect carcinogen" for carbon black was removed from the 1983 draft of the IHFOM (currently the Technical Manual).

RECORD ID 1757

STANDARD NUMBER 1910.1200(c); (f)(1)(ii); (f)(3); (Appendix A)
INFORMATION DATE 870629

ABSTRACT Interpretation concerning the Hazard Communication Standard's requirement for target organ effects on labels for shipped containers of hazardous chemicals. The first paragraph of 1910.1200 Appendix A combined with the definitions of health hazard and hazard warning (c) definitions make it clear that employees exposed to health hazards that may cause measurable changes in the body must be apprised of both the change in body function and the signs and symptoms that may occur to signal the changes. The label must list the hazard warnings properties.

INTERPRETATION 29 CFR 1910.1200(c); (f)(1)(ii); (f)(3); (Appendix A)

JUN 29, 1987

This is in response to your letter of April 14, concerning the Hazard Communication Standard's requirement for target organ effects on labels for shipped containers of hazardous chemicals.

The definition of "health hazard" located at 29 CFR 1910.1200(c) includes a reference to Appendix A, which provides further definitions and explanations of the scope of health hazards. Section 1910.1200(d), "Hazard determination," also, states that Appendix A is to be consulted for health hazards covered.

The first paragraph of Appendix A makes it clear that employees exposed to health hazards must be apprised of both the change in body function and the signs and symptoms that may occur to signal the changes. Appendix A includes a target organ categorization of health effects that may occur. Examples of signs and symptoms of exposure, as well as indications of substances which have been found to effect the target organs, are set forth at the end of Appendix A. The reference to the change in body function and to target organ effects in Appendix A makes it clear that "appropriate hazard warnings" for any given hazardous substances are those that warn about potential danger of significant risk. Appendix A, in referring to target organ effects, states that "these examples are presented to illustrate the range and diversity of effects and hazards found in the workplace, and the broad scope employers must consider in this are, but are not intended to be all-inclusive." Appendix C lists sources that employers may use to evaluate the hazards of chemicals they produce or import and the body parts that may be effected.

It is proper to look to the preamble for the administrative construction of the standard. The preamble accompanying and explaining the standard supports the target organ interpretation. In regard to the definition of "health hazard," the preamble states as follows (48 FR 53,295):

The definition for "health hazard" has been modified somewhat by including it the target organ classification of hazards that are proposed in Appendix A. This should clarify the required scope of hazards to be evaluated.

The preamble makes the following further comment under the hazard determination provision of 1910.1200(b) (48 FR 53,296):

The term "health hazard" was defined very broadly in the proposal as a "chemical which, upon exposure, may result in the occurrence of acute or chronic health effects in employees." This definition was further expanded upon by Appendix A, which included a discussion of the difficulty of defining health hazards, and a categorization of health effects according to target organ. Included in the categorization were examples of both the signs and symptoms of overexposure and some specific substances which may affect those target organs.

The "hazard warning" must convey the hazard of the chemical Appendix A of the standard makes it clear that employees must be apprised of the change in body function and the signs and symptoms that may occur to signal that change.

It is our position that when 1910.1200(f)(1)(ii) is read in conjunction with the definitions of 'hazard warning' and 'health hazard', set forth at 1910.1200(c), and the provisions for hazard determination set forth in 1910.1200(d), it is clear that the intent of the labeling requirement goes far beyond the effects must be included on the label is a reasonable interpretation of the 'appropriate hazard warning' requirement. OSHA feels that this interpretation is consistent with the underlying goal of the standard.

RECORD ID 1813

STANDARD NUMBER 1910.1200(b)(1); (b)(2); (b)(6)(vii)
INFORMATION DATE 890111

ABSTRACT

Raw oil and gas extracted from the ground represent naturally occurring substances. OSHA does not consider oil and gas producers to be "chemical manufacturers" of the crude oil or natural gas. They are, therefore, not required to develop MSDSs for these substances. As employers covered by the expanded standard oil and gas producers are, however, required to maintain copies of MSDS for each hazardous chemical accessible during each work shift to employees when they are in their work area(s).

INTERPRETATION 29 CFR 1910.1200(b)(1); (b)(2); (b)(6)(vii)

JAN 11, 1989

This is in response to your letter of June 15, 1987 regarding the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS), 29 CFR 1910.1200, and its requirements that material safety data sheets (MSDS) be available for all hazardous chemicals. I apologize for the delay in our response. OSHA agrees with your assertion that raw oil and gas extracted from the ground represent naturally occurring substances. In enforcing the current rule, OSHA does not consider oil and gas producers to be "chemical manufacturers" of the crude oil or natural gas. They are, therefore, not required to develop MSDS for these substances.

As employers covered by the expanded standard, which took effect for employers on August 1, 1987, oil and gas producers are, however, required to maintain copies of MSDS for each hazardous accessible during each work shift to employees when they are in their work area(s). Crude oil and natural gas meet the health hazards to exposed individuals. Therefore, oil and gas producers are required to have a material safety data sheet for these substances, as well as for all other hazardous chemicals at your job site.

Under the current rule, a "generic" MSDS may address a group of complex mixtures, such as crude oil or natural gas, which have similar hazards and characteristics because their chemical ingredients are essentially the same, even though the specific crude oil which you submitted with your letter seems to adequately address the MSDS requirements for crude oil, including its physical and health hazards. In addition, other MSDS may be obtained from the refineries that your members sell their products to. It is important to note that OSHA is undergoing rulemaking procedures to gather additional public comment and information regarding the Hazard Communication Standard's application to the association, the Independent Petroleum Association of America, participated in the process and, on December 14, 1987, testified determination on whether to modify the current rule on this or other issues as a result of the rulemaking record is presently expected in May 1989. Therefore, your members' obligations may be affected if changes are made to the standard.

RECORD ID 1860

STANDARD NUMBER 1910.1200(c); (d)(3); (f)(1)(i); 1910.1000
INFORMATION DATE 890717

ABSTRACT If industrial thermometers are expected to break during normal conditions of use, exposing employees to mercury, they are not considered articles for purposes of the HCS ((b)(2),(c) definitions). Under the labeling provisions of the HCS each thermometer container would have to be labeled, tagged, or marked with the required label information about its contents.

INTERPRETATION 29 CFR 11910.1200(c); (d)(3); (f)(1)(i); 1910.1000

JUL 17, 1989

MEMORANDUM

SUBJECT: Hazard Communication Standard (HCS) Labeling Requirements for Industrial Thermometers

This is in response to your memo of June 6, which forwarded a memo from the Area Office requesting an interpretation of the Hazard Communication Standard as it applies to labeling requirements for industrial thermometers.

If industrial thermometers are expected to break during normal conditions of use, exposing employees to mercury, they are not considered articles for purposes of the HCS. Under the labeling provisions of the HCS each thermometer container would have to be labeled, tagged, or marked with the required label information.

RECORD ID 1877

STANDARD NUMBER 1910.1200(b)(3)(ii)
INFORMATION DATE 890605

ABSTRACT The HCS addresses laboratories in a more limited fashion than it does other types of establishments. An employer is only required to maintain those MSDS that the supplier sends (per section (b)(3).) There is no affirmative obligation for a laboratory to request or otherwise procure data sheets.

INTERPRETATION 29 CFR 1910.1200(b)(3)(ii)

JUNE 5, 1989

This is in response to your letter of November 28, 1988, and a follow-up to your telephone conversation in which you requested an interpretation of the Hazard Communication Standard (HCS), 29 CFR 1910.1200, as it relates to laboratories and our requirements with respect to material safety data sheets (MSDS).

The HCS addresses laboratories in a more limited fashion than it does for other types of establishments. An employer is only required to maintain those MSDS which the supplier sends. There is no affirmative obligation for a laboratory to request or otherwise procure data sheets.

RECORD ID

1882

STANDARD NUMBER
INFORMATION DATE

1910.1200(g)(6); (g)(10); (h)(2)
890818

ABSTRACT

An interpretation letter discussing the requirements for downstream transmission of material safety data sheets (MSDSs). The OSHA HCS requires the furnishing of hard-copy MSDSs to the downstream employer who receives hazardous workplace chemicals. MSDSs may be kept in any form so long as the information is provided for each hazardous chemical and is readily accessible during each workshift to employees when they are in their work area(s). This may be accomplished through actual paper copies of the data sheets, or alternatively through computer terminal access or other means of providing readable copy on-site as long as it is readily accessible during each workshift to employees when they are in their work area(s).

INTERPRETATION

29 CFR 1910.1200(g)(6); (g)(10); (h)(2)

JUL 20, 1989

This is in response to your letters of March 27, February 8 and January 17 to Mr. S in the Office of Health Compliance Assistance of the Occupational Safety and Health Administration (OSHA), regarding requirements of the Hazard Communication Standard (HCS), 29 CFR 1910.1200, and downstream transmission of material safety data sheets (MSDSs). I apologize for the long delay in this response to you and hope that the following information will adequately address the concerns you raised.

You questioned whether the OSHA HCS requires the furnishing of hard-copy MSDSs to the downstream employer who receives hazardous workplace chemicals, "or if another means of furnishing MSDS information to that downstream employer is considered to be in compliance with the MSDS transmission requirements of the OSHA HCS." Attached to your most recent correspondence is a copy of a letter from our (City) Regional Office to Mr. S of (Company) in (City), (State). This letter stated that it was acceptable to utilize a microfiche program described in earlier correspondence from Mr. S to meet the intent of the MSDS transmission requirement of the HCS. The HCS states that MSDSs "may be kept in any form" (see 29 CFR 1910.1200 (g)(10)), so long as the required information is provided for each hazardous chemical and is "readily accessible during each workshift to employees when they are in their work area(s)." Ready accessibility means that the employee may easily read and refer to the information. This may be accomplished through actual paper copies of the data sheets, or alternatively through computer terminal access or other means of providing readable copy on-site.

In your January 17 letter, you requested clarification on the application of the HCS requirement at 1910.1200 (g)(6) that "distributors and employers are provided an appropriate material safety data sheet with their initial shipment, and with the first shipment after a material safety data sheet is updated." You asked specifically if the MSDS transmission requirement would be met in the following situations:

- (1) The distributor provides MSDSs via microfiche which can be read by the receiver of that microfiche using available microfiche readers.
- (2) The distributor provides MSDSs via microfiche which can be read by the receiver of that microfiche and printed on hard copy by that receiver using a microfiche printer.
- (3) The distributor notifies the receiver of the product that the MSDS is in its computer network and the receiver may utilize its existing computer equipment to obtain a readout or a printout of the MSDS.
- (4) The distributor notifies the receiver of the product that the MSDS is available via utilization of FAX equipment which the receiver has currently in operation.

If the distributor and the receiver have mutually agreed that microfiche, computer or FAX will be used for MSDS transmission and both the distributor and the receiver already have the equipment at their worksites, these methods may be used. The distributor cannot require downstream recipients of his MSDS to purchase or acquire machinery (computer, microfiche reader/printer, FAX or any other types of equipment) in order to be able to receive MSDS information, since it is the responsibility of the distributor to supply a MSDS with the initial shipment. However, if the two parties agree that such automated MSDS transmission will occur, both parties have the necessary equipment and the information on the MSDS will be readily available to the employees, then the use of this type of transmission would meet the requirement of the standard.

Since transmission of the MSDS must occur with the initial shipment and upon MSDS update, the distributor may not just inform the receiver that "an MSDS is available", he must actually send or transmit the MSDS to the receiver either with the shipment or prior to the shipment of the hazardous material(s), so that the information is readily available to employees at the receiver's work areas. As discussed above, this may occur electronically. Many larger plants have met the requirements of MSDS information transmission under the HCS by installing inplant terminals and ensuring the training of employees to be able to easily access the information. The requirement for adequate employee training to access the electronically available information is key to compliance with this provision as you propose it, and must be met in order to ensure ready access to the hazard information contained on the MSDS.

RECORD ID 1898

STANDARD NUMBER 1910.1200(b)(6)(vii); (d)(2); (d)(3); (d)(4)
INFORMATION DATE 860506

ABSTRACT No evidence was present in any of the papers cited by IARC that solvent refined naphthenic oils refined at any level of severity produced carcinogenic results in animal testing. Therefore no naphthenic oil which undergoes solvent refining will be regarded by OSHA as carcinogenic under the Hazard Communication Standard. The Viscosity Index of the base oil as it leaves the refinery stream must be greater than 76 before the finished oil can be exempt from the labelling requirements of the Hazard Communication Standard.

INTERPRETATION 29 CFR 1910.1200(b)(6)(vii); (d)(2); (d)(3); (d)(4)

MAY 6, 1986

This is in response to your letter of March 25, 1986 on the subject of criteria for severe solvent refinement under the Hazard Communication Standard.

Your letter raises two issues relevant to my first letter to you on this issue, dated March 19, 1986. Your first point is that the Halder paper referenced by IARC deals only with paraffinic distillates and thus should not apply to naphthenic oils. You are correct. Our review of the relevant sources demonstrates that no evidence was present in any of the papers cited by IARC that solvent refined naphthenic oils refined at any level of severity produced carcinogenic results in animal testing. Therefore no naphthenic oil which undergoes solvent refining will be regarded by OSHA as carcinogenic under the Hazard Communication Standard until or unless some study which is designed and conducted according to established scientific principles and which reports statistically significant conclusions regarding its health effects is performed. Because there are no positive carcinogenic results for solvent refined naphthenic distillates in the papers referenced by IARC, OSHA concludes that the statement in the IARC Monograph that mildly solvent refined oils are carcinogenic to experimental animals refers to mildly solvent refined paraffinic oils for which there are data, as you acknowledge, in the Halder paper.

Your second point is that Viscosity Index is not an appropriate index to severity of refinement. However, Halder chose to regard it as significant and IARC appeared to rely on his judgment. One of several statements to this effect in the Halder report is on page 267 of that report and states, "The VI is inversely related to the amount of cycloparaffins and aromatic hydrocarbons remaining in an oil and reflects the severity to which the lubricating oil distillates were solvent extracted." Thus, since OSHA relies on the IARC Monograph and the papers upon which it is based, we are forced to conclude that, in the case of paraffinic oils, Viscosity Index is indeed an appropriate measure of severity of refinement.

There are two points, however, about which we believe a modification of our previous interpretation is called for, both of which refer to paraffinic oils. The Halder paper states (page 272) that solvent refining of lubricating oil distillates to produce VI's of 85-100 is sufficient to effectively eliminate dermal carcinogenic activity. However, the actual data cited in Table V of the paper shows carcinogenic activity to exist for mildly solvent refined paraffinic distillates which have not been hydrofinished when the Viscosity Index is 76. No data is presented anywhere in the paper for carcinogenicity at any higher index. Therefore, OSHA is compelled to clarify its interpretation to consider as carcinogenic only those solvent refined paraffinic distillates whose Viscosity Index is 76 or below. The second modification concerns additives. Since Viscosity Index can be raised by additives without reducing the carcinogenicity of base oil, we are further requiring that the Viscosity Index of the base oil as it leaves the refinery stream be greater than 76 before the finished oil can be exempt from the labelling requirements of the Hazard Communication Standard.

Finally, with regard to your request to exempt the products of XXXXX Co., Inc. from the labelling requirement of the Hazard Communication Standard, we must again refer to IARC Monograph 33. The Monograph states that, "There is sufficient evidence for the carcinogenicity in experimental animals of untreated vacuum distillates, acid treated oils, and aromatic oils, including extracts from solvent treatment of distillates and the high boiling fraction of catalytically cracked oils (classes 1, 2, and 6)" pp. 150-151. If your products fall into one of these stated categories or any of the other categories identified by IARC as

of distillates and the high boiling fraction of catalytically cracked oils (classes 1, 2, and 6)" pp. 150-151. If your products fall into one of these stated categories or any of the other categories identified by IARC as producing carcinogenic products you are required to label appropriately under the Hazard Communication Standard. If your products do not fall into any category defined by IARC as producing carcinogenic effects and there is not other experimental evidence of carcinogenicity then those products are not subject to the labelling requirements of the Standard.

RECORD ID 1899

STANDARD NUMBER 1910.1200(b)(1); (c); 1910.1000
INFORMATION DATE 871120

ABSTRACT An interpretation letter discussing the applicability of the revised Hazard Communication Standard to the grain industry. Grain dust is a hazardous material as defined in section (c) definitions of the HCS. There are a number of studies which indicate that grain dust causes respiratory problems in workers. It is thus subject to the rule to provide information to workers and to ensure that they are aware of proper protective measures.

INTERPRETATION 29 CFR 1910.1200(b)(1); (c); 1910.1000

NOV 20, 1987

Thank you for your letter of October 27 on behalf of your constituent regarding a change in regulations affecting the grain industry. The rule in question is the Hazard Communication Standard (29 CFR 1910.1200) which was first promulgated by the Occupational Safety and Health Administration (OSHA) in 1983. On August 24, 1987, OSHA extended the application of this rule from the manufacturing industries (which includes some grain processing operations) to all industries where employees are exposed to any type of hazardous material (which would include grain elevators). A copy of the August 24 rule is enclosed for your use. The rule affirms that employees have the right to know the hazards of materials they work with, as well as appropriate steps they can take to protect themselves. This is to be accomplished by having a hazard communication program in each covered facility, with labels on containers of such hazardous materials, more detailed information in the form of material safety data sheets, and employee training programs. Grain dust is a hazardous material under the definition of the rule. In addition to evidence regarding its physical hazard potential (i.e., explosions in grain elevators), there are a number of studies which indicate that it causes respiratory problems in workers. It is thus subject to the rule to provide information to workers and to ensure that they are aware of proper protective measures. These types of activities have been implemented by many employers for years, but promulgation of the standard ensures a minimum level of protection for all exposed workers. The rule does not, as your constituent's letter implied, require grain dust to be eliminated nor does it set a permissible exposure limit for grain dust. It merely requires hazard information to be transmitted.

RECORD ID

1900

**STANDARD NUMBER
INFORMATION DATE**1910.1200(b)(4); 1910.1200(b)(4)(iii)
881117

ABSTRACT

Because the HCS addresses the handling of hazardous chemicals in sealed containers (per (b)(4)), OSHA cannot exempt stevedores in the containerized shipping industry from the training requirements of the HCS. Employers can develop training programs to reflect the type of work performed. Specific training is not required as to the hazards of each chemical that stevedores may encounter in a sealed container, provided that employees are aware of general precautions to take in the event of a spill or leak of the chemical.

INTERPRETATION

29 CFR 1910.1200(b)(4); 1910.1200(b)(4)(iii)

NOV 17, 1988

This is in response to your letter of June 15, concerning the training requirements of the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS) as applied to stevedores. Your letter requests reconsideration of our previous correspondence to you of June 6, 1988.

The standard itself addresses the issue of sealed containers in section 29 CFR 1918.90(b)(4)(iii): "Employers shall ensure that employees are provided with information and training...to the extent necessary to protect them in the event of a spill or leak of a hazardous chemical from a sealed container.." Although, as you state, stevedores may not directly handle individual sealed containers, the trailers, with their sealed cargo, would also be considered sealed containers and therefore covered by the limited provisions of the standard under paragraph (b)(4).

Since the standard addresses the handling of hazardous chemicals in sealed containers, OSHA cannot exempt stevedores in the containerized shipping industry from the training requirements of the HCS. Employers can develop training programs to reflect the type of work performed. For example, if an employer's work practice procedures for leaks and spills is to evacuate the work area, then the employer's training program could just address the proper action to take, such as evacuation procedures, cleanup responsibility, etc.

Specific training is not required concerning the hazards of each chemical stevedores may encounter in a sealed container, provided that employees are aware of general precautions to take in the event of a spill or leak of the chemical. If an employer has employees who open sealed containers, then those employees would be covered by the more comprehensive provisions of the standard.

RECORD ID**1902**

STANDARD NUMBER
INFORMATION DATE**1910.1200(b)(2); (d)(2); (d)(3)(I); (d)(5)(II); 1910.1000**
890208

ABSTRACT

Conditions under which crystalline silica, when bound in a polymeric compound and silicone rubber elastomers used to fabricate rubber articles, is covered by the HCS. If there is no exposure either under normal conditions of use or in a foreseeable emergency, then the chemical is not covered by the standard (b)(2). However, if under normal conditions of use an action, such as cutting or grinding, is performed on the product that could release the crystalline silica, then the product would be covered by the HCS and the presence of silica must be indicated on the material safety data sheet.

INTERPRETATION**29 CFR 1910.1200(b)(2); (d)(2); (d)(3)(I); (d)(5)(II); 1910.1000****FEB 8, 1989**

This is in response to your letter of August 22, 1988, concerning coverage of hazardous chemicals physically bound in a material under the Hazard Communication Standard (HCS) 29 CFR 1910.1200.

Your specific question concerned whether crystalline silica, when bound in a polymeric compound and silicone rubber elastomers used to fabricate rubber articles, is covered by the HCS. If a hazardous chemical is present in a mixture in reportable quantities (i.e., 0.1 percent for carcinogens and 1.0 percent for other health hazards), it is covered by the standard unless the mixture has been tested as a whole or the material is bound in such a way that employees can not be exposed.

The standard defines exposure as including potential as well as measurable exposure, and applies to any chemical which is known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency. If there is no exposure either under normal conditions of use or in a foreseeable emergency, then the chemical is not covered by the standard. However, if under normal conditions of use an action, such as cutting or grinding, is performed on the product that could release the crystalline silica, then the product would be covered by the HCS and the presence of silica must be indicated on the material safety data sheet.

RECORD ID 1904

STANDARD NUMBER 1910.1200(g)(1)(i)(B); 1910.1200(d)(5)(ii); 1910.1000
INFORMATION DATE 880216

ABSTRACT An analysis of a photocopier toner indicated that hexavalent chromium was present at .003 percent by weight or volume and therefore did not, under the Hazard Communication Standard, have to be reported on a material safety data sheet. Only those chemicals with quantities of 1% or greater that are determined to be health hazards or 0.1% for carcinogens are required to be on ingredient labels. Evidence presented is not sufficient to support that a permissible exposure limit would be exceeded or that a health hazard exists at a chromium concentration of .003 percent by weight or volume in the toner.

INTERPRETATION 29 CFR 1910.1200(g)(1)(i)(B); 1910.1200(d)(5)(ii); 1910.1000

FEB 16, 1988

This is in further response to your letter of December 18, 1987, regarding hexavalent chromium in photocopier toners.

As we mentioned in our November 24, 1987, letter, an analysis of the photocopier toner indicated that hexavalent chromium was present at .003 percent and therefore did not, under the Hazard Communication Standard, have to be reported on a material safety data sheet. In addition, we asked you if you had evidence that a health hazard existed or if an Occupational Safety and Health Administration's (OSHA) permissible exposure limit could be exceeded where toner chromium concentration is .003 percent.

Like you, OSHA is concerned about employee exposure to chromium. The evidence you presented in your letter, however, is not sufficient to support that a permissible exposure limit would be exceeded or that a health hazard exists at a chromium concentration of .003 percent. Additional support such as actual sampling data and animal and/or human studies demonstrating a carcinogenic effect (at a .003 percent concentration) would be needed before OSHA could require manufacturers to inform employees of the carcinogenic risk of chromium at a .003 percent concentration. Our review of the current scientific literature indicates that such evidence does not exist at this time.

You state that your client is concerned that his employees might be exposed to chromium. Under the Occupational Safety and Health Act of 1970 each employer is responsible for the safety and health of his or her employees. It would, therefore, be your clients responsibility to ensure that his employees are not being exposed above the permissible exposure limit (0.5 mg/m3 for soluble chromic or chromous salts as chromium and 1 mg/m3 for metal and insoluble salts). This responsibility applies even though an employer may not have received a material safety data sheet.

RECORD ID

1921

STANDARD NUMBER
INFORMATION DATE

1910.1200(f)(2); 1910.1200(b)(1)
871005

ABSTRACT

The August 24, 1987, expansion of the HCS requires distributors who have had employees exposed to hazardous chemicals to maintain MSDSs and train their employees. Other requirements include the development and implementation of the written hazard communication program. For a solid metal not exempt as an article due to its downstream use, the expanded standard permits the required label to be transmitted to the customer at the time of the initial shipment, and need not be included with subsequent shipments to the same employer unless the information on the label changes.

INTERPRETATION

29 CFR 1910.1200(f)(2); 1910.1200(b)(1)

OCT 5, 1987

This is in response to your letter of September 17, requesting confirmation of previously provided interpretations of the Hazard Communication Standard, 29 CFR 1910.1200.

The interpretation previously given in our May 23, 1986 letter to you remains unaffected by the August 24, 1987 expansion of the Hazard Communication Standard. There are, however, some new employer responsibilities resulting from the expansion that I would like to apprise you of.

Distributors, who have employees exposed to hazardous chemicals, must now maintain material safety data sheets and train their own employees. Other requirements include the development and implementation of the written hazard communication program. These duties must be met by May 23, 1988.

In addition, for a solid metal (such as a steel beam or a casting) that is not exempted as an article due to its downstream use, the expanded standard permits the required label to be transmitted to the customer at the time of the initial shipment, and need not be included with subsequent shipments to the same employer unless the information on the label changes. The label may be transmitted with the initial shipment itself, or with the material safety data sheet that is to be provided prior to or at the time of the first shipment. The exception to requiring labels on every container is only for the solid metal itself and does not apply to hazardous chemicals used in conjunction with, or known to be present with, the metal and to which employees handling the metal may be exposed (for example, cutting fluids or lubricants).

RECORD ID 1923

STANDARD NUMBER 1910.1200(b); b(1); (b)(4); (b)(6)(vii); (c); (d)(1); (d)(2); 1910.1200(g)(6);
1910.1000
INFORMATION DATE 881222

ABSTRACT Diesel exhaust emissions per se are not covered by the HCS. Diesel fuel, however, is covered and any known hazards associated with this fuel must be reported on a material safety data sheet, including the hazards associated with the combustion of the fuel.

INTERPRETATION 29 CFR 1910.1200(b); b(1); (b)(4); (b)(6)(vii); (c); (d)(1); (d)(2);
1910.1200(g)(6); 1910.1000

DEC 22, 1988

This is in response to your letter of November 4, regarding diesel exhaust emissions and the Hazard Communication Standard (HCS) 29 CFR 1910.1200.

Question 1:

Are diesel exhaust emissions covered under the HCS? If so, please cite specifically the mechanisms which trigger coverage under the HCS.

Answer:

No, diesel exhaust emissions per se are not covered by the HCS. Diesel fuel however is covered by the HCS and any known hazards associated with this fuel must be reported on the material safety data sheet, including the hazards associated with the combustion of the fuel.

Question 2:

If the answer to (1) is yes, what obligations do motor carriers have with regards to training, labeling, and other provisions of the standard, specifically for diesel exhaust emissions?

Answer:

All employers are required to develop and implement employee training programs regarding hazards of chemicals and protective measures for all employees exposed to hazardous chemicals in their work areas under normal operating conditions or in foreseeable emergencies. Employees in terminal operations exposed to hazardous chemicals would fall under these provisions. If employees in terminal operations are exposed to diesel fuel in their work areas, the hazards of diesel fuel must be incorporated in the training program. Trucks or other vehicles are not considered work areas for the purposes of the standard. Vehicle operators would not be covered while operating a motor vehicle, however operators would be covered while performing terminal operations.

The chemical manufacturer, importer, or distributor is responsible for labeling containers or diesel fuel. Employers are required to ensure that all containers of hazardous chemicals in the workplace are labeled. Engines, fuel tanks or other operating systems in a vehicle are not considered to be containers for purpose of the HCS and would require labeling.

Question 3:

If the answer to (1) is yes, who or which party is responsible for providing health hazard information on diesel exhaust emissions, such as material safety data sheets?

Answer:

Manufacturers and importers of diesel fuel are responsible for performing the hazard determination and transmitting the hazard information of diesel fuel to their downstream customers. Employers are

not required to evaluate chemicals unless they choose not to rely on the evaluation performed by the chemical manufacturer or importer for the chemical.

Question 4:

If the MSDS are are required, but not available for the chemical manufacturer, what alternatives do motor carriers have for acquiring the MSDS?

Answer:

Chemical manufacturers and importers are required to provide appropriate MSDS with their initial shipment and with the first shipment after a sheet has been updated. If the MSDS is not provided prior to or with the shipment, it is recommended that the employer write to both the supplier and the product manufacturer to request MSDS as soon as possible. Should the employer fail to receive the requested information, the nearest OSHA Area Office should be contacted for assistance in this matter.

RECORD ID

1925

**STANDARD NUMBER
INFORMATION DATE**

1910.1200(d)(2); 1910.1200(g)(1); 1910.1200(h)(2)(II); 1910.1000
890123

ABSTRACT

A chemical manufacturer of portland cement has performed a hazard determination and has prepared a material safety data sheet. The chemical manufacturer has indicated that cement can be both an eye and skin irritant. An employer using the portland cement is required to make the material safety data sheet available to employees who are exposed to the cement, as well as to train them regarding the potential hazards of working with the material.

INTERPRETATION

29 CFR 1910.1200(d)(2); 1910.1200(g)(1); 1910.1200(h)(2)(II);
1910.1000

JAN 23, 1989

Senator D has asked the Occupational Safety and Health Administration (OSHA) to respond directly to your letter to him dated November 28, 1988, regarding OSHA's rule requiring material safety data sheets.

The rule in question is the Hazard Communication Standard (HCS), 29 CFR 1910.1200, which was promulgated by OSHA in 1983. On August 24, 1987, the scope of the HCS was expanded to cover all employers with employees exposed to hazardous chemicals. The standard requires chemical manufacturers and importers to assess the hazards of chemicals which they produce or import, and that this hazard information is transmitted to affected employers and exposed employees. Chemical manufacturers and importers must convey the hazard information they learn from their evaluations to downstream employers by means of labels on containers and material safety data sheets.

The standard requires employers to establish hazard communication programs. These programs must provide information to employees on the hazards of the chemicals they are exposed to or potentially exposed to through labels on containers, material safety data sheets, and training programs. The training programs provide hazard information to employees so they can participate in and support the protective measures utilized at their workplaces. Non-manufacturing employers were to be in compliance with all provisions of the standard by May 23, 1988. OSHA however, extended the enforcement date to August 1, due to confusion resulting from a United States Court of Appeals decision.

It appears that the chemical manufacturer of the portland cement has performed a hazard determination and has prepared the material safety data sheet enclosed in your letter. The chemical manufacturer has indicated that cement can be both an eye and skin irritant. As an employer you are required to make the material safety data sheet available to your employees who are exposed to the cement, as well as to train them regarding the potential hazards.

OSHA has developed a number of resources to assist employers in complying with the HCS. A kit produced by OSHA is available that provides step-by-step guidance on complying with the requirements of the standard and serves equally well the needs of all employers, regardless of the industry in which they operate.

The kit may be purchased through the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402-9325, at a cost of \$18.00 for domestic users and \$22.00 for foreign users. It has GPO Order No. 929-022-00000-9 and is OSHA 3104 Hazard Communication Compliance Kit. It may be ordered by telephone from GPO by calling (202) 783-3238 and using a credit card.

In addition, a booklet entitled "Chemical Hazard Communication" (copy enclosed) provides employers with an easy to read explanation of the responsibilities of employers under the HCS. The booklet also contains a directory of all OSHA Regional and Area Offices. Employers may contact a Regional or Area Office for additional information or assistance.

RECORD ID

1932

STANDARD NUMBER
INFORMATION DATE

1910.1200(b)(2); (b)(6)(vii); (e)(2)(ii); (h)(1)(ii)
890331

ABSTRACT

Office workers who encounter hazardous chemicals only in isolated instances are not covered by the HCS. Most office products are exempt either as articles or as consumer products. Intermittent or occasional use of a copying machine does not result in coverage under the rule. However, if an employee handles a chemical (toner) to service the machine, or operates it for long periods of time, the program is to be applied.

INTERPRETATION

29 CFR 1910.1200(b)(2); (b)(6)(vii); (e)(2)(ii); (h)(1)(ii)

MAR 31, 1989

This is in response to your letter of March 3, on behalf of your constituent concerning the Material Safety Data Sheets (MSDS) requirements of the Hazard Communication Standard (HCS).

The HCS provides workers exposed to hazardous chemicals with the right to know the identities and hazards of those chemicals, as well as the appropriate means to protect themselves from adverse health effects. Any chemical that poses either a physical hazard (such as flammability) or a health hazard (such as causing damage to the skin or eyes) is covered by the rule.

A booklet describing the requirements of the standard is enclosed for your use. Employers who use chemicals will receive information about them from their suppliers. This information will be provided through labels on containers of hazardous chemicals, and material safety data sheets - bulletins which provide more detailed data regarding the hazards and recommended protective measures for the chemicals. Each employer with employees exposed to hazardous chemicals must have a hazard communication program, chemicals and how to protect themselves from those hazards.

There is no requirement for employers to maintain MSDSs for products that are located at other sites. In the situation if her employees are exposed to hazardous chemicals during the course of employment at another employer's site, that other employer must make the MSDSs available to her employees. In other words, the chemicals are under the other employer's control, and thus maintenance of MSDSs on the sites is that employer's responsibility.

If Mrs. X's employees are being placed in workplaces where they will be exposed to hazardous chemicals, then she is responsible for ensuring that they are provided proper training. Mrs. X could accomplish this by providing the training herself, or ensuring that training is provided as part of the contracting arrangement with the employer using the services of her employees. In any event, part of the training must deal with the location and availability of MSDSs. Mrs. X could satisfy her duties in this regard by requesting access to the data sheets from the employer at the site, or by training her employees to request such information when they ascertain that their duties involve exposure to hazardous chemicals.

It appears that Mrs. X's employees are clerical workers. If this is the case, they may not be subject to the requirements of the HCS. Office workers who encounter hazardous chemicals only in isolated instances are not covered by the rule. The Occupational Safety and Health Administration (OSHA) considers most office products (such as pens, pencils, adhesive tape) to be exempt under the provisions of the rule, either as articles or as consumer products. For example, Mrs. X specifically mentioned copy toner. OSHA has previously stated that intermittent or occasional use of a copying machine does not result in coverage under the rule. However, if an employee handles the chemicals to service the machine, or operates it for long periods of time, then the program would have to be applied. Under the Occupational Safety and Health Act, States are encouraged to assume responsibility for their own occupational safety and health programs under a plan approved and closely monitored by Federal OSHA. As you are aware, the (State)Labor Cabinet is operating under such a plan and is responsible for the enforcement of occupational safety and health standards in the State's workplaces. As a condition of plan approval, States are required to adopt and enforce occupational safety and health standards that are either identical

to or "at least as effective" as the Federal standards. (State) is enforcing an identical HCS which is applicable to manufacturers and non-manufacturers.

In addition, (State) offers free on-site consultation services to those employers who request guidance on compliance with occupational safety and health standards.

RECORD ID 1933

STANDARD NUMBER 1910.1200(b)(2); (c)
INFORMATION DATE 860304

ABSTRACT Interpretations as to classification of foundry products such as castings in relation to the HCS. In many situations, a casting would be considered an "article" under the definitions section of 1910.1200(c) and would be exempt from the provisions of the standard. However, if the casting is going to another manufacturing facility where it will be used in such a way as to release a hazardous chemical through a process or operation, information will have to be provided to the manufacturing purchaser of the product in accordance with the standard.

(NOTE: The standard has been amended.)

INTERPRETATION 29 CFR 1910.1200(b)(2); (c)

MAR 4, 1986

This is in response to your letter dated January 24 on behalf of your constituents regarding the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS).

Promulgation of the HCS on November 25, 1983, was the culmination of over 10 years of rulemaking activity by the Agency. The standard is based on the premise that employees have a right to know the identities and hazards of the substances to which they may be exposed in their place of employment. This knowledge will ultimately result in a reduction in the occurrence of illnesses and injuries resulting from such exposures.

Your constituent expressed concern about the classification of foundry products such as castings in relation to the HCS. In many situations, a casting would be considered an "article" under the HCS and would be exempt from the provisions of the standard. However, if the casting is going to another manufacturing facility where it will be used in such a way as to release a hazardous chemical, information will have to be provided to the manufacturing purchaser of the product in accordance with the standard. OSHA has never made a blanket interpretation that all foundry castings are covered by the standard. The HCS requires manufacturers of such products to make the determination as to whether the casting is exempt based upon its "normal conditions of use."

It is unfortunate that inaccurate information has been disseminated about the HCS. Many industry representatives participated in the development of this rule, and there was substantial industry support for its promulgation. The rule is performance-oriented, incorporating the flexible approach industry has long encouraged in OSHA standards. A two-year phase-in period for the requirements was also established to allow all employers sufficient time to come into compliance. We believe that the rule is neither unworkable nor unreasonable. It is impossible, however, to anticipate all of the problems that may arise in the many diverse industries covered by this generic approach, but we are attempting to deal with such situations as they are brought to our attention. These resolutions can only be based on considerations of factual information regarding the problem, and must result in employees receiving the information to which they are entitled under the rule.

RECORD ID 1934

STANDARD NUMBER 1910.1200(b)(2); (b)(6)(vii); (h)(2)(i)
INFORMATION DATE 880516

ABSTRACT Office workers or bank tellers who encounter hazardous chemicals only in nonroutine, isolated instances are not covered by the HCS. If an employee can be exposed to a hazardous chemical while performing any of the tasks within his/her job function, then that employee is covered by the standard. It is job function, rather than the length of time any employee is exposed to a chemical, that determines applicability of the standard. If a cashier is required to perform a cleanup procedure involving hazardous chemicals at the end of a work shift, that employee is covered by the standard even if the time required for the cleanup is short.

INTERPRETATION 29 CFR 1910.1200(b)(2); (b)(6)(vii); (h)(2)(i)

MAY 16, 1988

This is in response to your letter of March 22 concerning the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS), 29 CFR 1910.1200.

The HCS applies, as stated in 1910.1200(b)(2), "... to any chemical which is known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency." Under the definition of "employee" workers such as office workers or bank tellers who encounter hazardous chemicals only in non-routine, isolated instances are not covered. The amount of time an employee is exposed is not a parameter for determining whether a worker is covered by the standard. Rather, if an employee can be exposed to a hazardous chemical while performing his/her job function, then that employee is covered by the standard. For example, if a cashier is required to perform a clean up procedure at the end of the work shift, that employee would be covered by the standard even if the time required for the clean up was short.

The HCS does not specify how training is to be accomplished. The employer is free to select any method of training including an oral presentation. In addition, the standard does not state how long the training must be. If your client determines that a 15 minute oral presentation is sufficient to meet the training requirements of the HCS, OSHA would not object unless we determine that the training was not adequate. From an enforcement standpoint, therefore, OSHA would determine compliance with the training provisions based on whether an employee has been adequately trained and not on the type or length of the training program.

RECORD ID

1935

STANDARD NUMBER
INFORMATION DATE

1910.1200(g)(1); 1910.1200(b)(1); 1910.1000
890503

ABSTRACT

Regarding requirements set forth by the Hazard Communication Standard applying to oil and gas producers. Copies of material safety data sheets must be maintained on all hazardous chemicals in the workplace. Crude oil and natural gas meet the standard's definition of hazardous chemicals (per section (c)), posing physical and health hazards to exposed individuals, and therefore MSDS's must be kept on them. The MSDSs may be generic in nature.

INTERPRETATION

29 CFR 1910.1200(g)(1); 1910.1200(b)(1); 1910.1000

MAY 3, 1989

This is in further response to your letter of March 6 on behalf of your constituent regarding the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS), 29 CFR 1910.1200.

As employers covered by the expanded standard, which took effect for employers on August 1, 1987, oil and gas producers are required to maintain copies of materials safety data sheets for each hazardous chemical in the workplace and shall ensure that they are readily accessible during each work shift to employees when they are in their work area(s). Crude oil and natural gas meet the standard's definition of hazardous chemicals posing physical and health hazards to exposed individuals. Therefore, oil and gas producers are required to have a material safety data sheet for these substances, as well as for all other hazardous chemicals at your constituent's job sites.

Under the current rule, a "generic" material safety data sheet may address a group of complex mixtures, such as crude oil, which have similar hazards and characteristics because their chemical ingredients are essentially the same, even though the specific composition varies from mixture to mixture.

Evidence presented during our rulemaking proceeding indicates that availability of hazard information benefits both employers and employees. Employers are required to provide a safe and healthful workplace for employees, and will be able to do a better job when they have information about the potential hazards. Employees will be better able to take steps to protect themselves when they know what the hazards are and how to avoid exposure. The result will be a reduction in chemically-related occupational illnesses and injuries.

It is important to note that OSHA is undergoing further rulemaking to gather additional public comment and information regarding the Hazard Communication Standard's application to the non-manufacturing sector. Among many others, your constituent's national trade association, the Independent Petroleum Association of America, participated in the process and, on December 14, 1987, testified on this issue at public hearings provided by OSHA. A final determination on whether to modify the current rule on this or other issues as a result of the rulemaking record is presently expected in July 1989. Therefore, your constituent's obligations may be affected if changes are made to the standard.

OSHA has developed a number of resources to assist employers in complying with the HCS. A kit produced to OSHA is available that provides step-by-step guidance on complying with the requirements of the standard and serves equally well the needs of all employers, regardless of the industry in which they operate. The kit may be purchased through the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402-9325 at a cost of \$18.00. It has a GPO Order No. 929-022-00000-9 and is OSHA 3104, Hazard Communication Kit. It may be ordered by telephone from GPO by calling (202) 783-3238 and using a credit card.

In addition, a booklet entitled, "Chemical Hazard Communication" (copy enclosed) provides employers with an easy-to-read explanation of the responsibilities of employers under the HCS. The booklet also contains a directory of all OSHA Regional and Area Offices. Employers may contact a Regional or Area Office for additional information or assistance.

RECORD ID 1939

STANDARD NUMBER 1910.1200(f)(5); 1910.1200(f)(6); 1910.1048(m)(2); 1910.1048(n)(3)(i);
1910.1048(m)(3)(i)
INFORMATION DATE 880412

ABSTRACT Information is given on HCS requirements for MSDSs and labels for stationary process containers (f)(6). The Office of Management and Budget has disapproved the hazard communication provisions for the formaldehyde standard. Manufacturers are now required to follow the provisions of the HCS concerning labeling, MSDSs and training. Employers are exempt from 1910.1200 if no potential exists for employee exposure to hazardous substances, which might adversely affect their health or safety, nor any potential for foreseeable emergency conditions

INTERPRETATION 29 CFR 1910.1200(f)(5); 1910.1200(f)(6); 1910.1048(m)(2);
1910.1048(n)(3)(i); 1910.1048(m)(3)(i)

APR 12, 1988

This is in response to your letter of February 26 requesting clarification of issues concerning the hazard communication, hazardous waste operations/emergency response, and formaldehyde standards.

You asked whether a notation has to be made on a material safety data sheet in situations where the health hazard information is by class or family and not for a specific chemical. The Hazard Communication Standard requires, for health hazards, a notation on a material safety data sheet whenever there is evidence which is statistically significant and based on at least one positive study conducted in accordance with established scientific principles. Where the evidence can support that a class or family of chemicals is a health hazard, it would be appropriate to report the findings on a material safety data sheet for any chemical within the hazardous class or family.

Where it is impractical or inconvenient to affix labels to stationary process containers, the Hazard Communication Standard does allow alternatives as long as the alternative method identifies the containers to which it is applicable and conveys the information required by 29 CFR 1910.1200(f)(5) on the label. In addition, the written materials are required to be readily accessible to the employees in their work area throughout each work shift.

As you mention in your letter, the Office of Management and Budget has disapproved the hazard communication provisions for the formaldehyde standard, 1910.1048. Since these provisions of the formaldehyde standard are not enforceable, manufacturers are now required to follow the provisions of the Hazard Communication Standard concerning labeling, material data sheets, and training.

In response to your question concerning the application of the Occupational Safety and Health Administration's hazardous waste operations and emergency response interim final rule, employers are exempt if both of the following conditions exist:

1. There is no potential for employees to be exposed to hazardous substances which can result or may result in adverse effects to the health or safety of employees; and
2. There are no foreseeable emergency conditions.

RECORD ID 1940

STANDARD NUMBER 1910.1200(b)(2); 1910.1200(Appendix A); 1910.1200(b)(1);
1910.96(p)
INFORMATION DATE 880322

ABSTRACT The ionizing hazard from radioactive materials is not covered by the HCS. If a radioactive material presents other types of chemical hazards, such as those defined in Appendix A (Health Hazard Definitions) of the standard, then the chemical would be covered for those hazards. The hazards of radioactivity itself are usually covered under the rules of other Federal agencies, or, if not, then by OSHA's standard for ionizing radiation, 29 CFR 1910.96.

INTERPRETATION 29 CFR 1910.1200(b)(2); 1910.1200(Appendix A); 1910.1200(b)(1);
1910.96(p)

MAR 22, 1988

This is in response to your letter of February 29, concerning whether radioactive materials are covered under the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard, 29 CFR 1910.1200.

The information you received from our Directorate of Health Standards Programs is correct. The ionizing hazard from radioactive materials are not covered by the Hazard Communication Standard. If a radioactive material, however, presents other types of chemical hazards, such as those defined in Appendix A of the standard, then the chemical would be covered for those hazards. The hazards of radioactivity itself are usually covered under the rules of other Federal agencies, or if not regulated by another Federal agency, by OSHA's standard for ionizing radiation, 29 CFR 1910.96.

OSHA will shortly be publishing a notice of proposed rulemaking (NPRM) and notice of public hearing. It is the agency's intention to address in the NPRM that ionizing and nonionizing radiation are exempt from coverage under the standard.

RECORD ID 1945

STANDARD NUMBER 1910.1200(b)(2); 1910.1200(f)(2)
INFORMATION DATE 860320

ABSTRACT Under normal circumstances, a casting is considered an "article" as defined in 1910.1200(c) and is exempt from the provisions of the standard (c) definitions. However, if the casting is going to another manufacturing facility where it will be used in such a way as to possibly release a hazardous chemical, information is to be provided to the manufacturing purchaser of the product in accordance with the HCS.

INTERPRETATION 29 CFR 1910.1200(b)(2); 1910.1200(f)(2)

MAR 20, 1986

This is in response to your letter dated February 6 on behalf of your constituent regarding the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS).

Under normal circumstances, a casting would be considered an "article" under the HCS and would be exempt from the provisions of the standard. However, if the casting is going to another manufacturing facility where it will be used in such a way as to release a hazardous chemical, information will have to be provided to the manufacturing purchaser of the product in accordance with the standard. The HCS requires manufacturers of such products to make determinations as to whether the casting is exempt based upon its "normal conditions of use." Welding, burning, cutting, gouging, sanding and other operations will release metal dusts or fumes which are considered hazardous chemicals. Castings undergoing these types of processes must have a material safety data sheet to inform the user of the hazards associated with exposure to metal dusts and fumes.

RECORD ID**1946**

**STANDARD NUMBER
INFORMATION DATE****1910.1200(b)(6)(vii)
860630**

ABSTRACT

Finished consumer products such as (Company) hand soap are exempt from the requirements of the Hazard Communication Standard. This exemption applies as long as a product is used as it would be by a typical consumer (b)(6)(vii). When use, duration and/or frequency extend beyond normal use, the HCS applies to consumer products.

INTERPRETATION**29 CFR 1910.1200(b)(6)(vii)****JUN 30, 1986**

Mr. X has asked the Occupational Safety and Health Administration (OSHA) to respond to your letter of May 21, concerning the application of the Hazard Communication Standard (HCS), 29 CFR 1910.1200 to (Company) hand soap.

Finished consumer products such as hand soap are exempt from the requirements of the Hazard Communication Standard. This exemption would apply as long as the product was used as it would be by a typical consumer. However, if a manufacturer purchases a product--such as cans of spray paint intended for short, one-application consumer use--and uses it in production operations, then a material safety data sheet must be provided.

The HCS is the result of over 10 years of rule-making activity. Considerable research, combined with intense public comment, have shaped the standard into what we feel is a workable and meaningful document.

RECORD ID 1949

STANDARD NUMBER 1910.1200(f)(2); 1910.1200(b)(2); 1910.1200(c); 1910.1200(g)(1)
INFORMATION DATE 860311

ABSTRACT If copper, aluminum, or any other hazardous materials can be released in a customers' operations under sections (b)(2) or (d)(5), the manufacturer or distributor is required to provide material safety data sheets to manufacturing customers and to label shipments. For example, if such products are melted in downstream production operations, they are likely to release hazardous substances. However, a completed product may be considered an "article" and, based on 1910.1200(c), would not be covered under the standard. The HCS applies when an exempt article is further manufactured (e.g., melted) and a release of hazardous substances occurs.

(NOTE: The standard has been amended.)

INTERPRETATION 29 CFR 1910.1200(f)(2); 1910.1200(b)(2); 1910.1200(c);
1910.1200(g)(1)

MAR 11, 1986

This is in response to your letter dated February 20 on behalf of your constituent, regarding the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS).

The HCS relies on the downstream flow of information on hazardous chemicals from the manufacturer to the user. If the copper, aluminum, or any other hazardous components in the materials Mr. 's company uses can be released in his customers' operations, then he would be required to provide Material Safety Data Sheets to his manufacturing customers and to label shipments. For example, if such products are melted in downstream production operations, they are likely to release hazardous substances.

It is possible, however, that the completed product may be considered an "article." An "article" means a manufactured item: (1) which is formed to a specific shape or design during manufacture (2) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (3) which does not release, or otherwise result in exposure to, a hazardous chemical under normal conditions of use. Any product which meets the definition of an "article," would be exempt from the requirements of the Standard.

RECORD ID 1951

STANDARD NUMBER 1910.1200(e)(4); 1910.1200(e)(1); 1910.1200(g)(8)
INFORMATION DATE 880630

ABSTRACT An employer is expected to provide, at no cost, a copy of all material safety data sheets to a representative of his/her employees. The Hazard Communication Standard at 1910.1200(e)(4) requires that an employer make the written hazard communication program available, upon request, to employees and their designated representatives. Audiovisual training aides are not part of the written program and therefore are not subject to this requirement.

INTERPRETATION 29 CFR 1910.1200(e)(4); 1910.1200(e)(1); 1910.1200(g)(8)

JUN 30, 1988

This is in response to your letter of May 27. You have raised two specific questions.

Question 1:

Is an employer expected to provide, at no cost, a copy of all material safety data sheets to a representative of his/her employees?

Answer:

A material safety data sheet is defined as an employee exposure record under OSHA regulation 29 CFR 1910.20. Whenever an employee representative places an initial request for an exposure record, 1910.20(e) requires that the employer either (1) provide a copy of the record without cost; (2) make available mechanical copying facilities; or (3) loan the record for a reasonable period of time. An employer may charge administrative costs for a second and any subsequent request for the same record by the same employee group.

Question 2:

Is an employer required to provide a copy of the Hazard Communication Program, and if so, does this include training aides such as video tapes?

Answer:

The Hazard Communication Standard at 1910.1200(e)(4) requires that the employer make the written hazard communication program available, upon request, to employees and their designated representatives. Audiovisual training aides are not part of the written program and therefore are not subject to this requirement.

RECORD ID

1954

STANDARD NUMBER
INFORMATION DATE

1910.1200(c); (c)(1); (d)(2); (f)(2); (g)(1); (Appendix C)
870818

ABSTRACT

Definitions of article and chemical manufacturer under the HCS (c) definitions section. The HCS applies to the production of steel coils. The coils are considered a chemical and the producer is considered a chemical manufacturer. Manufacturers may use the Standard Form OMB No. 1218-0072 (OSHA Form 174), which is a nonmandatory form developed by OSHA to ease employer compliance with the standard. The Hazard Communication Standard does not specify a format for a material safety data sheet, but does specify the types of information that must be included.

INTERPRETATION

29 CFR 1910.1200(c); (c)(1); (d)(2); (f)(2); (g)(1); (Appendix C)

AUG 18, 1987

This is in response to your letter of July 10, regarding compliance with the Occupational Safety and Health Administration's Hazard Communication Standard (OSHA), 29 CFR 1910.1200.

The Hazard Communication Standard defines an article as a manufactured item: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which does not release, or otherwise result in exposure to, a hazardous chemical under normal conditions of use. Accordingly, manufacturers or importers must do their best to anticipate the uses of their products and determine whether downstream employees can be exposed to a hazardous chemical. If such an exposure does occur or has the potential to occur then the product could not be considered as an article. Articles are exempt from the requirements of the standard.

The standard defines a chemical manufacturer as an employer in Standard Industrial Classification Codes 20 through 39 with a workplace where chemical(s) are produced for use or distribution. In addition, the standard also defines "chemical" to mean any element, chemical compound or mixture of elements and/or compounds. Therefore, any employer who is engaged in a manufacturing operation is considered a chemical manufacturer. Steel coils would be considered a chemical under the Hazard Communication Standard and therefore covered by the requirements of the standard.

With regard to the material safety data sheet referenced in your letter (Form OMB No. 1218-0072, more commonly referred to as OSHA Form 174) this is a non-mandatory form developed by OSHA to make it easier for employers to comply with the standard. The Hazard Communication Standard does not specify the format for a material safety data sheet but does specify the types of information that must be included.

Section II of the above form applies only to the hazardous ingredients of a product. "Hazardous," as defined by the standard, means any chemical which is a physical or health hazard. The enclosed copy of the standard provides definitions for physical and health hazards. All of the remaining sections of the form apply to the product and/or its hazardous ingredients.

For example, an employer could put the boiling point for a mixture or just indicate the boiling point for each hazardous ingredient. The "IDENTITY" space provided for on the material safety data sheet is used to indicate the chemical or common name of the product. Whatever identity is used by the chemical manufacturer or importer must permit cross-reference with the label. In other words, the employer is allowed to use any product name as long as the name is the same for both the label and the material safety data sheet.

In regard to Sections VI and VII, these items require employers filling out the form to evaluate the hazards of their products. Hazard determination is a requirement of the Hazard Communication Standard. The hazard determination can be made through a review of existing scientific literature. Appendix C of the enclosed standard provides a list of available data sources which chemical manufacturers or importers may wish to consult to evaluate the hazards of chemicals they produce or import.

RECORD ID 1956

STANDARD NUMBER 1910.1200 (b)(2); (d)(1); (d)(2); 1910.1000
INFORMATION DATE 871123

ABSTRACT Response to inquiry concerning standards applicable to the process of wrapping meats in plastic. Air contaminants released from meat wrapping need to be identified to determine which, if any, standards in 1910, Subpart Z, apply. If the plastic wrapping material releases hazardous substances during the wrapping process, the HCS applies. One HCS requirement of the manufacturer of the plastic wrapping material is to complete a material safety data sheet on the wrapping. Section (g) sets out what is required in an MSDS. If materials are emitted during normal use, the manufacturer must list the hazardous chemicals.

INTERPRETATION 29 CFR 1910.1200 (b)(2); (d)(1); (d)(2); 1910.1000

NOV 23, 1987

This is in response to your inquiry of October 28 concerning your client.

The Occupational Safety and Health Administration (OSHA) may have some air contaminant standards that are applicable to the process of wrapping meats in plastic. Before it can be established whether OSHA does, the air contaminants released would have to be identified.

After you identify the air contaminants, consult 29 CFR 1910, Subpart Z, to see if there are standards for any of them. Moreover, if the plastic wrapping material releases hazardous substances during the wrapping process, the hazard communication standard, 29 CFR 1910.1200 applies. One of its requirements is that the manufacturer of the plastic wrapping material must provide a Material Safety Data Sheet for it. Therefore, you may want to contact the manufacturers of the plastic wrapping materials.

RECORD ID 1958

STANDARD NUMBER 1910.1200(f)(4)
INFORMATION DATE 880614

ABSTRACT Hazard Communication Standard requirements for Labeling International Agency for Research on Cancer (IARC) category 2B carcinogens. If valid studies include positive evidence of human carcinogenicity, OSHA requires hazard warnings of carcinogenicity on labels. IARC's summary classification of a chemical's carcinogenic risk as a category 2B applies where there is sufficient evidence to classify a substance as an animal carcinogen, but inadequate data to classify it as a human carcinogen. In general, carcinogen labeling is not required for chemicals in the 2B category.

INTERPRETATION 29 CFR 1910.1200(f)(4)

JUN 14, 1988

Your letter of April 8 has been forwarded to me for response. You have asked for clarification of an apparent inconsistency in guidance provided to our compliance officers regarding requirements for labeling International Agency for Research on Cancer (IARC) category 2B carcinogens.

While all hazards covered by the Hazard Communication Standard (HCS) must be listed in the Material Safety Data Sheet, selection of hazards to be highlighted on the label will involve some assessment of the weight of the evidence regarding each hazard listed on the data sheet. If valid studies include positive evidence of human carcinogenicity, OSHA requires hazard warnings of carcinogenicity on the label.

IARC's summary classification of a chemical's carcinogenic risk as a category 2B is reserved for cases where there is sufficient evidence to classify substance as an animal carcinogen but inadequate data to classify it as a human carcinogen. In general, carcinogen labeling would not be required for chemicals in this category. Of course, if sufficient evidence of human carcinogenicity has become available subsequent to the publication of the IARC summary evaluation, carcinogen warnings on labels will be appropriate and required.

RECORD ID 2145

STANDARD NUMBER 1910.1200; (d)(5)(i); (d)(5)(iii); (d)(5)(iv); (g)(2)(i)(B)
INFORMATION DATE 840801

ABSTRACT For mixtures of non-interacting compounds, component MSDSs may be attached to a cover sheet identifying the mixture product and listing all the constituents (section (g)). If any of the constituents meet the criteria of section (d), Hazard Determination, then the applicable sections of the standard apply to the mixture.

INTERPRETATION 29 CFR 1910.1200; (d)(5)(i); (d)(5)(iii); (d)(5)(iv); (g)(2)(i)(B)

AUG 1, 1984

This is in response to your inquiry dated June 22, concerning the completion of Material Safety Data Sheets (MSDS), under the Occupational Safety and Health Administration's (OSHA) Hazard Communication standard (29 CFR 1910.1200) for products that are composed of a mixture of non-interacting chemicals.

For such products, you propose that component chemical MSDS be attached to a cover sheet identifying the mixture product and listing all constituents.

This approach is acceptable as long as the hazards associated with the mixture are not different from that of its components.

SOURCE LETTER

JUN 22, 1984

The question was whether MSDS's for non-interacting mixtures of OSHA hazardous materials can be prepared by composing a cover sheet listing the hazardous and nonhazardous components, and attaching the manufacturers MSDS for the hazardous materials as shown on the attached sample.

It is understood that this can be done only for non-interacting materials.

RECORD ID 2155

STANDARD NUMBER 1910.1200(j)
INFORMATION DATE 850925

ABSTRACT The Hazard Communication Standard went into effect as of November 25, 1985. HCS requirements regarding material safety data sheets and labels are not retroactive. Hence, for old products, there is no OSHA obligation to respond to requests for data sheets and labels.

INTERPRETATION 29 CFR 1910.1200

SEP 25, 1985

This is in response to your letter of September 9, inquiring whether any Occupational Safety and Health Administration (OSHA) requirement places an obligation for employers to respond to requests for material safety data sheets (MSDS) for old products.

The case you relate in your letter indicates a former customer has asked for an MSDS for a product you ceased manufacturing more than 12 years ago. OSHA's new Hazard Communication Standard (HCS) goes into effect in two stages. Chemical manufacturers, importers and distributors must transmit MSDS and label products containing hazardous chemicals on and after November 25, 1985.

This requirement is not retroactive, and accordingly you would not be required under the HCS to transmit a MSDS.

RECORD ID**2161**

**STANDARD NUMBER
INFORMATION DATE****1910.1200(f)(1)(iii); 1910.1200(g)(3)(xii)
850904**

ABSTRACT

Because the Hazard Communication Standard is a performance standard, a judgment must be made by a company as to whether or not the telephone number provided must be answered on a 24-hour basis. The relative hazard, probable use and potential for emergency situations requiring additional information should be considered when making this judgment.

INTERPRETATION**29 CFR 1910.1200(f)(1)(iii); 1910.1200(g)(3)(xii)****SEP 4, 1985**

Thank you for your letter of July 26 regarding the hazard Communication Standard (HCS) (29 CFR 1910.1200).

A telephone number is required on material safety data sheets, not labels. The purpose of the number is to ensure that someone can "provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary." The standard does not explicitly state that the telephone number must be answered on a twenty-four hour basis. It appears that some judgment must be made based upon the probable use of your products, and the potential for the occurrence of emergency situations that would require additional information. Many firms that produce highly toxic materials that are likely to be used by other employers during three-shift operations do provide twenty-four hour coverage of their emergency telephone numbers. Producers of mildly toxic materials, which are used in operations that proceed during normal working hours, would be less likely to have such coverage.

Since the HCS is a performance standard, a determination as to what is appropriate in your situation must be made by your firm.

RECORD ID

2162

**STANDARD NUMBER
INFORMATION DATE**1910.1200(g)(2)(i)(B); 1910.1200(g)(4); 1910.1200(g)(2)(i)(C)(1)
851004

ABSTRACT

It is acceptable to prepare a material safety data sheet to cover different products that contain the same chemicals in different proportions, as long as all the information required in CFR 1910.1200(g) (2) is contained therein.

INTERPRETATION29 CFR 1910.1200(g)(2)(i)(B); 1910.1200(g)(4);
1910.1200(g)(2)(i)(C)(1)

OCT 4, 1985

This is in response to your September 6 inquiry regarding the development of a generic Material Safety Data Sheet (MSDS) for your products. In your correspondence you asked if it would be acceptable to develop one MSDS to cover propane, butane, propylene, and butane/propane mixtures.

It is acceptable to prepare an MSDS to cover different products that contain the same chemicals in different proportions, as long as all the information required by paragraph 29 CFR 1910.1200(g) (2) is contained on the MSDS.

The generic MSDS attached to your inquiry was reviewed. Since the MSDS has information relative to chemicals in several different products, the MSDS must somehow identify the hazard information for the product that is being used.

In addition, a cursory review of the health hazard information indicates that the generic MSDS reflects one threshold limit value for the chemicals in all of the products. The MSDS must indicate the OSHA permissible exposure limit, the ACGIH Threshold Limit Value, and any other exposure limit used or recommended by the chemical manufacturer or importer for each ingredient that has been determined to be a health hazard which is present in the product in a concentration of one percent or more (0.1 percent if a carcinogen is present). Further, the health hazard information must also be reflected on the MSDS for each chemical in the product that is determined to be a health hazard, subject to the percentage limitations mentioned above.

Finally, paragraph 29 CFR 1910.1200(g)(2)(vii) requires that the MSDS reflect whether the hazardous chemical is listed in the National toxicology Program's Annual Report on Carcinogens or has been found to be a potential carcinogen in the monographs published by the International Agency for Research or Cancer, or by OSHA.

RECORD ID 2164

STANDARD NUMBER 1910.1200(f)(1)(ii); (f)(4); (g)(2)(iii); (g)(2)(iv); (g)(2)(vi); (g)(2)(vii);
1910.1000
INFORMATION DATE 850904

ABSTRACT A material safety data sheet (MSDS) and/or label for an antiknock compound containing high percentages of Ethylene Dibromide (EDB), Ethylene Dichloride (EDC) and tetraethyl lead must reflect all valid evidence concerning both the acute and chronic hazards of the constituents, as well as any known carcinogenic effects (per (g)(2) and (f)).

INTERPRETATION 29 CFR 1910.1200(f)(1)(ii); (f)(4); (g)(2)(iii); (g)(2)(iv); (g)(2)(vi); (g)(2)(vii);
1910.1000

SEP 4, 1985

Thank you for your letter of June 13, 1985, regarding questions you have concerning interpretations of the Hazard Communication Standard. The responses are as follows:

In your first question, you asked whether a material safety data sheet (MSDS) and/or label for your antiknock compound should reflect the chronic hazards of EDB or EDC when the acute hazard of tetraethyl lead is so severe. The MSDS for a compound must reflect all valid evidence concerning both the acute and chronic hazards of the constituents. Your company is free to make whatever statements seem appropriate regarding the relative hazards based upon the composition, but the evidence must be reported. That is the essence of a "right-to-know standard."

On the label, the standard required "appropriate hazard warnings." There is obviously a need for professional judgment to determine what is "appropriate" in each situation. However, in areas where a judgment must be made, it would be prudent to err on the side of disclosure. This approach is consistent with the intent of the standard. Given the high percentage of both EDB and EDC present in your compound, my personal opinion is that the chronic hazards should certainly be on the label as well as on the MSDS.

With regard to question no. 2, I think it would be reasonable to assume that if a component that is corrosive by itself is not shown to be so when tested in a mixture where it comprises 25% of the compound, it would also not render the mixture corrosive when it comprises 1-5%. Of course, that assumption is also based upon the diluent being the same, and not something which could produce a synergistic effect. When you state that the label would only cover the acute hazards of the mixture, I assume that you mean there are no chronic hazards associated with the mixture. I am also assuming that corrosivity is the only health hazard ZDDP contributes to the mixture.

The answer to question no. 3 is related to no. 1. Again, the MSDS is a compilation of everything known about a chemical, whereas some degree of judgment is required to determine what is "appropriate" to put on a label. Certainly, the IARC information must be on the MSDS. And unless there is a scientifically defensible reason not to, I would indicate the cancer hazard on the label as well.

SOURCE LETTER

JUNE 13, 1985

I very much appreciate your willingness to answer in writing several questions that were causing us concern in the MSDS and label areas.

Question No. 1

For our antiknock compound with the composition

Tetraethyl lead	61.45%
EDB	17.85%
EDC	18.80%
Inerts & Dye	1.90%

We currently classify the product as highly toxic by ingestion, absorption, and inhalation.

In developing new labels and MSDS to comply with current OSHA Hazard Communication Rule we wonder if we should show on the MSDS and/or label the chronic hazards associated with the EDB and EDC?

In our judgment the PEL of TEL at 75 ug/m3 coupled with the industrial hygiene required to avoid toxicity from TEL will result in no meaningful risk from either EDB or EDC. In addition to respiratory protection where overexposure might occur, protective clothing, foot protection, goggles and impermeable gloves are required.

Because of the wide PEL difference between TEL at 0.075 mg Pb/m3 we are concerned that emphasizing the chronic hazard from EDB will detract from the emphasis needed to protect from the organic lead hazard.

Question No. 2

For some of our lube oil additives containing ZDDP (Zinc Dialkyldithiophosphate) we would like to know if our toxicologist can use judgment for those mixtures containing substantially less ZDDP than a tested mixture? Specifically, we have found that oil mixtures containing less than 25 wt % of ZDDP are not corrosive. We feel that mixtures containing 5% or 1% could be considered not corrosive on a judgment without test.

In these cases the MSDS would list the ZDDP as being present but it would not state that the ZDDP was itself corrosive or that the mixture was corrosive.

The label would of course cover only the acute hazards of the mixture.

Question No. 3

Many of our products contain from 1 to 15% of an aromatic oil listed in IARC as an animal carcinogen. The exact amount is confidential. We would of course show this aromatic oil as present. We would, however, use the judgment of the toxicologist in determining when to list the chronic hazard on the label. We would do this depending on the amount of diluent oil we judge to be a cancer hazard. Is this policy in accord with the interest of the OSHA rule?

As I explained to you on the phone, all of us within (Corporation) are enthusiastic in complying with all facets of the OSHA rule. It was in fact this enthusiasm that caused honest differences of opinion within the group and lead to this inquire. These few answers will greatly aid us in fulfilling our corporate obligations in this area.

RECORD ID 2166

STANDARD NUMBER 1910.1200(g)(4)
INFORMATION DATE 850709

ABSTRACT Manufacturers of complex mixtures with similar hazards and contents need only prepare one material safety data sheet as for the mixture, as long as the information required in (g)(2) is provided. However, if the hazard potential changes, a single MSDS will not suffice.

INTERPRETATION 29 CFR 1910.1200

JUL 9, 1985

Thank you for your letter of April 26 regarding the Hazard Communication Standard (HCS).

As you noted, the HCS allows manufacturers of complex mixtures with similar hazards and contents to prepare only one material safety data sheet for these mixtures. In your letter, you state that these mixtures have varying flash points and vapor pressures, and ask whether it is necessary to list these for the mixture. If the variation is slight, that is, the flash points and vapor pressures are within a small range and the hazard potential is the same, reporting of the range would suffice. However, if the hazard potential changes (e.g., a different flashpoint results in a chemical being flammable rather than combustible), then the specific information must be reported. The key to determining the appropriateness is to ensure similarity in contents and hazard--without both, a single data sheet will not suffice.

RECORD ID 2276

STANDARD NUMBER 1910.1200(d)(2); 1910.1200(d)(1); 1910.1200(b)(5)(ii)
INFORMATION DATE 860321

ABSTRACT An Interpretive Letter discussing the application of the HCS to flavor extracts. Hazard evaluation does not require testing but does require a complete search of available sources of information. Flavor extracts are exempted from the labeling requirements of the standard (b)(5)(ii).

INTERPRETATION 29 CFR 1910.1200(d)(2); 1910.1200(d)(1); 1910.1200(b)(5)(ii)

MAR 21, 1986

This is in response to your letter dated March 4 on behalf of your constituent regarding the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS). Mr. X expressed concern about the application of the HCS to flavor extracts used in his business.

The HCS may in fact require the transmission of material safety data sheets for flavor extracts. The standard requires that chemical manufacturers make an evaluation of their product's toxicity and physical properties. This evaluation does not require testing. The standard's "hazard determination" procedures allow the evaluator to rely on the literature that is available.

In the case of mixtures, chemical manufacturers may rely on the material safety data sheets received from their suppliers. The material safety data sheet received may serve as the basis for your constituent's evaluation of the products he sells.

The HCS exempts flavor extracts from its labeling requirements. These products already require labeling under the Federal Food, Drug and Cosmetic Act.

SOURCE LETTER

(No Date)

The Occupational Safety & Health Admin.(OSHA) Hazard Communication Standard 29 CFR 1910, 1200 Federal Register 48, 53280-53348, November 25, 1983 has ruled that all companies must provide Material Safety Data Sheets to their customers by Nov. 25, 1985.

These data sheets originally covering hazardous chemicals have been extended to include non-hazardous flavoring extracts such as lemon, orange, root beer, etc. which we produce.

The information requested in these data sheets are very technical requiring expensive laboratory analysis which only large companies are capable of handling and it is even quite burdensome to large companies.

Unfortunately we are not a large company and find the data requested in these sheets near impossible for us to supply. Such a burden probably will drive us out of the domestic flavor business which we have been able to survive for 91 years as a small manufacturer.

RECORD ID 2280

STANDARD NUMBER 1910.1200(f)(3); 1910.1200(f)(5)
INFORMATION DATE 860103

ABSTRACT A confirmation letter discussing the labeling requirements of the Hazard Communication Standard. Chemical manufacturers, importers and distributors may affix labels to shipping papers when the container is a tank truck, rail car or the like. Labeling a pallet of bags is a violation of the standard, unless each individual bag leaving a workplace is labeled, per section (f). In specific and limited circumstances, however, labeling a pallet may be allowed.

INTERPRETATION 29 CFR 1910.1200(f)(3); 1910.1200(f)(5)

JAN 3, 1986

This is in response to your letter dated October 29, 1985, requesting confirmation of three items relating to the Hazard Communication Standard.

As you correctly stated, chemical manufacturers and importers must label containers of hazardous chemicals leaving their workplaces, and provide material safety data sheets with initial shipments by November 25, 1985. The requirements of the standard are not retroactive regarding material safety data sheets and labels.

Labels should be put on imported hazardous materials as soon as practicable. Where the shipping container is a tank truck, rail car, or the like, the appropriate label may be provided with the shipping papers rather than posted on the container. It should not take beyond the first stop after the material leaves the pier to affix these labels.

Technically, chemical manufacturers, importers, or distributors are required to label each container leaving the workplace. Your method of labeling the entire pallet containing the shrink wrapped bags is a technical deviation from 29 CFR 1910.1200(f)(1), but is acceptable as long as the following is performed:

- a. One label is placed on the outside of the pallet.
- b. Individual labels are provided for each of the individual bags sold to your customer.
- c. A determination is made that the customer did put these labels on.
- d. This procedure is limited to your present stock. All future stock should be properly labeled.

SOURCE LETTER

OCT 29, 1985

RE: OSHA Hazard Communication - Final Rule

Like everyone else in our business we have run into problems interpreting this rule and putting it into practice. We have turned to your office for clarification and wish to confirm our understanding of the following points which were discussed with yesterday. If our understanding is not completely correct, please contact us. As explained we are importers and distributors.

1. We are responsible for providing material Safety Data Sheets and for properly labeling every order that goes out after November 25th. We are not responsible for MSDS and labels for orders shipped prior to this date.
2. As we have no control over our overseas producers and can only request their compliance on labeling we asked the following question. If goods enter this country improperly labeled and we

are the importer of record at which point must we affix the proper labels? As we understand it we would be responsible for having the proper labels put on at the first stop after the material leaves the pier whether this be at our warehouse or at our customer's facility.

3. We are currently storing material in our warehouse, which is in bags, palletized and shrink wrapped. It is our policy to sell whole pallets. It would be very difficult for us to break the pallets to affix the new labels and we therefore inquired whether we could put one label on the outside of the pallet while it was in storage and ship it labeled in this fashion to our customer. We consulted with someone in your office on this matter and assured us that we could do this provided we sent along labels for the individual bags to our customer and followed up in a reasonable fashion (i.e. by telephone) to make sure the customer had put these labels on.

RECORD ID

2282

**STANDARD NUMBER
INFORMATION DATE**

**1910.1200(g)(1); 1910.1200(c); 1910.1200(f)(5)
860317**

ABSTRACT

An Interpretive Letter discussing the application of the Hazard Communication Standard to lift trucks. OSHA considers lift trucks to be machines and not containers, (c), Definitions. Hence labeling of the lift trucks or their components is not required. Material safety data sheets must be provided, however, on gasoline and other fuels used by the lift trucks. Employees should be made aware of the potential exposure (e.g., to carbon monoxide) in working around lift trucks.

INTERPRETATION

29 CFR 1910.1200(g)(1); 1910.1200(c); 1910.1200(f)(5)

MAR 17, 1986

Thank you for your letter dated November 11, 1985, in regard to the Hazard Communication Standard. Please accept my apology for the delay in response. The overwhelming number of letters and telephone calls regarding the Hazard Communication Standard has caused unavoidable delays in responding to the public's concerns.

OSHA considers lift trucks to be machines and not containers. Containers are required to be labeled according to the standard. Labeling vehicle components seems to be impractical and would be cumbersome.

Material safety data sheets do not have to be provided for lift trucks. However, material safety data sheets are required for the gasoline and other fuels used by the lift trucks. Employees should be aware of the potential for exposure to carbon monoxide and associated physical hazards of petroleum fuel products such as fire and explosion.

Labeling of vehicle components is not necessary. Lift trucks do not meet the current definition of an "article" because of potential exposures to carbon monoxide and physical hazards of petroleum fuel products. The "article" definition was one of the issues upon which OSHA requested comment in the November 27, 1985, publication of the Federal Register. Comments were accepted until February 25, 1986.

MEMORANDUM

SUBJECT: Request for Hazard Communication Interpretation

Based on a December 13, 1985, telephone conversation I am forwarding a request for an interpretation regarding lift trucks and the hazard communication standard.

The requester has been notified that his questions have been referred to your office and that a response will be forthcoming. I would appreciate a copy of your response.

SOURCE LETTER

NOV 11, 1985

I recently had a meeting with (Company) concerning the Hazard Communication Standard. During our meeting several items were discussed including the Standards inevitable expansion. There were three questions which Hyster Company would appreciate a written response from OSHA:

1. Does (Company) have to provide Material Safety Data Sheets (MSDS) for lift trucks (by-product of combustion-carbon monoxide)?

2. Does (Company) have to label all radiators (antifreeze), brake lines (brake fluid), gasoline, propane, diesel tanks (fuel), crank case (various oils), etc.?
3. Are they exempt from having to comply with items one and two because lift trucks are considered articles?

RECORD ID

2283

STANDARD NUMBER
INFORMATION DATE

1910.1200(g)(8); 1910.1200(g)(10); 1910.20(d)(1)(ii)(B); 1910.20(e)(1)
860113

ABSTRACT

An Interpretive Letter discussing the maintenance of MSDSs on a computer database. Maintaining material safety data sheets on a computer is perfectly acceptable as long as the computer is readily accessible during each workshift to employees when they are in their work area(s).

INTERPRETATION

29 CFR 1910.1200(g)(8); 1910.1200(g)(10); 1910.20(d)(1)(ii)(B);
1910.20(e)(1)

JAN 13, 1986

Reference is made to your letter dated November 20, 1985, requesting if material safety data sheets (MSDS) on a computer data base would be in compliance with provisions of 29 CFR 1910.

There are two standards in OSHA's General Industry Standards, 29 CFR 1910, that specifically address employee access to MSDS's. They are: 1910.20, "Access to employee exposure and medical records", and 1910.1200 "Hazard Communication".

Under 1910.20, the MSDS is considered a record and as per 1910.20(d)(ii)(B), "need not be retained for any specified period as long as some record of the identity (chemical name if known) of the substance or agent, where it was used, and when it was used is retained for at least thirty (30) years...." Due to the length of time involved, storage of MSDS's as records under 1910.20 on a computer data base could require special planning on the part of the employer. Also, 1910.20(e) states that any employer must provide access to a record in a reasonable time, place, and manner, but in no event later than 15 days after the request for access is made. Based on your letter, this requirement should pose no compliance problem for the proposed method of storing MSDS's.

However, under 1910.1200(g)(8), the employer must ensure that the MSDS's are readily accessible during each workshift to employees when they are in their work area(s). 1910.1200(g)(10) reiterates the above and allows MSDS's to be kept in any form.

In conclusion, if the employee's work area includes the area where the MSDS's can be obtained, then maintaining MSDS on a computer would be in compliance. If the MSDS's can only be accessed out of the employee's work area(s), then the employer would not be in compliance with 1910.1200(g)(8) or (10).

SOURCE LETTER

NOV 20, 1985

RE: Employer Compliance with Material Safety Data Sheet Requirements of 29 C.F.R. Part 1910 by means of Computer Data Base.

We are requesting a formal opinion of whether an employer who maintains the required material safety sheets (M.S.D.S.) on a personal computer disc data base will be in compliance with the provisions of 29 C.F.R. Part 1910. The information would be called up by a program and the employer would make available to employees ready access to the computer and necessary assistance in its use during all workshifts. A hardcopy printout could also be provided by printer at any time. If this is sufficient information for you to advise us of whether this would be satisfactory compliance, we would appreciate your opinion.

RECORD ID

2294

STANDARD NUMBER
INFORMATION DATE

1910.1200(f)(3); 1910.1200(f)(5)(ii); 1910.1200(c); 1910.1200(f)(5)
851202

ABSTRACT

An Interpretive Letter regarding inspection procedures for the Hazard Communication Standard. A container under the standard is anything that holds hazardous chemicals, except pipes and piping systems, per (c), Definitions. The intent of labels on rail cars and tank trucks, etc., is to ensure that employees receive clear hazard warnings on first contact with a product.

INTERPRETATION

29 CFR 1910.1200(f)(3); 1910.1200(f)(5)(ii); 1910.1200(c);
1910.1200(f)(5)

DEC 2, 1985

This is in response to your letter of November 4, regarding the Occupational Safety and Health Administration's (OSHA) inspection procedures for the Hazard Communication Standard.

In your letter you indicated that your greatest concern is that OSHA has recently taken the position that tank trucks and tank cars are containers. Tank cars and rail cars have always been considered to be included under the definition of a container. In the Summary and Explanation of the Standard it is stated that a container is "anything that holds hazardous chemicals except pipes and piping systems" (48 FR 228, p. 53335).

The intent of the label on shipped containers is to ensure that the purchaser of the hazardous chemical receives appropriate information and hazard warnings at the time the shipment is received. With rail cars, tank trucks, etc., it is acceptable to place the label with the bill of lading rather than on the tank truck itself. The key is to ensure that the method chosen supplies label information to employees covered by the standard at first contact with the product.

SOURCE LETTER

NOV 4, 1985

This letter expresses the concerns of (Oil Company) on the issue of including tank trucks and rail cars in the OSHA hazard communication standard's labeling requirements.

(Oil Company) is putting into place its product container labeling program to meet the November 25, 1985 deadline in the OSHA Hazard Communication Standard. Recently, we were surprised to learn that OSHA's recently-issued compliance enforcement guidelines define "container" to include tank trucks and rail cars, thus requiring them to be labeled like other product containers leaving the workplace.

(Oil Company) is concerned with this interpretation because the issue was not addressed in the proposed or the final rulemaking proceedings on the hazard communication standard. We believe it is not appropriate for OSHA to enforce labeling of tank trucks and rail cars without adequate notice to the regulated community.

Requiring OSHA-type labels on rail cars and tank trucks imposes a substantial burden, especially at this late date. Labels developed for drums and smaller product containers, especially of solvents, are inappropriate for tank trucks and rail cars in that the hazard warnings on the label are designed for small quantity usage in confined spaces such as inside rooms and buildings. New labels cannot be designed, printed and distributed in the next 90 days.

Tank truck deliveries of petroleum products, whether made by (Oil Company) employees or common carriers, are loaded and unloaded in most cases by the driver. The customer does not take custody or have any contact with the product until it is in his tank.

Almost all of our business is with repeat customers who will have an MSDS for the products they purchase from us on hand before the November 25, 1985 deadline. New customers will be mailed an MSDS within a week of the order date and in many instances before product delivery. Designing a new labeling system to cover all deliveries and thus provide duplicate warnings appears to be wasteful.

For these reasons we request that the inclusion of tank cars and trucks in the labeling component of the standard be treated as an amendment to the standard and proposed for public hearing and comment. In the meantime, we would appreciate clarification of the guidelines.

RECORD ID 2303

STANDARD NUMBER 1910.1200(c); 1910.1200(d)(1); 1910.1200(f)(2); 1910.1200(f)(1)(ii)
INFORMATION DATE 860115

ABSTRACT An interpretive letter regarding coverage of steel, aluminum, and other metals under the Hazard Communication Standard. During the section (d) hazard evaluation, a manufacturer must anticipate the uses to which a product will normally be put and consider the physical and health hazards characteristic of this use. If a product or material satisfies the requirements of section (d), then it is considered a hazardous chemical and aspects of the standard apply.

INTERPRETATION 29 CFR 1910.1200(c); 1910.1200(d)(1); 1910.1200(f)(2);
1910.1200(f)(1)(ii)

JAN 15, 1986

Mr. X has asked the Occupational Safety and Health Administration (OSHA) to respond to your letter of November 8, 1985, concerning the coverage of steel, aluminum, and other metals under the Hazard Communication Standard (HCS).

The HCS requires that manufacturers perform a hazard determination on products they sell. As part of the evaluation the manufacturer must anticipate the uses to which product will normally be put. Both physical and health characteristics must be considered during the hazard determination procedure.

If through this evaluation (see 29 CFR 1910.1200(d)) it is determined that a product does contain hazardous chemicals which may be released during its use, then the product is covered by the HCS and proper labels and MSDS must be transmitted. If this is not the case, however, the product may meet the standard's definition of an article: "a manufactured item: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which does not release, or otherwise result in exposure to, a hazardous chemical under normal conditions of use."

The HCS does not apply to products that meet the definition of an article. A hazard determination must be performed to establish this, however.

It is not OSHA's intent that all materials require material safety data sheets (MSDSs) and labels; rather, only those that are hazardous and present a possibility of employee exposure to the hazard.

SOURCE LETTER

NOV 8, 1985

The OSHA Communication Std. 1910.1200 is being interpreted as classifying steel, aluminum and other metals as "Hazardous Chemicals".

Accordingly, safety data sheets must be sent by us to each customer with each order of stampings or fabrications.

We are a job shop which basically shears, punches and forms these materials to our customer's specifications. We are also familiar with procedures for handling hazardous chemicals such as 1,1,1-trichloroethane in degreasers.

However, to include steel and aluminum fabrications under this category rather than isolating the very rare procedures that might create a hazard is a criminal waste of taxpayers money for both the administration of the standard and the increased cost of the product.

Even a cursory investigation by your staff should indicate the major amendments common sense would dictate.

We have always complied with every real health and safety regulation to the best of our ability and knowledge, but we feel that this present standard is not going to protect anyone - rather the voluminous reports will bury the now important safety data sheets coming in.

RECORD ID 2326

STANDARD NUMBER 1910.1200(g)(2); 1910.1200(g)(10)
INFORMATION DATE 850304

ABSTRACT An Interpretive Letter discussing the MSDS format for compliance with the Hazard Communication Standard. OSHA does not prescribe any fixed format for MSDSs, nor reviews and approves the formats selected by the various companies required to issue MSDSs, pursuant to the Hazard Communication Standard. However, 12 information categories must be reflected in an MSDS and are described in section (g)(2). Firms are free to format an MSDS any way they want, per section (g)(10), and to include additional information as well.

INTERPRETATION 29 CFR 1910.1200(g)(2); 1910.1200(g)(10)

MAR 4, 1985

This is in response to your letter of February 11 requesting information on the adequacy of your firm's planned MSDS format for compliance with the OSHA Hazard Communication and Labelling standard.

To begin with, the regulatory philosophy of the Reagan Administration is to provide the business community with maximum flexibility with respect to how compliance with regulatory objectives is achieved. Toward that end, OSHA is phasing out the use of the Form 20 which previously served as a format for MSDS sheets. We are not planning to prescribe any fixed format, nor are we in a position to review and approve the formats selected by the various companies required to issue MSDS's pursuant to the Hazard Communication standard.

However, the standard requires chemical manufacturers and importers to develop an MSDS for each hazardous chemical they produce (or if they are US importers) for products they import. These must be supplied, updated, and provided to purchasers in SIC codes 20-39 which comprises the manufacturing sector.

In order to assist you in reaching a decision on the final format of your firm's MSDS, I can provide you with a 12 item list drawn from the standard itself which comprises the information categories that must be reflected in the MSDS. Of course firms are free to format an MSDS any way they want, and to include additional information as well. The following categories of information must be included:

1. Product identity
2. Physical and chemical characteristics
3. Physical hazard
4. Health hazard
5. Routes of entry or exposure
6. Exposure limits
7. Carcinogenicity potential
8. Precautions for handling and use
9. Applicable control measures
10. Emergency and first aid procedures
11. Date of preparation and or change
12. Preparer and where additional information may be obtained.

RECORD ID 2362

STANDARD NUMBER 1910.1200(d)(5)(iv); 1910.1200(d)(5)(ii); 1910.1200(d)(5)(i)
INFORMATION DATE 860129

ABSTRACT An Interpretive Letter regarding the applicability of the Hazard Communication Standard to mixtures. The HCS requires that the hazards of mixtures be determined as a whole, or else that hazards be presumed for each component, based on the criteria in 1900.1200(d)(5).

INTERPRETATION 29 CFR 1910.1200(d)(5)(iv); 1910.1200(d)(5)(ii); 1910.1200(d)(5)(i)

JAN 29, 1986

This letter is in response to your October 24, 1985, request for an interpretation regarding the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard as it pertains to mixtures. Please accept my apology for the delay in responding. The overwhelming number of letters and telephone calls regarding the Hazard Communication has caused unavoidable delays in responding to the public's concerns.

In the example given in your letter, chemicals C and D, formed by chemical reaction of A and B, would be treated as new chemical entities for the purposes of hazard determination. You would then be required to evaluate the hazards of chemicals C and D. In cases where reaction does not proceed to 10 percent completion, the resulting chemicals would be treated as a mixture of chemicals C, D, and unreacted A and B. A hazard determination must then be accomplished by testing the mixture as a whole, or by assuming that the mixture contains components C, D, A and B.

RECORD ID 2388

STANDARD NUMBER 1910.1200(g)(2)(vii); (g)(3)
INFORMATION DATE 860528

ABSTRACT An Interpretive Letter discussing how to indicate carcinogenicity on material safety data sheets. The HCS requires that a material safety data sheet must include a completed space indicating carcinogenicity whenever a chemical is a carcinogen. A section for carcinogenicity does not otherwise have to appear on a material safety data sheet, per section (g)(2)(vii). However, if a space for carcinogenicity does appear, it must be marked to indicate it was not overlooked. No blank spaces are permitted on an MSDS, per 29 CFR 1910.1200(g)(3).

INTERPRETATION 29 CFR 1910.1200(g)(2)(vii); (g)(3)

MAY 28, 1986

MEMORANDUM

SUBJECT: Indication of Carcinogenicity on Material Safety Data Sheets

Attached for your information is a copy of an interpretation made for the (State) regarding the indication of carcinogenicity on material safety data sheets. Please inform all State and Area Offices in your Region of this interpretation.

MAY 21, 1986

This is in response to your letter dated April 29 to Mr. A, (City) Regional Office regarding the Hazard Communication Standard (HCS).

First, it appears from reading your letter to Mr. A that you may be under the misconception that an OSHA 174 is a required form. It is not a required form, nor is any material safety data sheet format required by the HCS.

Secondly, the standard specifies the minimum amount of information that is required on the material safety data sheet, such as physical and chemical characteristics. This type of information must always appear on the material safety data sheet. However, with carcinogens the standard requires that the material safety data sheet must state "whether" a chemical is a carcinogen, and not "whether or not" it is a carcinogen. Only when the condition is affirmative must this indication appear. A section for carcinogenicity would not even have to appear on a material safety data sheet if a chemical was not a carcinogen. However, if a space for carcinogenicity does appear on the material safety data sheet being used, then that area has to be addressed and no blank spaces are permitted; see 29 CFR 1910.1200(g)(3). If a chemical is not a carcinogen then phrases such as "no information found" or "not applicable" would have to be used in the space provided for carcinogenicity.

Concerning your question regarding compressed air, it is applicable under the standard's definitions for compressed gas and physical hazards.

SOURCE LETTERS

MAY 7, 1986

MEMORANDUM

SUBJECT: (State) Request for Interpretation of the Hazard Communication Standard

Forwarded for your response is a letter dated April 29, 1986, from Mr. S. requesting interpretations of two items in the Hazard Communication Standard, 29 CFR 1910.1200. The first is in regard to whether a

notation must be made on a Material Safety Data Sheet (MSDS) as to whether a substance is carcinogenic or not (reference 1910.1200(g)(2)(vii) and (g)(3)). The second question is in regard to whether compressed air is within the scope of the standard. We are transmitting the letter as the above issues are not officially addressed in the directive, CPL 2-2.38. Please send us a copy of your response to Mr. S.

APR 29, 1986

Please accept this correspondence as formally requesting interpretations on two subjects relating to 29 CFR 1910.1200, Hazard Communication Standard.

I have asked Mr. R, Industrial Hygienist, (State) OSHA Area Office, to determine if: (1) Material Safety Data Sheets require a "yes" or "no" if the substance is carcinogenic? (2) Is compressed air within the scope of the Standard? Mr. A discussed these issues with Mr. S of your office. In turn, Mr. R evidently talked with Mr. X of the National Office about these two issues.

We were advised a "no" is not required to be listed on the Material Safety Data Sheet. However, it appears to us that the new OSHA form 174 (September, 1985) requires "no" to be listed, if applicable, because this is marked "optional", as Section II allows. Also, there are question marks behind NTP, IARC Monographs and OSHA Regulations, in Section VI. Furthermore, 1910.1200(g)(2)(vii) and 1910.1200(g)(3) seem to require that a "yes" or "no" be indicated on the MSDS.

Concerning compressed air, we were advised that our assumption was correct that 1910.1200(c) (definitions) regulates compressed air as being under the standard.

We respectfully request written interpretations on these two issues. We are conducting in-house training on this standard on May 12, and would very much appreciate receiving this information prior to our training.

RECORD ID

2397

STANDARD NUMBER
INFORMATION DATE

1910.1200(g)(10); 1910.1200(g)(3); 1910.1200(d)(1)
860617

ABSTRACT

An Interpretive Letter regarding the applicability of the Hazard Communication Standard to waste oils. The HCS requires that chemical manufacturers and importers shall obtain or develop an MSDS for each hazardous chemical they produce or import. Therefore, a material safety data sheet must be provided for fuel oils made from low-flash solvents and waste oils when a product is being sold to manufacturing employers. Each MSDS must accurately and thoroughly reflect a product's characteristics. Generic MSDSs are permitted as long as section (g)(2) is satisfied.

INTERPRETATION

29 CFR 1910.1200(g)(10); 1910.1200(g)(3); 1910.1200(d)(1)

(No Date)

This is in response to your letter of June 17, concerning the application of the Hazard Communication Standard (HCS), reference 29 CFR 1910.1200 to your waste oils. Please accept my apology for the delay in response.

Your letter indicates that your company is considering the production of fuel oil from waste oils regulated under the Resource Conservation and Recovery Act (RCRA) administered by the U.S. Environmental Protection Agency (EPA). The process apparently entails the addition of low flash solvents to waste oils to produce usable fuel oils.

You ask whether or not material safety data sheets (MSDS) are required for the finished fuel oil product and ask for guidance on their completion.

MSDS are required when products containing hazardous chemicals are sold to employers in the manufacturing sector Standard Industrial Classification (SIC) codes 20-39. Assuming your fuel oil product is destined for such an establishment and its use presents a potential for employees to be exposed to a health or physical hazard, then a MSDS is required.

The Hazard Determination provision of the HCS (reference 29 CFR 1910.1200(d)) are used in conjunction with the appendices found at the end of the standard to evaluate the hazards of chemicals and chemical mixtures. Manufacturers may either test mixtures as a whole or report the effects of each of the hazardous components in a mixture. Each MSDS must accurately and thoroughly reflect the product's characteristics. Generic MSDS are permitted as long as this is accomplished.

SOURCE LETTER

JUN 17, 1986

(Company) is an emergency response contractor and small treatment and storage facility for hazardous waste currently operating under a part A permit from the U.S. Environmental Protection Agency. We are currently applying for our part B. One of the proposals under our part B is to accept waste or used oils (lubricating, motor, etc.), hazardous waste fuels, and waste or used solvents and to blend them into fuel oils. These fuel oils could fall into one of three categories; 1) Hazard waste fuels which could only be accepted by facilities permitted by EPA to burn hazardous wastes, 2) Off-spec fuel oils which would be acceptable boiler fuel, etc. for industry under EPA regulations, or 3) Spec fuel oils which would be acceptable for commercial or residential use.

The problem we are facing is how to approach the problem of preparing a material safety data sheet, and even when one is necessary. Obviously, hazardous waste fuels would be exempt under 29 CFR 1910.1200(a); (f); and (i) since it would be a RCRA regulated waste. And, if EPA does eventually classify all used oils as hazardous waste (they are currently unregulated) none of the spec or off-spec fuels would be usable in industry or private facilities, so they would also fall under RCRA. The question is, if we blend

materials which are sold and transported to us as hazardous wastes (i.e. Xylene, Toulene, and other low flash solvents) into non-regulated used oils and create a usable fuel oil, how should a material safety data sheet be prepared? Is one necessary? Should the status of the component parts, as wastes, be ignored? Since the blend will be to meet fuel characteristic, low flash solvents will be used interchangeably based on the availability of waste streams and blended based on characteristics of the used oil's base. Can we classify components generically and with wide ranges of percentages as ingredients?

I think you can appreciate the problem we are having with this. We will not be producing a product that will be highly consistent and we will be producing a product which, for all practical purposes, is nothing more than a destruction process for hazardous wastes. Furthermore, as a RCRA facility, our own employees aren't really covered by the Hazard Communication Standard, although we do inform them on the hazards of each individual waste stream.

RECORD ID

2398

STANDARD NUMBER
INFORMATION DATE

1910.1200(f)(5); 1910.1200(c); 1910.1000
860811

ABSTRACT

An Interpretive Letter regarding the applicability of the HCS to shipment of truck parts: A truck radiator, an engine, and a battery are not containers and therefore do not require labels, per (c), Definitions. However, containers that hold such chemicals as ethylene glycol and battery acids need to be labeled, as they meet the definition of a "hazardous chemical" under the standard, 1910.1200(c),(d).

INTERPRETATION

29 CFR 1910.1200(f)(5); 1910.1200(c); 1910.1000

AUG 11, 1986

This is in response to your letter of June 25 regarding the Hazard Communication Standard (HCS).

The HCS requires chemical manufacturers, importers, or distributors to ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged or marked. It is our interpretation that items such as a truck radiator, an engine, or a battery are not containers and therefore would not be required to be labeled. However, the containers that held such chemicals as ethylene glycol and battery acids would need to be labeled since they meet the definition of a "hazardous chemical" under the standard.

SOURCE LETTER

JUN 25, 1986

SUBJECT: 29 CFR Part 1910.1200 Hazard Communication

(Company) is a manufacturer of heavy duty trucks. The trucks as shipped to our customers, have ethylene glycol solution in the radiator, lubricating oil in the engine transmission and axles, battery fluids in the battery, to name a few. Our question concerns the applicability of the subject requirements for the vehicle operation.

Mr. S, of your office, in a recent telephone conversation with the writer advised that the subject regulation is not applicable to items on the vehicle that are functional requirements for vehicle operation.

RECORD ID 2399

STANDARD NUMBER 1910.1200(d)(3)(II); 1910.1200(d)(3)(I); 1910.1200(g)(2)(vi)
INFORMATION DATE 860818

ABSTRACT An Interpretive Letter as to the requirements for listing multiple exposure limits on MSDSs under the HCS. OSHA requires chemical manufacturers and importers to disclose all known and available exposure limits on MSDSs. From a compliance standpoint, a material safety data sheet must contain the OSHA permissible exposure limit (PEL), the ACGIH-TLVs, and any other exposure limit used or recommended by the chemical manufacturer, importer or employer preparing the MSDS, where available.

INTERPRETATION 29 CFR 1910.1200(d)(3)(II); 1910.1200(d)(3)(I); 1910.1200(g)(2)(vi)

AUG 18, 1986

This is in response to your letter of June 25 concerning the requirements for listing multiple exposure limits on material safety data sheets under the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS).

It is the intent of the standard that employees and manufacturing users have a fundamental right to know the existing exposure limits of the substances with which they work. OSHA therefore encourages chemical manufacturers and importers to disclose all known exposure limits on the material safety data sheets.

From a compliance standpoint the material safety data sheet must contain the OSHA permissible exposure limit (PEL), and any more protective exposure limit, if one or more exists. Failure to include a less protective exposure limit, other than the OSHA PEL, will be considered a de minimis violation and will not result in the issuance of a citation.

SOURCE LETTER

JUN 25, 1986

Re: MSDS - Exposure Limits

At (Company), we have established a policy of placing the most conservative exposure limit and the source, i.e. ACGIH, OSHA, on the Material Safety Data Sheet. We do not customarily list all TLVs, PELs, etc. We believe this practice is prudent, since it is not confusing to those reading the MSDS and does not cloud the primary objective of clear, effective hazard communication and well-founded precautionary information. In addition, this is good practice for averting liability claims.

I understand from Mr. G that OSHA Region 5 has already adopted this policy. We would like to see acceptance of this policy in all OSHA regions. We are requesting concurrence from Federal OSHA that we are required to designate only one exposure limit which will be the most conservative.

RECORD ID 2402

STANDARD NUMBER 1910.1200(f)(3); 1910.1200(g)(1)
INFORMATION DATE 860408

ABSTRACT An Interpretive Letter as to MSDS requirements of nondomestic shipments. Material safety data sheets are not required for export shipments. Conversely, if material is shipped from another country to the United States, an MSDS must be obtained or developed, per (g)(1). In either case, labeling is required to inform long-shoring and dock workers of the hazards of the cargo they are handling (f)(3).

INTERPRETATION 29 CFR 1910.1200(f)(3); 1910.1200(g)(1)

APR 8, 1986

Material Safety Data Sheets are not required for non-domestic shipments. However, labeling is required to inform long-shoring and dock workers the hazards of the cargo they are handling.

RECORD ID

2420

STANDARD NUMBER
INFORMATION DATE

1910.1200(b)(1); b(5)(iv); (c); (d)(1); 1910.1000
861002

ABSTRACT

An Interpretive Letter regarding high-speed cobalt steel drill bits evaluated as an "article" under the Hazard Communication Standard. High-speed cobalt steel drill bits are considered an "article" under the Hazard Communication Standard, 29 CFR 1910.1200(c), Definitions, if the hazard determination indicates that the manufactured item does "... not release, or otherwise result in exposure to, a hazardous chemical under normal conditions of use ..." and would not be regulated under the HCS. Blanket exemptions for specific products cannot be given, especially when the end use is unknown.

INTERPRETATION

29 CFR 1910.1200(b)(1); b(5)(iv); (c); (d)(1); 1910.1000

OCT 2, 1986

This is in response to your letters of August 19 and 26 regarding the "article" definition given under the Hazard Communication Standard, 29 CFR 1910.1200. Specifically, you asked if a drill bit meets this definition.

The "article" exemption can pose difficulties for manufacturers in determining whether their products meet the definition. The key to the definition of an "article," and thus exemption, is the requirement that the manufactured item does "... not release, or otherwise result in exposure to, a hazardous chemical under normal conditions of use " Many items appear to meet the definition in their manufactured form, but, manufacturers must consider their products' end use before the "article" exemption may apply.

Your letter states that you have been informed that if the drill bit is used properly, with a coolant, no dusts will become airborne; and that the steel will not heat up to the 1200-degree temperature necessary to release a toxic gas. The Hazard Communication Standard requires "chemical manufacturers" to evaluate the chemicals produced in their workplace to determine if they are hazardous. If your hazard determination indicates that downstream employees will not be exposed to any hazardous chemicals contained in your drill bit, then your product would meet the definition of an article.

The Occupational Safety and Health Administration (OSHA) cannot make an across-the-board determination of a products' exclusion as an "article." The standard's definition by its very wording imposes the need to make case-by-case evaluations. Consequently, a blanket exemption for specific products cannot be given by OSHA.

In most cases, based on our experience thus far, drill bits will be considered "articles" under the Hazard Communication Standard. However, there may be, circumstances beyond our ability to anticipate that may result in exposure to employees. In these instances the article exemption would not apply.

SOURCE LETTER

AUG 19, 1986

However I have been trying to obtain a definitive answer from Occupational Safety and Health office, both in (State) and Washington DC, thus far with no success.

I am referring to the classification of an article under the OSHA Standard, 1910.1200, (b) (5).

The standard lists three criteria that must be met to qualify as an article:

1. A manufactured item: which is formed to a specific shape or design during manufacture,

2. which has end use function(s) dependent in whole or in part upon its shape or design during end use.
3. which does not release, or otherwise result in exposure to a hazard chemical under normal conditions of use.

Here at (Company) Drill we manufacture drill bits. The body of these bits are fabricated of high speed or Cobalt steels. These steels have components which, in their raw form are toxic. However in the form that we receive the steel it is considered nontoxic.

I have contacted the Occupational Safety and Health office located in (City), (State) with the question, "Is a drill bit an article, under the OSHA Standard 1910.1200"? The answer that I received was yes a drill bit would qualify. The agent that I spoke to gave me the phone number of the (City) office of OSHA to verify his opinion.

When I called (City) I was told that since a drill heats up during operations, it could give off toxic gas, and therefore it is exempt from the article.

I asked the agent that I was speaking to if the Occupational Safety and Health Administration offices in Washington, DC could speak with more authority on this subject. I was told that indeed they could. I phoned the (City) office on Monday August 17, I spoke with an agent who, after hearing my description of a drill bit, agreed that this product would qualify as an article under the standard. The agent then transferred my call to a hygienist, for verification.

I spoke with a Mr. S, and after giving him the same description of a drill bit, it was his decision that our product would not qualify as an article.

In each case the deciding factor was the possibility that a toxic gas may be given off in the course of drilling a hole.

As stated in the OSHA Instruction CPL 2-2.38, page A-3 paragraph four, it states, "The "Article" exemption raises many questions. The Key to the definition of "article", and thus the exemption, is the term "under normal conditions of use"...". Further down the page there are three products that would meet the requirements to be considered an article. They are:

Stainless steel table
Vinyl upholstery
Tires

I have spoken to our insurance hygienist and he stated that he has never experienced high concentrations of airborne particles in the air in "the normal drilling operation".

OSHA personnel seem to feel that the drill will heat up during drilling operations to a point that a hazardous material will be in the atmosphere, exposing the user to a toxic or hazardous chemical. I have been told that the bit, if used properly, with coolant, the dusts will not become airborne, and the steel will not heat up to a 1200 degree temperature the material safety data sheet states is necessary to release toxic gas.

Since it appears that whether or not we would be judged an article seems to depend on which inspector was hearing our petition for an answer, I would like to have a hard copy on file for any OSHA inspector stating a drill bit is or is not an article.

Sir, when you spoke at our American Society of Safety Engineers conference in (City), you said that you came up as one of us. With that in mind please put yourself in my place. I would like to get a firm answer from OSHA, for the president of our company to the simple question, are our drill bits articles, or are they not?

RECORD ID

2978

STANDARD NUMBER
INFORMATION DATE

1910.1200(f)(5); 1910.1200(g)(10)
890501

ABSTRACT

An Interpretive Letter indicating that the Hazard Communication Standard does not require a particular labeling system code on the material safety data sheet. OSHA does not endorse specific products or services.

INTERPRETATION

29 CFR 1910.1200(f)(5); 1910.1200(g)(10)

MAY 1, 1989

This is in response to your letter of October 31, 1988, requesting that HMIS and NFPA labeling information be included on the material safety data sheet.

The preamble to the Hazard Communication Standard (HCS) recognizes the existence of numerous labeling systems that are currently in use in industry. Many of the systems rely on numerical or alphabetical codes to convey the hazards. Although, the intent of the standard is to permit the use of these systems for in-plant labeling, provided the entire hazard communication program is effective, the Occupational Safety and Health Administration (OSHA) does not endorse specific services or products. It would, therefore, be inappropriate for OSHA to require a particular labeling system's code on the material safety data sheet.

RECORD ID 3002

STANDARD NUMBER 1910.1200(d)(4)(ii); 1910.1200(f)(1)(ii); 1910.1200(f)(4);
1910.1200(d)(2); 1910.1000
INFORMATION DATE 880920

ABSTRACT An Interpretive Letter clarifying that crystalline silica is considered a carcinogen under the HCS. A national trade association request that OSHA not consider crystalline silica a carcinogen for purposes of communicating hazard information to employees under the HCS was denied. Chemical manufacturers and importers are required to evaluate the hazards of chemicals they produce or import and to transmit the information to employees and downstream employers in accordance with 1910.1200(d). Information as to evidence of carcinogenicity must appear on required labels and MSDSs about crystalline silica.

INTERPRETATION 29 CFR 1910.1200(d)(4)(ii); 1910.1200(f)(1)(ii); 1910.1200(f)(4);
1910.1200(d)(2); 1910.1000

SEP 20, 1988

This is in further response to your letter of May 23 which petitioned the Occupational Safety and Health Administration (OSHA) to clarify or amend the Hazard Communication Standard (HCS) with regard to its applicability to crystalline silica.

The petition, filed on behalf of the National (X) Association, requested that OSHA indicate that crystalline silica is not considered to be a carcinogen for purposes of communicating hazard information to employees under the HCS. For the reasons discussed below, the petition is hereby denied. Information regarding the evidence of carcinogenicity must be included on required labels and material safety data sheets for crystalline silica, and for products containing crystalline silica, where employee exposure to the crystalline silica may occur.

The HCS is designed to provide information to employees about the hazards of the chemicals they may be exposed to while working. The definitions of the hazards covered under the rule are intentionally broad to ensure that employees and downstream employers receive all relevant information about the chemical involved. OSHA has determined that lack of information regarding a chemical's hazards and appropriate protective measures constitutes a significant risk to exposed workers. The HCS is designed to address that risk by providing such information.

To accomplish that purpose, the rule requires chemical manufacturers and importers to evaluate the hazards of the chemicals they produce or import, and to transmit the information they find or develop to employees and downstream employers. All employers are then required to train their workers and make the available information accessible to them. Unlike OSHA's substance-specific standards, the rule does not establish permissible exposures for the chemicals involved, nor does it require implementation of specific control measures other than the transmittal of information. It is expected that provision of such information will nevertheless result in reduced exposures because employers will have better information to use when designing protective programs for their exposed employees. And those employees will be better able to take steps to protect themselves.

In order to ensure that all employees receive adequate information, it was necessary to establish a threshold for determining when a chemical is to be considered hazardous. For health hazards, if there is one study, conducted according to established scientific principles, which reports statistically significant evidence that the chemical poses the potential to cause an adverse health effect, the results of that study must be reported. (HCS, paragraph (d)(2)). This is an appropriate threshold for an information transmittal standard, which is intended to ensure that affected employees, as well as downstream employers, are aware of all existing scientific information regarding a chemical.

In addition to the one study criterion, participants in the rulemaking supported the need for further thresholds for chemicals that are considered to be hazardous by well-recognized scientific or regulatory organizations. The rulemaking record supports OSHA's conclusion that knowledge of these

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organizations' findings on a chemical is an important piece of information for affected employees and employers, separate and apart from an individual evaluation by a chemical manufacturer or importer of what they believe the scientific studies indicate a chemical's hazards are. See, e.g., 48 FR 53298-99, November 25, 1983.

Therefore, if OSHA has regulated a substance, the American Conference of Governmental Industrial Hygienists (ACGIH) has recommended a Threshold Limit Value (TLV) for it, or the National Toxicology Program (NTP) or the International Agency for Research on Cancer (IARC) have found the substance to be a potential or confirmed carcinogen, the substance must be considered hazardous and information provided as required. All of these organizations require substantial evidence before making a finding that a chemical presents a hazard, and it is important for users of such chemicals to be aware of what those findings are.

To address the concerns of those chemical manufacturers or importers that disagree with the findings of these organizations, the HCS specifically permits them to present negative data as well. (HCS, Appendix B.) They are also allowed to include on a MSDS their own evaluations of the chemical, as long as they do not state anything that is inaccurate or scientifically indefensible.

Contrary to the assertions in your letter, this is not a delegation of rulemaking authority to IARC or any of the other organizations involved. It is an assurance that all available information is provided, an approach that is necessary to provide employees with the right to know about the chemicals they are exposed to while working. The fact that IARC classifies a substance as a potential carcinogen is important information that is already public, and needs to be included with the hazard information provided to downstream employers and employees. The standard permits you to report whatever other negative information you believe is appropriate. Therefore, concerns of exposed employees, as well as the concerns of the producers of the chemicals, have been addressed in the regulatory design.

Generally speaking, IARC's determinations involve a review of scientific studies that are already available in the literature on a particular chemical. The existence of one such study is sufficient evidence for coverage under the HCS. Of course, crystalline silica poses various respiratory effects that must already be included on labels and material safety data sheets. In your letter, you indicate that companies have "generally advised their workers and customers that exposures to mineral dusts which contain silica may cause silicosis." This information is certainly required under the HCS for employers covered under OSHA's rules.

But in addition to the longstanding evidence of the respiratory effects caused by exposure to crystalline silica, there has also been evidence in the published scientific literature that there are potential carcinogenic effects. This evidence should already have been included in information regarding crystalline silica prepared under the HCS. Whether IARC had published a monograph on the subject or not, the pre-existing scientific information must be reported to be in compliance with the rule. The existence of an IARC evaluation of the data is simply an additional piece of important health information.

The requirement that IARC's evaluations be included in an employer's hazard determination process has been a provision of the standard since it was finalized in November of 1983. Challenges to that provision would have had to be filed within sixty days. The only challenge to the hazard determination provisions that was filed involved inclusion of more substances on the floor listing. The reviewing court found that OSHA's approach was appropriate. *United Steelworkers of America v. Auchter*, 763 F.2d 728, 739 (3d Cir. 1985).

Therefore, it is certainly not true that the public has not had advance notice of the Agency's approach to hazard determination. The HCS is a generic rule, covering as many as 575,000 hazardous chemical products, and the hazard determination process is not an approach that is to be reconsidered for each individual substance. The rule clearly indicates that the latest editions of IARC and NTP are to be used. One of the primary advantages of a generic approach is the dynamic nature of the rule, requiring chemical producers and importers to continually update the chemical hazard information provided to downstream employers and to employees as information becomes available. Certainly the rule cannot reasonably be interpreted to be limited to information available as of 1983. This clearly was not the intent, and would not protect workers to the extent feasible as required under the Occupational Safety and Health Act.

As described in the IARC monograph on silica, there are at least five animal studies in the published scientific literature which resulted in "significant increases in the incidence of adenocarcinomas and squamous cell carcinomas of the lung" in the animals exposed to crystalline silica. In addition, there are a number of epidemiological studies which show an increased incidence of lung cancer in workers exposed

to silica. As the HCS requires only one study to be considered sufficient evidence of carcinogenicity it is clear that in the case of crystalline silica the evidence exceeds that threshold for determining the existence of a hazard. In addition due to the weight of the evidence, a label warning as well as inclusion on an MSDS is warranted.

In addition to the scientific evidence which clearly indicates that information regarding potential carcinogenicity of crystal line silica must be made available under the HCS, the National Institute for Occupational Safety and Health (NIOSH) recently recommended to OSHA in another context that the substance be designated a carcinogen. In testimony presented at informal public hearings on OSHA's proposed rule on permissible exposures to air contaminants (August 1, 1988), NIOSH specifically stated that the final rule should designate that crystalline silica is a potential occupational carcinogen.

In the recent notice of proposed rulemaking to modify the HCS, OSHA solicited comments on the newly adopted American National Standards Institute's (ANSI) voluntary consensus standard on precautionary labeling 52 FR 29842 (August 8, 1988). Industry representatives involved in the development of that standard have indicated that it would be helpful if OSHA would consider labels developed in accordance with ANSI guidelines to be appropriate for compliance with the HCS. It is interesting to note that following the guidance of that industry standard, it appears to OSHA that silica would be labeled as a carcinogen.

The HCS only applies when there is a potential for exposure labeling requirements only apply when there is a container involved. As you have indicated that the industry in providing appropriate labels for silicosis, it appears that the companies have been able to determine when and where labels need to be provided. The addition of a cancer warning statement to these labels is required.

RECORD ID 3083

STANDARD NUMBER 1910.1200(e)(2); 1910.1200(b)(1)
INFORMATION DATE 900214

ABSTRACT An Interpretive Letter as to the applicability of the Hazard Communication Standard to independent contractors in booth rental beauty salons. The HCS requires compliance officers to determine if individuals are independent contractors or if an employer-employee relationship exists. Criteria for making such determinations are provided, as are criteria for determining the applicability of the OSH Act and HCS. Multiemployer worksites are defined and discussed.

INTERPRETATION 29 CFR 1910.1200(e)(2); 1910.1200(b)(1)

FEB 14, 1990

MEMORANDUM

SUBJECT: Application of the Hazard Communication Standard (HCS) to Independent Contractors

This is in response for your memo of November 14, 1988, (copy attached) requesting an interpretation of the applicability of OSHA standards at booth rental salons. We have received the following interpretation from the National Solicitor's office; please accept my apology for the long delay in this response.

To determine whether the HCS applies in the situation you describe, it is necessary to determine whether any of the individuals in the workplace are employers or employees under the OSH Act and the HCS. Neither the Act nor the HCS regulate relationships between independent contractors. Simply labeling operators or other workers as independent contractors or using a contractual agreement does not automatically transform those individuals into independent contractors or relieve a salon operator from responsibility as an employer. Instead, the compliance officer must examine the actual economic relationship between the individuals to determine if there is an employer/employee relationship.

To determine whether the HCS applies, a compliance officer must make two basic determinations. First, the officer should determine whether any of the entities engaged in the salon business are functioning as employers or employees under the OSH Act. There is no single criterion that may be used in making this determination. Instead, the compliance officer should use the criteria normally applied by the Review Commission and courts under the OSH Act to determine whether an employer/employee relationship exists. These criteria include the following:

1. Whom do the workers consider their employer, or do they consider themselves self-employed?
2. Who pays the workers' wages? Who establishes the level of wages? How are wages established?
3. Who has the actual power or ability to control the workers? Who actually directs or supervises the workers' daily and overall activities, assigns work, decides whether work is satisfactory, and establishes work schedules including hours of work vacation and sick leave?
4. Who has the responsibility, as opposed to the actual power, to control the workers?
5. Does the workers' ability to increase their income depend on simple efficiency rather than initiative, judgement or foresight? May the workers increase their income through the exercise of business judgement?
6. Who has control over the work environment such that hazards may be abated? Who owns or furnishes the equipment and physical worksite? And, especially pertinent to beauty salons and the HCS, who controls (and supplies) which chemicals (shampoos, dyes, etc.) are to be used?

The compliance officer should use these criteria developed by the Review Commission and courts under the OSH Act to determine if a salon owner, operator or other entity is in fact an employer of some or all of

the workers in the salon. The salon operator could in fact be the employer of all the salon workers including beauty operators, shampooists, receptionists, janitors, etc. Alternatively, the salon owner could be the employer of only the operators and maintain an independent contractor relationship with other workers. It is also possible that the beauty operators could be working as independent contractors for the salon owner and, at the same time, the operators could be the employers of other workers like shampooists or receptionists.

After the compliance officer has determined that an employer/employee relationship exists, a determination on the applicability of the HCS should be performed. As in all other work situations, the HCS applies if an employer is engaged in a business where chemicals are either used, distributed or produced and if an employee may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies.

In some situations, a beauty salon might qualify as a multi-employer workplace under the HCS. For example, each operator could act as an employer and hire an employee to shampoo and perform other work. The compliance officer would have to determine whether each operator and shampooist had an employer/employee relationship under the OSH Act criteria listed earlier. Then the compliance officer would have to determine if the HCS applied (does the operator use, distribute or produce chemicals in the business and is the shampooist actually or potentially exposed to hazardous chemicals). If more than one operator is an employer under the OSH Act and the HCS, then, the multi-employer worksite provision applies.

Attachment:

NOV 14, 1988

MEMORANDUM

SUBJECT:

1. Application of OSHA Standards/Haz-Communication to booth rental salons.
2. Definition of Multi-Employer Worksite.

This situation involves the following conditions:

Salon owners have learned that booth rental salons do not have to comply with OSHA standards. Supposedly operators of these salons are called independent contractors, not employees.

The cosmetologists in these salons work with identical chemicals in identical surroundings in identical atmospheres. These independent contractors are performing work and are exposed to hazardous materials.

Although, provisions of the Written Hazard Communication Program (e)(2)(i), which requires employers at multi-employer worksites to provide other employers with MSDS has been disapproved by OMD and cannot, until further notice be enforced, it is of great importance to define multi-employer worksites for the HCS program, as well as for applicable OSHA standards.

SOURCE LETTER

(No date provided)

This letter is in regard to the recently enacted "Right to Know" regulations for cosmetologists. I have the following Questions:

1. As a member of 3 different Salon Owners groups, I am writing to request 100 brochures titled "Play It Safe...Handle Hazardous Materials With Care," and any other written information available in the same quantity. Is there a charge? If these are not available in bulk, what is the fastest way for all of us to obtain the information we need?
2. I have recently learned that booth rental salons do not have to comply with the OSHA Standards. Supposedly these salons do not have to comply because each operator is an independent

contractor, not an employee. In the State of (State), I know this is not true, for if we use the IRS definition of independent contractor, these booth rental salons do not comply and a true employer-employee relationship exists. Does the owner's choice to evade taxes by calling a salon "booth rental" constitute sufficient criteria to them not to comply with the OSHA Standards? In every other way booth rental salons function and look identical to all other salons. The cosmetologists in those salons work with identical chemicals in identical surroundings in identical atmospheres. Why do they not also deserve the same protection and have the same "Right to Know" privileges?

3. If you do divide those who must comply from those who do not have to, using the independent contractor factor, exactly what criteria do you use as proof? I believe that a significant percentage (perhaps as high as 75-85%) of salon owners in this area will not have to comply and the remaining salons could represent themselves as booth renters to avoid compliance. Please define the criteria you will implement.

I believe this Hazardous Communication Standard is very important to our industry where the health of the cosmetologist is concerned. I also believe that booth rental/independent contractor status is simply a tax evasion tactic, and in no way should influence the safety intent of OSHA.

RECORD ID 3316

STANDARD NUMBER 1910.1200(b)(1); 1910.1200(g)(2)(vii); 1910.1200(d)(4); 1910.1000
INFORMATION DATE 900404

ABSTRACT An Interpretive Letter in response to diesel fuel manufacturers. OSHA mailed a letter to 240 diesel fuel manufacturers informing them of their obligation under the Hazard Communication Standard to include information on their diesel fuel material safety data sheets as to the potential carcinogenicity of diesel exhaust.

(NOTE: Prior to this interpretation, Record ID 1923 noted the applicability of the HCS to diesel fuels, including the hazards associated with the combustion of fuel.)

INTERPRETATION 29 CFR 1910.1200(b)(1); 1910.1200(g)(2)(vii); 1910.1200(d)(4);
1910.1000

APR 4, 1990

SUBJECT: Letter to Diesel Fuel Manufacturers

In accordance with then Acting Assistant Secretary Mr. M's testimony before the House Education and Labor Subcommittee on Health and Safety in August, 1989, the Occupational Safety and Health Administration (OSHA) recently mailed a letter to 240 diesel fuel manufacturers. This letter informs diesel fuel manufacturers of their obligation under OSHA's Hazard Communication Standard to include information regarding the potential carcinogenicity of diesel exhaust on their diesel fuel material safety data sheets. A copy of this letter is attached for your information.

MAR 14, 1990

The purpose of this letter is to provide diesel manufacturers with information regarding the Hazard Communication Standard's (HCS) requirement to include the hazards of diesel fuel exhaust on material safety data sheets (MSDS) for diesel fuel. The Occupational Safety and Health Administration (OSHA) is hereby alerting you that under the HCS requirements, recent information regarding the potential carcinogenicity of diesel exhaust must be included on the diesel fuel MSDS.

The HCS requires manufacturers to perform a hazard determination for the chemicals they produce. As part of the evaluation, the manufacturer must anticipate the intended uses of the product, and consider the potential physical and health hazards to which employees may be exposed as a result of those uses. For health hazards, evidence which is statistically significant and which is based on at least one positive study conducted in accordance with established scientific principles, is a sufficient basis for a hazard determination and must be reported on the MSDS.

Diesel fuel exhaust is produced as a result of combustion, which is a normal condition of use for diesel fuel. Any health or physical hazards associated with the exhaust must therefore be included on the MSDS. In addition to respiratory irritation and reversible pulmonary effects of exposure to diesel exhaust, in August, 1988, the National Institute for Occupational Safety and Health (NIOSH) released Current Intelligence Bulletin 50, Carcinogenic Effects of Exposure to Diesel Exhaust, which summarizes recent studies on the potential carcinogenicity of diesel exhaust. NIOSH concluded in this bulletin that the toxicologic and epidemiologic findings suggest a "potential occupational carcinogenic hazard exists in human exposure to diesel exhaust." Under the HCS requirement to examine all relevant data when performing the hazard determination, these studies which indicate the potential carcinogenicity of diesel exhaust must be included as part of the overall evaluation and the carcinogenic hazards must be noted on the MSDS. Manufacturers, importers or employers may also report the results of other scientifically valid studies which tend to refute the findings of hazard. However, the positive data must always be reported.

Therefore, your diesel fuel MSDS must reflect the potential carcinogenicity of diesel exhaust. As with all OSHA standards, actions not consistent with the provisions of the HCS are subject to OSHA review and citation. The provisions of the HCS regarding updating MSDS to reflect new information require such data

to have been added within 3 months after publication of the NIOSH CIB (which would have been by the end of November, 1988).

RECORD ID

3739

STANDARD NUMBER
INFORMATION DATE

1910.1200(f)(5)(i); (f)(5)(ii); (f)(7); (h)(2)(iv); (Appendix A)(7)
900717

ABSTRACT

An Interpretive Letter on the labeling requirements of the HCS. The focus is on adding target organ effects on labels to meet the court's interpretation of "Appropriate Hazard Warnings." Appendix A of the HCS makes it clear that employees must be apprised of "the change in body function" associated with employee exposure and the "signs and symptoms that may occur" from working with hazardous materials. CPL 2-2.38B discusses the effectiveness of in-plant labeling systems, specifically systems that "rely on numerical and/or alphabetic codes to convey the hazards." Although these labeling systems may not convey the target organ effects, the intent of the standard is to permit the use of these systems for in-plant labeling as long as the entire Hazard Communication Program is effective. CSHOs shall evaluate program effectiveness through a review of each employer's training program and MSDS procedures.

INTERPRETATION

29 CFR 1910.1200(f)(5)(i); (f)(5)(ii); (f)(7); (h)(2)(iv); (Appendix A)(7)

JUL 17, 1990

Thank you for your letter of June 12, regarding the labeling requirements of the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS), 29 CFR 1910.1200.

In your letter, you make reference to Secretary of Labor v. Hilton-Davis Chemical Company, et. al., OSHRC Docket No. 86-494, in which it was concluded that the "appropriate hazard warnings" required under subparagraph (f)(1) of the HCS for labels on shipped containers of hazardous chemicals must include information on the target organ effects that are associated with exposure to the hazardous chemical. Your letter poses several questions regarding employers' responsibilities for labeling of in-plant containers of hazardous chemicals. Your letter incorrectly refers to subparagraph (f)(4); (f)(5) is the subparagraph of the HCS that sets forth in-plant labeling requirements. In your letter, you requested clarification on three specific labeling situations:

Question 1:

Our portable containers, not intended for immediate use, are labeled with a system similar to the paint manufacturers labeling system in the Hilton-Davis case. Do we need to add target organ effects to these labels in order to meet the courts interpretation of "Appropriate Hazard Warnings"?

Answer:

Appendix A of the HCS makes it clear that employees must be apprised of "the change in body function" associated with employee exposure and the "signs and symptoms that may occur." OSHA's program directive on Hazard Communication, CPL 2-2.38B, "Inspection Procedures for the Hazard Communication Standard" states that the definition of "hazard warning" under the HCS must convey the hazards of the chemical and is intended to include target organ effects. The same Instruction also discusses the effectiveness of in-plant labeling systems, specifically systems that "rely on numerical and/or alphabetic codes to convey the hazards." The Instruction provides as guidance this discussion:

"Although these labeling systems may not convey the target organ effects, the intent of the standard is to permit the use of these systems for in-plant labeling as long as the entire Hazard Communication Program (HCP) is effective. CSHOs Compliance Safety and Health Officers shall evaluate the effectiveness of in-plant labeling systems through a review of the employer's training program and MSDS procedures. An effective program is one that ensures that employees are aware of hazardous effects (including target organ effects) of the chemicals they are potentially exposed to as well as meeting the other basic requirements of the standard. Hazard warnings used as part of in-plant labeling systems, in combination with the HCP Hazard Communication

Program, are effective when they promote safe handling and use of hazardous chemicals in the workplace."

This means that employers relying on a labeling system such as the HMIS system must augment their hazard communication employee training program to specifically address the target organ effects that may not be discernible from a numerical warning system.

Question 2:

We provide uniform labels on all materials coming into our facility. These labels are what employees are trained to recognize under our hazard communications program, and are produced as a result of a review of the manufacturers MSDS and label, and a review of the available literature on the hazards of the ingredients in the manufacturers material. Would labels under this type of system need to have target organ effects included on them?

Answer:

As discussed above in our response to your first question, the Agency has recognized employer use of existing numerical or otherwise coded labeling systems for in-plant labeling situations, but does require the augmentation of the use of such a system if target organ effects are not conveyed by those labels. If you are developing your own in-plant labeling system for all materials coming into your facility, you may want to consider including target organ effects on the labels you are developing to eliminate the need for increased employee training in this area.

Question 3:

We have processes which must run continuously until completed, overlapping several shifts. These processes have need of chemicals in small quantities which are used only in the immediate production process, and which all shifts of employees are familiar with. Could the containers for these chemicals be considered exempt from labeling requirements under the "immediate use" exclusion of 29 CFR 1910.1200(f)(6)? Your letter incorrectly refers to paragraph (f)(6), the immediate use provisions are set forth in paragraph (f)(7).

Answer:

No. The provisions at (f)(7) are applicable only to containers that will be used by the person who transferred the chemical from the labeled container. Containers containing hazardous chemicals that will be utilized by employees other than the one performing the transfer, including employees on other shifts, must be labeled with the information required by paragraph (f)(5).

SOURCE LETTER

JUN 12, 1990

We have found a great deal of confusion within industry and within the OSHA system concerning employer labeling requirements. Would you provide us with an opinion from your office on our responsibilities for labeling, based on the following information.

The judge in the recently concluded Hilton-Davis case found that:

1. "appropriate hazard warnings", in the Hazard Communications Standard, means "Target Organ Effects", and
2. This language is used not only in the labeling requirements for manufacturers, but also in the labeling requirements for employer generated labels in 29 CFR 1910.1200(f)(4):

"...the employer shall ensure that each container of hazardous chemicals in the workplace is labeled, tagged, or marked with the following information:

- (i) Identity of the hazardous chemical(s) contained therein; and
- (ii) Appropriate hazard warnings." (emphasis added)

As an employer we have three circumstances which need to be addressed:

1. Our portable containers, not intended for immediate use, are labeled with a system similar to the paint manufacturers labeling system in the Hilton-Davis case. Do we need to add target organ effects to these labels in order to meet the courts interpretation of "Appropriate Hazard Warnings"?
2. We provide uniform labels on all materials coming into our facility. These labels are what employees are trained to recognize under our hazard communications program, and are produced as a result of a review of the manufacturers MSDS and label, and a review of the available literature on the hazards of the ingredients in the manufacturers material. Would labels under this type of system need to have target organ effects included on them?
3. We have processes which must run continuously until completed overlapping several shifts. These processes have need of chemicals in small quantities which are used only in the immediate production process, and which all shifts of employees are familiar with. Could the containers for these chemicals be considered exempt from labeling requirements under the "immediate use" exclusion of 29 CFR 1910.1200(f)(6)?

RECORD ID 4409

STANDARD NUMBER 1910.1200(g)(6); 1910.1200(b)(2)
INFORMATION DATE 910611

ABSTRACT

This letter answers several question concerning the Hazard Communication Standard and its application to employees who prepare and administer drugs/medications.

- 1) Tablets or pills that are designed to be dissolved or crushed by employees prior to administration to a patient are not in "final form," and are covered by the Hazard Communication Standard (HCS).
- 2) Liquid drugs that are hazardous chemicals are covered if there is a potential for employee exposure to them.
- 3) Manufacturers and distributors of hazardous chemicals are required to provide an MSDS with the first shipment to downstream employers and with the first shipment after the MSDS is updated. Employers must have MSDSs for each hazardous chemical in the workplace to which employees are exposed. If an MSDS is not received with the shipment, the employer must obtain one.
- 4) The frequency of exposure to a drug, ointments, alcohol, and other similar items does not affect the application of the HCS; coverage is not determined by the frequency of employee exposure.

INTERPRETATION 29 CFR 1910.1200(g)(6); 1910.1200(b)(2)

JUN 11 1991

Dear Mr. R:

This is in response to your letter of November 27, 1990 to Mr. P, Director, Office of Federal Agency Programs, concerning the Occupational Safety and Health Administration (OSHA) standard, 29 CFR 1910.1200, the Hazard Communication Standard (HCS) and its application to employees who prepare and administer drugs/medications. Please accept our apology for the delay in response.

1. Question - "In what ways does the HCS apply to hospital employees who mix and/or repackage drugs/medications, for dispensing to patients? For example, Tylenol may be dissolved or crushed by one employee for administration by another. Paragraph (b)(6)(viii) of the HCS does not define "final form;" it is therefore unclear whether or not the paragraph applies to tablets or pills which have been dissolved or crushed."

Response - Tablets or pills which are designed to be dissolved or crushed by employees prior to administration to a patient are not in "final form," and are covered by the HCS. There may be situations (such as the Tylenol example) where a tablet or pill is dissolved or crushed for purposes of administration when that is not generally the way it is dispensed. The final form exemption would apply in this situation.

2. Question - "Similarly, to what extent does the HCS apply to drugs and medicines in liquid form (e.g., alcohol, Betadine) which are diluted and/or repackaged before administration or application?"

Response - Liquid drugs which are hazardous chemicals would be covered if there is a potential for employee exposure to them.

3. Question - "What are the requirements to obtain Material Safety Data Sheets from manufacturers on drugs/medications and other products which are not received by a hospital in final form?"

Response - Manufacturers and distributors of hazardous chemicals (including drugs/medications that are not otherwise exempted from the rule) are required to provide a Material Safety Data Sheet (MSDS) with the first shipment to downstream employers (including hospitals), and with the first shipment after the MSDS is updated. Employers must have MSDSs for each hazardous chemical in the workplace to which employees are exposed. If one is not received with the shipment, the employer must obtain one.

4. Question - "To what extent are employees who administer a unit dose of a drug/medication, prepared by an in-house pharmacy, covered by the HCS?"

Response - The frequency of exposure to the drugs has no impact on coverage.

5. Question - "To what extent does the frequency with which ointments, alcohol, or other similar items are used by an employee on patients impact on how that employee is covered under the HCS?"

Response - The frequency of exposure does not effect the application of the HCS. Coverage under the HCS for ointments, alcohol and other similar items is not determined by the frequency of employee exposure. The employer is required to comply with the MSDS and training requirements in the HCS for any ointment, alcohol, or similar medication in liquid form that the manufacturer has found to be hazardous (as defined in the HCS).

OSHA included a discussion of the coverage of pharmaceuticals in the preamble to the August 8, 1988 notice of proposed rulemaking (NPRM) which was published in the Federal Register. A copy of this document, with the discussion marked, is enclosed for your use.

We hope this information will be helpful to you.

SOURCE LETTER

NOV 27 1990

Dear Mr. P:

The Department of (Government Agency) would like your assistance in clarifying the Hazard Communication Standard (HCS), 29 Code of Federal Regulations 1910.1200 with regard to drugs/medications.

Specifically, we would like information regarding the following:

In what ways does the HCS apply to hospital employees who mix and/or repackage drugs/medications, for dispensing to patients? For example, Tylenol may be dissolved or crushed by one employee for administration by another. Paragraph (b)(6)(viii) of the HCS does not define "final form;" it is therefore unclear whether or not the paragraph applies to tablets or pills which have been dissolved or crushed.

Similarly, to what extent does the HCS apply to drugs and medicines in liquid form (e.g., alcohol, Betadine) which are diluted and/or repackaged before administration or application?

What are the requirements to obtain Material Safety Data Sheets from manufacturers on drugs/medications and other products which are not received by a hospital in final form?

To what extent are employees who administer a unit dose of a drug/medication, prepared by an in-house pharmacy, covered by the HCS?

To what extent does the frequency with which ointments, alcohol, or other similar items are used by an employee on patients impact on how that employee is covered under the HCS?

RECORD ID

4185

STANDARD NUMBER
INFORMATION DATE

1910.1200(d)(3)(ii); 1910.1000; 1910.1200(a)(2); 1910.1200(d)(3)(i)
910319

ABSTRACT

An Interpretive Letter regarding vegetable oil mist and nuisance dusts. OSHA issued new enforcement policies with regard to hazard communication requirements for substances formerly designated as "nuisance dusts." CPL 2-2.38C states that the HCS applies to any substance with a specific OSHA PEL, regardless of the health effects. All chemicals with a specific OSHA PEL or a specific ACGIH Threshold Limit Value (TLV) are automatically covered under the HCS and an MSDS and label must be transmitted downstream by the chemical manufacturer or importer. Vegetable oil mist was assigned a specific OSHA PEL in the revision to the Air Contaminants Standard, effective September 1, 1989, and therefore falls under the HCS.

INTERPRETATION

29 CFR 1910.1200(d)(3)(ii); 1910.1000; 1910.1200(a)(2);
1910.1200(d)(3)(i)

MAR 19, 1991

Thank you for your letter of December 19, 1990, regarding our meeting of the previous day during which we discussed the Occupational Safety and Health Administration's (OSHA) enforcement of the Hazard Communication Standard (HCS), 29 CFR 1910.1200 as it relates to "vegetable oil mist."

As discussed in your letter and its attachments, in OSHA's recently revised compliance directive, OSHA Instruction CPL 2-2.38C, "Inspection Procedures for the Hazard Communication Standard," the agency issued new enforcement policies with regard to hazard communication requirements for substances formerly designated as "nuisance dusts." CPL 2-2.38C states that any substance with a specific OSHA Permissible Exposure Limit, (PEL), regardless of the health effects, is covered by the HCS.

As discussed in our meeting of December 18, the new language in the compliance directive was added to ensure consistency with the requirement of the HCS that any substance with an OSHA PEL be considered one of a "floor" of hazardous chemicals covered under the HCS. All chemicals with a specific OSHA PEL or a specific ACGIH Threshold Limit Value (TLV) are automatically covered by the HCS and an MSDS and label must be developed and transmitted downstream by the chemical manufacturer or importer. "Vegetable oil mist" was assigned specific OSHA PELs in the revision to the Air Contaminants Standard (29 CFR 1910.1000, Subpart Z, January 19, 1989).

The previous compliance directive for the HCS, CPL 2-2.38B, had provided specific guidance for situations where a chemical manufacturer or importer did not produce a label or MSDS for any substance listed in Appendix D of the 1987-88 ACGIH TLVs as an example of a "nuisance dust" and for which a valid hazard determination showed that the substance presented no potential hazard to exposed employees "other than being a nuisance." In these situations, a violation of the HCS would have been considered by OSHA to bear no direct or immediate relationship to safety and health. In those instances, any violation for the lack of an MSDS or label for these substances would have been classified as "de minimis."

Your letter states that OSHA's new policy does not allow the "de minimis" consideration but does require an MSDS and a label for substances such as vegetable oil mist which, under the old policy, would have been considered on the basis of the existing ACGIH TLVs and their physical irritant effects only. The new policy does not address the "de minimis" classification for lack of MSDSs and labels for vegetable oil mist and other substances that have been assigned specific OSHA PELs even though the evidence suggests that they do not present a physical or health hazard other than physical irritation. In the 1989 Air Contaminants final rule, OSHA included a new category for compounds formerly designated as "nuisance dusts." This new category is entitled "Particulates Not Otherwise Regulated" (PNOR) and sets PELs for compounds in this category at 15 mg/m³ total dust, 5 mg/m³, respirable. According to your letter, OSHA's policy to require MSDSs and labels for substances with specific PELs but which otherwise are no different from PNORs as to their health effects and even have the same numerical PEL values is "inconsistent and without justification."

After carefully reviewing this issue, we agree that, while this policy is consistent with the Hazard Communication Standard's requirement that any substance with a specific OSHA PEL is automatically covered by the HCS as one of the "floor" of hazardous chemicals, your argument is persuasive. Thus, even though employers and employees should expect that a substance with a specific OSHA PEL would require a MSDS and label to be transmitted downstream, in consideration of the evidence discussed, if a chemical manufacturer's hazard determination produces evidence that the substance poses no hazard (including potential hazard) to exposed employees other than being a physical irritant, then the Agency will consider the lack of an MSDS and/or a label to have no direct or immediate relationship to safety and health. As such, any violation for these deficiencies would be classified as "de minimis."

This is consistent with OSHA's previous policy which sets forth the same citation guidance. Again, since the health effects data and the PELs are identical to those of PNORs, OSHA will change its enforcement guidance currently given in CPL 2-2.38C, page A-11, to be similar to guidance given in the previous instruction, CPL 2-2.38B. We will communicate this change to our field staff initially by memorandum, then follow by the issuance of a change to the directive.

A copy of our memo to our Regional Administrators is enclosed for your information. We would like to stress, however, that this change is a change in violation classification only. Chemical manufacturers or importers of the types of "nuisance dust" compounds discussed herein are still required under the standard to develop and transmit MSDSs and labels for these substances with specific OSHA PELs. This change in enforcement policy merely states that where a properly-conducted manufacturer's hazard determination shows physical irritation to be the only health effect, the lack of a label or MSDS for these substances with PELs and health effects data identical to other PNORs will be considered a "de minimis" violation.

RECORD ID**4187**

**STANDARD NUMBER
INFORMATION DATE****1910.1200(a)(2); (b)(1); (d)(1); (g)(2)(i)(B); (g)(6)
910404**

ABSTRACT

An Interpretive Letter as to MSDS requirements on scrap materials under the OSHA HCS 1910.1200, after a company requested OSHA's review of its MSDS production process. The currently enforceable rule was published in the Federal Register on August 24, 1987. This final rule expanded the scope of the standard beyond only the manufacturing sector to all industrial segments. Information must be transmitted to all downstream employers whose employees are exposed or potentially exposed to the hazardous chemicals, and not just to those involved in manufacturing operations. OSHA does not approve hazard determination processes or MSDSs in advance of actual enforcement inspections.

INTERPRETATION**29 CFR 11910.1200(a)(2); (b)(1); (d)(1); (g)(2)(i)(B); (g)(6)****APR 4, 1991**

Thank you for your letter of February 4, addressed to Ms. S, regarding material safety data sheet (MSDS) requirements for scrap materials under the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS), 29 CFR 1910.1200. Your letter transmitted a copy of several different data sheets that have been developed by your company, (Company), along with your request that we review your hazard determination and MSDS production process for scrap commodities for compliance with the requirements of the HCS.

There are several points in your letter that we would like to clarify. First, you refer to the November 25, 1983, final rule on Hazard Communication. The currently-enforceable rule was published in the Federal Register on August 24, 1987, (a copy is enclosed for your reference). This final rule expanded the scope of the standard beyond only the manufacturing sector to all industrial segments. Your statement, therefore, that "We realize that the scrap recyclers are only required to pass along information to manufacturing customers when the scrap recyclers receive labels and MSDS's from employers who had scrapped the materials" is incorrect; information must be transmitted to all downstream employers with employees exposed or potentially exposed to the hazardous chemicals, not just those involved in manufacturing operations.

Secondly, OSHA has recently issued, on October 22, 1990, an update to its enforcement policies and procedures guidance document written as an aid for our enforcement staff to utilize during inspections for compliance with the HCS. This document,

OSHA Instruction CPL 2-2.38C, is also enclosed for your reference and information and contains guidance you may find useful with regard to the applicability of the standard to scrap dealers (see, specifically, Appendix A, page A-29).

OSHA does not approve hazard determination processes or material safety data sheets in advance of actual enforcement inspections.

Any MSDSs utilized must be consistent with the guidance set forth by the final standard and interpretations made by the Agency. While OSHA does allow the use of a "generic" data sheet where the evidence supports the fact that a class or family of chemicals presents similar health hazards, any specific information that the chemical manufacturer has with regard to specific hazards must appear on the MSDS and label as appropriate. As pointed out in our compliance instruction, if the supplier of the scrap added hazardous chemicals to the material, the supplier is responsible for providing a label and MSDS to the scrap dealer that addresses the additional hazard. We note that you have provided general language at the beginning of the data sheets you transmitted to us with your letter that warns that such additional hazardous chemicals "may or may not be present." Again, if the supplier has knowledge of the presence of any specific additional hazardous chemicals, that specific information must be passed to the downstream employer(s); a general warning such as provided on your data sheets is not acceptable.

As discussed in OSHA's May 23, 1986, letter to Mr. M. that you reference in your letter to us, MSDSs developed by trade associations are acceptable for use by employers if the information on them is accurate and complete. However, the scrap dealer utilizing the sheet is responsible for its accuracy and content. We note, after a brief review of the data sheet you supplied for "Bronze Scrap," that information on the health hazards associated with occupational exposure to lead is not mentioned in the "health hazards" section. Since lead is listed as one of the hazardous ingredients, information on the health effects of lead must be reported on the MSDS. We did not review the other sheets you sent with your letter, but all of the sheets you develop must similarly contain accurate information in all the required reporting categories or their use would result in the exposing employer being in violation of the HCS.

SOURCE LETTER

February 4, 1991

RE: Material Safety Data Sheet Development ; Hazard Communication Standard 29 CFR 1910.1200

(Company) (RCI) has been retained by a national association of scrap material recyclers to perform hazard determinations and develop Material Safety Data Sheets (MSDS) for several of the materials their members provide to customers. This association has requested that we explain our approach and methodology. Therefore, we are requesting your consultative assistance by evaluating our hazard determination and MSDS production process relative to the requirements of the Hazard Communication Standard (HCS) (29 CFR 1910.1200) promulgated by the Occupational Safety and Health Administration (OSHA) on November 25, 1991. Your consultative review of our methodology and your subsequent response would be greatly appreciated.

We realize that the scrap recyclers are only required to pass along information to manufacturing customers when the scrap recyclers receive labels and MSDS's from employers who had scrapped the materials. (Reference interpretation letter to Mr. M from Mr. J., Directorate of Field Operations - ALM/523-8036/N3104 File.) In reality, this transfer of information from employers to the scrap dealers is seldom completed according to the requirement of the HCS. Also, many scrap recyclers receive materials from individuals and others who are not subject to the requirements of the HCS. Even though the HCS does not require scrap recyclers to prepare MSDS's, many of their customers do as a matter of business because of the requirements placed upon them by the HCS. Therefore the recyclers desire that informative and up-to-date MSDS's and labels, which comply with the spirit and letter of the HCS, be made available for distribution to their customers. By taking this action, I believe you will agree that the scrap recyclers are exceeding the requirements of the HCS as it applies to this issue.

Our hazard determination process has involved the identification of ingredients known or thought to be present in a given scrap commodity. This identification process has been accomplished by reviewing available MSDS's from manufacturers of the original materials, by reviewing various process and industrial hygiene reference sources, and by reviewing analytical data gathered through research involving the scrap materials.

After the ingredients were known, we identified the various hazards according to Appendix B in the HCS. This identification process involves a review of the sources of information listed in Appendix C of the HCS, as well as, other available databases.

This research yields the data necessary to complete a useful MSDS for the recyclers' customers. The MSDS format is essentially similar to OSHA

We recognize in certain instances there may be a possibility that scrap could contain small quantities of contaminants that are not identified in the review processes and, therefore, not listed on the MSDS. We have warned the users of this possibility. However, if the users comply with the precautions suggested on the MSDS, overexposures would be unlikely and significant physical hazards would be controlled.

We also recognize that paints and coatings can be a problem with the scrap materials. A general statement has been included with each MSDS warning that these paints and coatings present hazards that should be controlled. The paints may contain toxic metals that may produce an exposure during welding, cutting, grinding, etc. This potential has been described and suggested controls have been identified.

There are unique issues that need to be addressed in this process. The scrap recyclers are genuinely sincere in their attempts to comply with the regulation and provide their customers with the health and safety data necessary for safe use of their products.

RECORD ID 4347

STANDARD NUMBER 1910.1200(f)(1); 1910.1200(f)(7); 1910.1200(b)(5)(i)
INFORMATION DATE 910508

ABSTRACT If a Hazard Communication Standard (HCS) officer finds an unlabeled container of pesticide in a workplace, the employer should be cited for violating the labeling provisions of the HCS unless the item is exempt from the portable container provisions; the employer can demonstrate that the chemical is not hazardous and therefore not subject to the HCS; or the employer can demonstrate that the chemical is subject to labeling requirements of the EPA (or other Federal agency) by producing the appropriate label.

INTERPRETATION 29 CFR 1910.1200(f)(1); 1910.1200(f)(7); 1910.1200(b)(5)(i)

MAY 8, 1991

MEMORANDUM

SUBJECT: Hazard Communication Standard - Pesticide Labeling

This is in response to your memorandum of January 28, and follow-up of April 16, requesting an interpretation of the labeling requirements of the Hazard Communication Standard (HCS) with regard to containers of pesticides. In your memo you question whether OSHA can cite an employer when an unlabeled container of a pesticide is found in the workplace. Your conclusion appears to be that OSHA cannot cite since the pesticide is "subject" to EPA pesticide labeling requirements, whether the label is present or not.

If OSHA is certain that the chemical is a pesticide -- and that the lack of a label is therefore a violation of EPA's requirements and not OSHA's -- no citation would be issued, but a referral would be made to EPA. However, the CSHO cannot objectively ascertain that the container holds a covered pesticide unless an appropriate pesticide label -- with an EPA registration number -- is produced by the employer. Existence of such a label needs to be established for OSHA to be certain that the chemical is an EPA-regulated pesticide. This is particularly important since many pesticides are used for other purposes (e.g., carbon tetrachloride and ethylene dibromide).

Thus, from a practical perspective, if the CSHO finds an unlabeled container of chemicals in the workplace, the employer should be cited for violating the labeling provisions of the HCS unless: 1) it is exempted under the portable container provisions; 2) the employer can demonstrate that the chemical is not hazardous, and therefore not subject to the HCS; or 3) the employer can demonstrate that the chemical is subject to labeling requirements of EPA (or other Federal agency) by producing the appropriate label.

If the appropriate pesticide label is produced after the citation is issued, we will withdraw it upon proof that the chemical is covered under EPA regulations.

SOURCE LETTER

January 28, 1991

MEMORANDUM

SUBJECT: Hazard Communication Standard - Pesticide Labeling

Questions has arisen concerning the need to label pesticides according to the Hazard Communication Standard (HCS).

The standard states in section (b)(5) that pesticides, as defined in FIFRA, are not required to be labeled under the HCS when "subject to the labeling requirements" of FIFRA. This clearly states that HCS labeling

requirements can not be cited for containers of pesticides, even if the pesticide containers are not labeled in accordance with FIFRA since the pesticides are still subject to the FIFRA labeling requirements. Statements have been made that OSHA should cite under the HCS if pesticide containers are not labeled in accordance with FIFRA. It does not appear that these statements would be able to be supported. Confusion has apparently arisen due to an erroneous reading of (b)(5) as stating that the exception applies when labeled in accordance with FIFRA. Since section (b)(5) clearly does not state this, the labeling exemption under the HCS would not be affected by the failure to label in accordance with FIFRA.

Preliminary discussion on this issue has been held with MR. P of the Solicitor's office. It is requested that a legal opinion be rendered.

RECORD ID 4078

STANDARD NUMBER 1910.1200(b)(2); (h)(2)(i); 1910.1000
INFORMATION DATE 901119

ABSTRACT An Interpretive Letter regarding HCS applicability to hazardous byproducts, such as those of ozone-generating operations. Manufacturers of "high energy machines", welding machines and photocopiers are not considered chemical manufacturers under the HCS, as they produce machines and not chemicals for use or distribution to downstream employers. Because ozone is not generated by a welding rod or flux, but rather results from the ionization of the air surrounding an arc or high-voltage gap, ozone is not a byproduct of welding rods or photocopier chemicals, but of the welding or photocopying process. Ozone generated in this fashion does not fall within the scope of 1910.1200(b)(1), but should be addressed in an employer's Hazcomm program.

INTERPRETATION 29 CFR 1910.1200(b)(2); (h)(2)(i); 1910.1000

NOV 19, 1990

MEMORANDUM

SUBJECT: Hazard Communication Standard and Ozone- Generating Operations

This is in response to your memorandum of September 19, regarding the applicability of the Hazard Communication Standard (HCS) to workplace machinery and operations that generate ozone as a by-product during normal operation. Your memo specifically mentioned the production of ozone generated during welding operations, or produced by high energy or photocopier machines, etc.

Although by-products are covered by the HCS, the standard only requires chemical manufacturers or distributors to anticipate the downstream workplace uses of their chemical products and as part of their hazard determination procedures, account for worker exposure to hazardous by-products that may be formed during normal conditions of use. Under the HCS, the manufacturers of welding rods or other chemical products that are utilized during welding and other operations which are capable of resulting in employee exposures would be responsible for chemical hazard information (MSDSs, labels, etc.) to be transmitted to downstream employers.

However, manufacturers of "high energy machines", welding machines or photocopiers are not considered to be chemical manufacturers under the HCS since they produce machines and not chemicals, for use or distribution to downstream employers. Because ozone is not generated by the welding rod or flux, but rather results from the ionization of the air surrounding the arc or high voltage gap, ozone is not a by-product of the welding rod or photocopier chemical but of the welding or photocopying process. Ozone generated in this fashion would not fall within the scope of 29 CFR 1910.1200(b)(1).

The newly revised Hazard Communication Compliance Directive, CPL 2-2.38C (effective date: October 22, 1990), contains the following language relative to 29 CFR 1910.1200(b)(2) which provides further guidance on hazard communication and workplace exposures to hazardous substances such as you described in your memo (see Appendix A, page A-2):

The phrase "known to be present" is essential to understanding the scope of the standard. If a hazardous chemical is known to be present by the chemical manufacturer or the employer, it is covered by the standard. This includes chemicals to which employees may be exposed during normal operations or in a foreseeable emergency. This means that even though an employer did not create the hazard, such as silica exposure during concrete demolition, or the hazards of exposure to the chemicals brought onto a multi- employer worksite by other employer(s), the standard applies and the employer whose employees are exposed to chemicals known to be present should include hazard communication information about these exposure situations in his workplace hazard communication program.

In the ozone generating process you described, the presence of ozone in the workplace should be addressed in the employer's hazard communication program. Application of this provision is, of course, dependent on whether exposure to ozone is the result of normal conditions of use, such as photocopying constantly during the day (i.e., a worker's job assignment) or exposures that welders could normally expect to occur on a routine basis. In situations where this provision would apply, employers would not have to "produce" an MSDS or a label, but should provide information in their hazard communication program to inform their employees "about the hazardous chemical to which they are exposed." Employers may, of course, use their existing hazard communication programs to communicate information on these types of hazards to their employees as per paragraph (e)(3) of the HCS.

This new language in the hazard communication directive describes a previously unused "should" obligation for employers who expose their employees to hazardous substances, in situations where they do not create the hazards or bring them onto the work site. This interpretation of the scope and application section of the standard will allow OSHA staff to encourage employers to include chemical hazard information in their existing hazard communication programs. This may be accomplished as part of an employer's abatement of written program violations or through the Agency's encouraging of the employer to address chemical hazards "known to be present" in their employee training sessions.

SOURCE LETTER

SEP 19, 1990

MEMORANDUM

SUBJECT: Hazard Communication Standard

Questions have arisen concerning whether ozone which is generated during the normal operation of machinery is covered by the Hazard Communication Standard. The ozone would be generated as a by-product of the operation such as welding, high energy machinery, photocopier machines, etc.

It has been this office's understanding that ozone generated in the aforementioned manner would not be covered under the Hazard Communication standard since the ozone is not generated by a chemical process but rather as a by-product of electrical current. If the ozone referenced would be considered to be covered by the standard then the portions of the standard that would be applicable should be defined. Obviously, labels would not be required but would the employer be required to generate a material safety data sheet? Your comments on this issue are requested.

RECORD ID 1807

STANDARD NUMBER 1910.1200(d)(5)(ii); (d)(5)(iv); (g)(2)(i)(B)(2); 1910.1047(a)(2);
1910.1047(a)(3); (j)(1)(i); (j)(3)(i); (k)(1)(i); (k)(1)(ii); (k)(1)(iii)
INFORMATION DATE 860407

ABSTRACT

An Interpretive Letter regarding the label requirements of the EtO Standard, 19110.1047, and the MSDS requirements of the HCS on product(s) containing trace quantities of ethylene oxide. When formulating new products from surfactants that contain EtO, which has been certified as exempt from the EtO Standard by a supplier, the supplier's determination may be used by the downstream manufacturer if the conditions for use of the product are similar to the conditions assumed by the supplier for its products. An additional determination must be made if the conditions of processing, use, or handling of the product differ from those envisioned by the supplier, per (b)(2), and the definition "exposure" in section (c).

INTERPRETATION

29 CFR 1910.1200(d)(5)(ii); (d)(5)(iv); (g)(2)(i)(B)(2); 1910.1047(a)(2);
1910.1047(a)(3); (j)(1)(i); (j)(3)(i); (k)(1)(i); (k)(1)(ii); (k)(1)(iii)

APR 7, 1986

This is in response to your letter of September 9, 1985, concerning the Occupational Safety and Health Administration's (OSHA) standards for ethylene oxide (EtO) (29 CFR 1910.1047) and for hazard communications (29 CFR 1910.1200). I apologize for the delay in responding to your inquiry.

With regard to your first question, the ethylene oxide standard in 29 CFR 1910.1047(a)(2) states:

(2) This section does not apply to the processing, use, or handling of products containing EtO where objective data are reasonably relied upon that demonstrate that the product is not capable of releasing EtO in airborne concentrations at or above the action level under the expected conditions of processing, use, or handling that will cause the greatest possible release.

The criterion that must be satisfied in order to assert that a particular product or operation is exempt from the EtO Standard under paragraph (a)(2) can be found in 29 CFR 1910.1047(k)(1) which states:

- (i) Where the processing, use, or handling of products made from or containing EtO are exempted from other requirements of this section under paragraph (a)(2) of this section, or where objective data have been relied on in lieu of initial monitoring under paragraph (d)(2)(ii) of this section, the employer shall establish and maintain an accurate record of objective data reasonably relied upon in support of the exemption.
- (ii) This record shall include at least the following information:
 - (A) The product qualifying for exemption;
 - (B) The source of the objective data;
 - (C) The testing protocol, results of testing, and/or analysis of the material for the release of EtO;
 - (D) A description of the operation exempted and how the data
 - (E) Other data relevant to the operations, materials, processing, or employee exposures covered by the exemption.
- (iii) The employer shall maintain this record for the duration of the employer's reliance upon such objective data.

You state in your letter that your supplier of the surfactants that contain EtO has made the determination that their product is exempt from the standard pursuant to paragraph (a)(2). Your supplier, therefore, is required under 29 CFR 1910.1047(a)(3) to maintain the records of objective data required in paragraph (k)(1) to support their claim that their product is exempt.

Since your company formulates new products from the surfactants, the expected conditions of processing, use, or handling of your products may be different from those envisioned by your supplier,

and thus may result in different levels of employee exposure to EtO. Therefore, in order to establish that your products are exempt under the provisions of paragraph (a)(2), a determination must be completed in accordance with paragraph (k)(1). If the expected condition of processing, use, or handling for your products are similar to the conditions assumed by the supplier for their products, then the supplier's data could be used as the basis for your determination. Also, you are required under paragraph (a)(3) to maintain the records of the data used to support your exemption claims for your products. You are not required to supply this data to your customers.

With regard to your second question concerning labels, if you determine that your products are exempt from the EtO standard, then the label specified in 29 CFR 1919.1947(j)(1)(ii) is not required, since paragraph (j)(1)(ii) states:

- (ii) The employer shall ensure that precautionary labels are affixed to all containers of EtO whose contents are capable of causing employee exposure at or above the action level.

Concerning the development of material safety data sheets (MSDS) for your products, the hazard communication standard, 29 CFR 1910.1200. If your products are mixtures which have not been tested as a whole for health hazards, the hazard determination is conducted in accordance with paragraph 29 CFR 1919.1200(d)(5)(ii), which states:

- (ii) If a mixture has not been tested as whole to determine whether the mixture is a health hazard, the mixture shall be assumed to present the same health hazard as do the components which comprise one percent (by weight or volume) or greater of the mixture, except that the mixture shall be assumed to present a carcinogenic hazard if it contains a component in concentrations of 0.1 percent or greater which is considered to be a carcinogen under paragraph (d)(4) of this section;

With the products mentioned in your letter, EtO may not have to appear on the MSDS, since EtO is present in the products in quantities less than 0.1 percent (EtO is a carcinogen). However, paragraph 29 CFR 1910.1200(d)(5)(iv) states:

- (iv) If the employer has evidence to indicate that a component present in the mixture in concentrations of less than one percent (or in the case of carcinogens, less than 0.1 percent) could be released in concentrations which would exceed an established OSHA permissible exposure limit or ACGIH Threshold Limit Value; or could present a health hazard to employees in those concentrations, the mixture shall be assumed to present the same hazard.

Therefore, if any study indicates that a health hazard to employees exist at low levels of exposure to EtO (viz., below the action level), then EtO would have to be included on the MSDS.

SOURCE LETTER

SEP 9, 1985

We recently received data from our supplier of some surfactants, containing ethylene oxide (at less than 0.001% levels) that supports an exemption under paragraph (a) (2) of 1910.1047. Thus we will maintain it in support of an exemption for our formulating plants. But we wonder if our customers are obliged to keep this data as well.

We formulate these surfactants into products in 5 to 15% weight concentrations. Certainly our supplier's data would support an exemption for our customers as well. Is it necessary for us to send this data to our customers in support of an exemption, or do they even need an exemption. It is my understanding that our label need not carry a "contains ethylene oxide" label, nor will the Material Safety Data Sheet need to indicate ethylene oxide as a hazardous ingredient, so they could conceivably never know they were handling a product which falls under this standard.

Was the intent of this rule to regulate users of products with low levels of surfactants? Please advise.

RECORD ID 1942

STANDARD NUMBER 1910.1200(d)(5)(iv); 1910.1200(b)(2); 1910.1000
INFORMATION DATE 890315

ABSTRACT An interpretive letter regarding the applicability of the HCS to certain products containing crystalline silica. Test data generated by a company requesting an interpretation indicated no measurable exposure to crystalline silica under the normal conditions of use of the products involved. If appropriate sampling and analysis are conducted of a hazardous chemical of concern and the presence of the chemical is not detected, then for purposes of hazard communication, the chemical is not "known to be present in the workplace in such a manner that employees may be exposed" and thus is not covered by the rule (d)(5)(iv).

INTERPRETATION 29 CFR 1910.1200(d)(5)(iv); 1910.1200(b)(2); 1910.1000

MAR 15, 1989

This is in response to your letter of February 11, to the Assistant Secretary, on behalf of your client, (Company), regarding application of the Hazard Communication Standard (HCS) to certain products containing crystalline silica.

According to your letter and previous information provided by you to the rulemaking record for the HCS, your client produces materials which contain crystalline silica. However, test data generated by (Company) appear to indicate that there is no measurable exposure to crystalline silica under the normal conditions of use for the products involved.

Your letter addresses specific questions regarding the article definition and the requirements for coverage of mixtures. It does not appear to the Occupational Safety and Health Administration (OSHA) that the answer to your underlying question relies on either of those parts of the standard.

The applicable provision of concern is in the scope and application of the rule, paragraph (b)(2), which states: "This section applies to any chemical which is known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency." If appropriate sampling and analysis is conducted for the hazardous chemical of concern (i.e., standard industrial hygiene detected methods are followed), and the presence of the chemical is not detected, then for purposes of hazard communication, the chemical is not "known to be present in the workplace in such a manner that employees may be exposed" and thus is not covered by the rule.

The specific determination regarding coverage for a product is to be made by the chemical manufacturer or importer, which in this case is your client. If the crystalline silica is not available for exposure, the rule simply does not apply. According to the test data you presented, crystalline silica was not detected in the samples you took which simulated the types of exposures that would occur under normal conditions of use.

If those data are a proper characterization of the range of anticipated downstream exposures, it appears that the rule would not apply to the crystalline silica in those products. (Company) may consider that data in the hazard determination process for its products with regard to the requirements to disclose the hazards of crystalline silica.

Specific decisions regarding compliance with the rule are made in the context of enforcement activities in each individual workplace inspected. If OSHA inspects the workplace of an employer using (Company)'s products, and detects exposure to crystalline silica, (Company) would be subject to citation for failure to comply with the HCS.

One consideration in this regard is the length of sampling time (Company) used in its studies. Although we recognize that the operations that would normally involve use of these products result in intermittent exposures, and the sampling strategy used attempted to allow for this and build in a safety factor as well, OSHA generally samples for periods as close to an entire workshift as possible. This difference in

sampling time could result in the detection of crystalline silica, where the shorter sampling times did not. Therefore, it is possible that objective data generated by OSHA for a specific worksite would find that there is exposure and information should have been provided under the HCS. The (company) may wish to consider this possibility in their determination to rely on the data presented.

With regard to the letter you submitted on November 21, 1988, requesting reconsideration of the Agency's September 20, 1988, denial of a petition submitted by the National (X) Association, OSHA does not believe that any new facts or evidence have been presented which would in any way alter the Agency's determination regarding the carcinogenicity of crystalline silica for purposes of hazard communication. The position described in the September 20, 1988, letter still applies, and your petition for modification of that position is hereby denied.

The other issues you raised primarily involved the detectability questions that are discussed in this response. Although they were raised in the context of the petition as questions of feasibility, they were actually simply questions regarding OSHA's interpretation of the applicability of the rule. This letter provides the relevant interpretations

You also requested an administrative stay pending the reconsideration of the issues raised. As this reconsideration is now completed, the request for an administrative stay is also denied. As you know, your suggestions for modifications to the rule itself are part of the public docket for the current rulemaking on the HCS, and they will be considered as a final rule is developed.

RECORD ID 4085

STANDARD NUMBER 1910.1200; 1910.1200(a)(2); (b)(2); (b)(6)(iv); (c)
INFORMATION DATE 901221

ABSTRACT An Interpretive Letter as to the applicability of the Hazard Communication Standard to heat-shrinkable polymeric products ("heat-shrink products)." The HCS does apply to the potential release of hazardous substances from heat-shrink products due to overheating or burning during installation. Such products are not exempt from coverage under the standard. Equipment failure and failure of control equipment can cause a "foreseeable emergency," (b)(2) and result in the release of hazardous chemicals and employee exposure, (c), Definitions. The HCS does not require dissemination of hazard information on exposures resulting from intentional misuse. Hazard information is required on exposures resulting from accidental misuse, which are part of normal operating procedures, and should be anticipated during the hazard evaluation process, and covered in Hazard Communication programs.

INTERPRETATION 29 CFR 1910.1200; 1910.1200(a)(2); (b)(2); (b)(6)(iv); (c)

DEC 21, 1990

Thank you for your letter of November 26, to the Occupational Safety and Health Administration (OSHA) requesting an interpretative ruling regarding the applicability of the Hazard Communication Standard (HCS), 29 CFR 1910.1200, to heat shrinkable polymeric products ("heat shrink products").

You specifically raised the following two questions:

- (1) Does the potential release of hazardous substances from heat shrink products due to overheating or burning during installation constitute a "normal condition of use" or a "foreseeable emergency" under 29 CFR 1910.1200(b)(2) which places these products under the HCS regulations?

If so,

- (2) are heat shrink products exempt from the HCS as "articles" under 29 CFR 1910.1200(b)(6)(iv)?

As you point out in your letter and as required by section (b)(2) of the HCS, the standard applies to "any chemical which is known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency." (Emphasis added). "Exposure" is defined in the HCS as including "potential (e.g., accidental or possible) exposure." If there is the potential for overheating during workplace use of the product, i.e., if equipment failure can be normally anticipated during workplace processing operations and result in overheating the heat shrink product causing employee exposure to hazardous chemicals, then the product would not be exempt from coverage.

As explained in the standard itself and in OSHA's Compliance Instruction for the HCS, CPL 2-2.38C, chemical manufacturers are responsible for performing a hazard determination on the chemicals they produce to determine if, during their anticipated or known use, exposure to hazardous chemicals might occur to downstream employees. The OSHA Instruction, on page A-9, includes equipment failure and failure of control equipment as situations that could cause a "foreseeable emergency" and result in the release of hazardous chemicals with resultant employee exposure. The chemical manufacturer must consider potential exposures, including accidental or possible exposures that may occur when downstream employees use the product. Only by considering all the exposure scenarios that may occur during normal use can the manufacturer truly assess the hazards encountered during anticipated use of his product. Equipment failure that results in the accidental overheating of the product is certainly an exposure scenario that should be anticipated by a manufacturer during his hazard determination process.

OSHA does not perform hazard determinations on chemical products for manufacturers and is not doing so by this response for the heat-shrink products you produce. If, however, as the chemical manufacturer, you have information that overheating via equipment failure or maladjustment, etc., can be expected to occur a percentage of time during normal workplace handling of your product, then employees have a

right to know the hazard information associated with the resultant potential exposure and your product would be covered under the requirements of the Hazard Communication Standard.

Your letter refers to "misuse" of a product and questions whether the HCS applies if a product is "misused." The standard does not require hazard information transmittal for exposures that result from intentional misuse. However, exposures resulting from "accidental misuse" such as you described in your letter are covered since hazardous chemical exposures can be expected to occur a percentage of time with normal use when equipment fails, overheats, or otherwise is not operating as the manufacturer intended. Accidental exposures are part of normal operating procedures and should be anticipated by the chemical manufacturer during the hazard evaluation process.

This interpretation is not different from the performance oriented approach taken by OSHA in its clarification that, under "normal conditions of use and as the result of foreseeable emergencies" a percentage of glass mercury switches can be expected to break during normal installation operations (Federal Register Vol. 52, No. 163 p. 31865). "In these cases, installation is the 'normal condition of use' for the employees installing the items, and thus hazard information is required for these intermediate uses. Once installed, these items would be articles and thus exempted."

In your letter, you state that "if the HCS does apply to heat shrink products, then end users of these products should receive uniform notices and warnings of potential hazards from misuse of these products." OSHA does not and can not issue warnings to users of a product to inform them that "the HCS applies to them." However, letters of interpretation such as this one are uniformly included in OSHA's Computerized Information System (OCIS) and are disseminated on-line to all OSHA offices throughout the country. In this way, OSHA compliance personnel are notified of clarifications and interpretations of the performance-based requirements of the HCS and are able to utilize such information in their compliance assessments.

RECORD ID 1938

STANDARD NUMBER 1910.1200(f)(1); 1910.1200(b)(5)(i); 1910.1200(b)(6)(vii)
INFORMATION DATE 880531

ABSTRACT A clarification of the HCS requirements for MSDSs on consumer products and pesticides. On October 23, 1987, OMB disapproved the coverage of any consumer product that falls within the "consumer products" exemption included in Section 311(e)(3) of SARA. In the 1989 amended standard, (b)(6)(vii), when consumer products are used in the workplace in the same manner as the consumer, then they remain exempt. Pesticides labeled in accordance with the Federal Insecticide, Fungicide and Rodenticide Act administered by the EPA are exempt only from the container labeling requirements under 29 CFR 1910.1200(f).

INTERPRETATION 29 CFR 1910.1200(f)(1); 1910.1200(b)(5)(i); 1910.1200(b)(6)(vii)

MAY 31, 1988

This is in response to your letter of May 4, requesting clarification of requirements for material safety data sheets under the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Chemical manufacturers, importers and distributors must provide a material safety data sheet for each hazardous chemical. Material safety data sheet for each hazardous chemical. Material safety data sheets can be provided for the single substance, for the hazardous chemical if the mixture has been tested as a whole, or for the components if no test data exists on the mixture as a whole and the employer is assuming the mixture has the same hazard as its hazardous components. When the chemical manufacturer chooses to supply individual material safety data sheets for the components of the mixture, the material safety data sheets must be physically attached to one another and identified in such a manner that they can be cross-referenced with the label.

On October 23, 1987, the Office of Management and Budget disapproved the coverage of any consumer product that falls within the "consumer products" exemption included in Section 311(e)(3) of the Superfund Amendment and Reauthorization Act (SARA) of 1986. All products, therefore, that are used by consumers, or are present in the same form and concentration as products packaged as a consumer product are presently exempt from coverage under the HCS, until OSHA conducts further rulemaking.

Pesticides labeled in accordance with the Federal Insecticide, Fungicide and Rodenticide Act administered by the Environmental Protection Agency (EPA) are exempt only from the container labeling requirements under 29 CFR 1910.1200(f). All other provisions of the rule including the need for a material safety data sheet are still in effect. Applicators of restricted use pesticides who are certified and receive training regarding proper application of pesticides are covered by EPA.

RECORD ID

1936

STANDARD NUMBER
INFORMATION DATE

1910.1200(e)(2); 1910.1200(b)(6)(vii); 1910.1200(b)(6)(viii)
890502

ABSTRACT

An Interpretive Letter regarding consumer product exemption under the HCS. When a consumer product is not used in a manner similar to normal consumer use, resulting in a duration and frequency of employee exposure greater than what consumers experience, the standard applies (b)(6)(vii).

INTERPRETATION

29 CFR 1910.1200(e)(2); 1910.1200(b)(6)(vii); 1910.1200(b)(6)(viii)

MAY 2, 1989

This is in response to your letter of January 11, concerning the consumer product exemption under the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS).

The Office of Management and Budget (OMB) approved all but three of the requirements of the HCS to meet the provisions of the Paperwork reduction Act. These three requirements are: 1) the requirement that material safety data sheets be provided on multi-employer worksites; 2) the coverage of any consumer product that falls within the "consumer product" exemption included in Section 311(3) of the Superfund Amendments and Reauthorization Act of 1986; and 3) the coverage of any drugs regulated by the Food and Drug Administration in the nonmanufacturing sector.

On August 19, 1988, the United States Court of Appeals for the Third Circuit ruled that OMB had exceeded its authority, under the Paperwork Reduction Act, in disapproving the three provisions of the expanded HCS. The court ordered OSHA to "publish in the Federal Register a notice that those parts of the August 27, 1987, Hazard Communication Standard which were disapproved by OMB are now effective." On September 2, 1988, the Department of Justice filed a petition for rehearing with a suggestion for rehearing by the entire third Circuit Court of appeals. The Court of Appeals denied the petition for rehearing (November 29, 1988), as well as requests for stay of the decision. In addition, a further motion by industry representatives for a stay of the decision was denied on January 24, by the U.S. Supreme Court Justice Brennan, and on February 17, by the full Court on reconsideration. The Solicitor general has filed a petition for a writ of certiorari on behalf of the government in the United Steelworkers case. Industry representatives also petitioned the Supreme Court for writs of certiorari in both the United Steelworkers case and in Associated Builders and Contractors, in which industry challenged the validity of the standard's application to nonmanufacturing employers. Those requests are pending. If certiorari is granted, the Supreme Court may ultimately decide the enforceability of these provisions.

However, the Third Circuit's decision became effective January 30 of this year and OSHA complied with the Third Circuit order by publishing a notice in the Federal Register on February 15 announcing the effectiveness. All provisions of the HCS are now in effect in all industries.

Consequently, statements in the OSHA Instruction CPL 2-2.38B regarding the exemption of all consumer products are no longer applicable.

Under the current rule, whenever a consumer product is not used in a manner similar to that of normal consumer use, resulting in a duration and frequency of exposure greater than consumers experience, the product is covered by the HCS.

RECORD ID 2142

STANDARD NUMBER 1910.1200(c); (f)(1); (f)(6); (f)(7); (g)(2)(i)(B); (h)
INFORMATION DATE 840925

ABSTRACT An Interpretive letter clarifying the Hazard Communication Standard with regard to alternative warning methods, delays between filling and labeling a chemical container, and label identification of all products in a mixture.

INTERPRETATION 29 CFR 1910.1200(c); (f)(1); (f)(6); (f)(7); (g)(2)(i)(B); (h)

SEP 25, 1934

This is in response to your letter of July 23 to Mr. S., Regional Administrator, requesting clarifications of the Hazard Communication standard (29 CFR 1910.1200). Your questions are answered as follows:

Question #1:

Must bulk chemical storage tanks and the plumbing be marked and labeled to show all hazards?

Answer:

The standard permits several alternative warning methods under 1910.1200(f)(6) as follows:

"(5) The employer may use signs, placards, process sheets, batch tickets, operating procedures, or other such written materials in lieu of affixing labels to individual stationary process containers, as long as the alternative method identifies the containers to which it is applicable and conveys the information required by paragraphs (f)(5) of this section to be on a label. The written materials shall be readily accessible to the employees in their work area throughout each workshift."

Appropriate hazard warnings are required for all hazardous chemicals present.

Question #2:

When containers are filled for storage must they be labeled on the distribution property?

Answer:

Containers should be labeled as soon as practicable. A delay between filling and labeling is permissible. Bulk storage tanks from which filling is taking place must be labeled.

Question #3:

Must the label identify all products in mixtures?

Answer:

Employers need not list all of a product's constituents individually on the label. This interpretation is evident when one reviews the definition of the terms "identity" and "common name" under section 29 CFR 1910.1200(c) of the standard. Essentially, a common name may appear on the label as long as the material safety data sheet (MSDS) is similarly identified.

Question #4:

Must Safety Data Sheets identify all products and percentages in mixtures?

Answer:

The information required under 29 CFR 1910.1200(g) must be given only for the hazardous chemicals present within a product mixture, unless they are present in concentrations of less than 1.0 percent, and less than 0.1 percent for carcinogens. The standard does not require the listing of percentages of chemicals in mixtures. In the case of trade secrets or when specific information is unavailable, these facts must be explained on the MSDS; blanks are not permitted.

Question #5:

Would signs posted in our drum filling area and storage area take the place of labels on our property?

Answer:

No, containers must be identified as soon as possible. Signs may be used in place of labels on stationary process equipment pursuant to paragraph (f)(6) of the standard. (See answer to question number 1.)

RECORD ID

3056

STANDARD NUMBER
INFORMATION DATE

1910.1200(b)(2); 1910.1200(c)
900105

ABSTRACT

An interpretive letter regarding the definition of "article" under the HCS in reference to medical supplies and devices. Medical supplies and devices, such as metal bed pans and crutches, are "articles" under 1910.1200(c). OSHA is responsible for ensuring employee safety and health and the purpose of the HCS is to ensure that employees have access to information about the hazardous chemicals with which they work. Manufacturers of articles do not have to anticipate exposures that might occur during the ultimate destruction (incineration) of the products they produce as long as exposures that could result from normal conditions of use are addressed on the MSDSs and/or labels.

INTERPRETATION

29 CFR 1910.1200(b)(2); 1910.1200(c)

JAN 5, 1990

This is in response to your letter of August 30 1990. You wrote regarding the definition of "articles" under the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS) 29 CFR 1910.1200. I apologize for the long delay of this response.

You expressed concern that manufacturers of medical supplies and devices are routinely developing material safety data sheets (MSDS) for these manufactured items, and that distributors of these items are burdened with transferring the accompanying MSDS to downstream users. You specifically requested an interpretation from OSHA that these medical devices be considered "articles" under the HCS. You also requested a statement from the Agency that incineration of medical devices does not constitute a "normal condition of use."

OSHA agrees with your understanding that medical devices such as metal bed pans and crutches are "articles" under the definition given in section (c) of the Standard. The article exemption is based upon a lack of employee exposure potential to hazardous chemicals during normal conditions of use of that article. Incineration of medical devices may be a routine disposal operation but does not constitute "a normal condition of use." "Use" is defined in the HCS as meaning to "package, handle, react or transfer." Such supplies and devices do not release material while workers are using them in the normal course of their employment.

The manufacturers of such items do not have to anticipate their ultimate destruction. For purposes of the HCS, the medical devices you inquired about would be considered "articles" under the HCS if, during their normal condition of use, no employee exposure potential to hazardous materials exists. Further, as you pointed out in your letter, the incineration of medical devices is performed in order to destroy biological hazards and standards governing the disposal and incineration of biological and other hazardous wastes are developed and enforced under the statutory purview of the Environmental Protection Agency. While OSHA is the Agency responsible for ensuring employee safety and health and the purpose of the HCS is to ensure employees have access to the information about hazardous chemicals that they work with, as explained above, manufacturers of articles do not have to anticipate exposures that might occur during the ultimate destruction (incineration) of the products they produce as long as exposures that could result from normal conditions of use are addressed on the MSDS and/or labels.

RECORD ID

1905

STANDARD NUMBER
INFORMATION DATE

1910.1200(d)(3)(ii); 1910.1000; 1910.1200(d)(2); 1910.1200(d)(3)(i)
880417

ABSTRACT

An Interpretive Letter regarding the applicability of the HCS to alpha-alumina. Alpha-alumina (aluminum oxide) must be evaluated using the procedure for hazard determination outlined in 29 CFR 1910.1200(d) to determine the necessity of continuing to maintain a material safety data sheet. The compound is listed in the ACGIH-TLV Booklet (1990-91 edition). Therefore, based on section (d), the material is hazardous and must be regulated under the HCS.

INTERPRETATION

29 CFR 1910.1200(d)(3)(ii); 1910.1000; 1910.1200(d)(2);
1910.1200(d)(3)(i)

APR 17, 1988

This is in reply to your letter of February 22, regarding the necessity of continuing to maintain a Material Safety Data Sheet (MSDS) for alpha-Alumina (Al_2O_3).

Alpha-Alumina is part of the floor of hazardous chemicals. Occupational Safety and Health Administration (OSHA) regulates "nuisance dust" by 29 CFR 1910.1000 and Al_2O_3 is listed in Appendix D to the Threshold Limit Value (TLV) list of the latest edition of the American Conference of Governmental Industrial Hygienists (ACGIH). All substances, such as alpha-Alumina listed in Appendix D of the TLV list must be evaluated using the procedure for hazard determination outlined in 29 CFR 1910.1200(d). The company's written hazard determination is to describe the process followed, such as the sources of information consulted (OSHA, ACGIH, Registry of Toxic Effects of Chemical Substances) and the criteria used to evaluate studies. Health hazards based on at least one positive study conducted in accordance with established scientific principles and demonstrating statistically significant evidence must be listed on an MSDS.

RECORD ID

1927

STANDARD NUMBER
INFORMATION DATE1910.1200(f)(1)(ii); 1910.1200(Appendix A)(2); 1910.1200(d)(1)
881201

ABSTRACT

An Interpretive Letter regarding hazard determination criteria for corrosive liquids. In making a hazard determination, chemical testing is not required, per section (d). An evaluation is to be based on currently available information, 1910.1200(d). Chemical manufacturers, importers, and employees evaluating a chemical shall identify and consider the available scientific evidence as to its hazard. In addition, the floor reference sources listed in paragraph (d) of the standard must be considered. Although pH is a characteristic of a corrosive liquid, as defined in Appendix A(2), it does not define corrosivity, as a corrosive material can be liquid or solid. The findings of the hazard determination dictate the labeling requirements.

INTERPRETATION29 CFR 1910.1200(f)(1)(ii); 1910.1200(Appendix A)(2);
1910.1200(d)(1)

DEC 1, 1988

This is in response to your letter of September 7, regarding the hazard determination requirements under the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard 29 CFR 1910.1200.

Question 1:

If a company chooses not to have their products tested by this method (as stated by 29 CFR 1910.1200), what criteria would determine if a product is classified as corrosive on hazard warning labels and MSDS sheets?

Answer:

As a chemical manufacturer, importer or employer evaluating chemicals, you are not required to follow any specific test methods stated in 29 CFR 1910.1200 for the hazard determination. You must, however, be able to demonstrate that the hazards of the chemicals produced or imported have been adequately ascertained in accordance with the criteria set forth in Appendix B, Hazard Determination found in 29 CFR 1910.1200. In making the hazard determination you are not required to perform chemical testing. The evaluation is to be based on currently available information. You are required to consider all available scientific evidence concerning the hazard of a chemical in addition to consulting the floor reference sources, listed in paragraph (d)(3) of the standard. These are 29 CFR Part 1910, Subpart Z, Toxic and Hazardous Substances, OSHA; and Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment, ACGIH. Additional information sources to evaluate the hazards associated with the chemicals are listed in Appendix C to 29 CFR 1910.1200.

Question 2:

Would pH measurements define corrosivity of that product or would there be other test methods?

Answer:

The pH is a measure of the acidity or alkalinity of a solution. Although pH is a characteristic of a corrosive liquid, it would not define corrosivity, as a corrosive material can be liquid or solid. Titanium tetrachloride is an example of a solid corrosive material. To make a thorough and defensible hazard determination, not only pH but all relevant data available must be examined.

Question 3:

Should other labels such as "CAUTION IRRITANT" be used in place of "CORROSIVE?"

Answer:

An irritant is a chemical, which is not corrosive, but which causes a reversible inflammatory effect on living tissue by chemical action at the site of contact. If the evidence available on a chemical indicates it is an irritant hazard rather than corrosive, the appropriate hazard warning must be used. The hazard warning must convey the hazard of the chemical and the target organ effects, when such information is available (i.e., eye irritant or skin irritant).

RECORD ID

1955

STANDARD NUMBER
INFORMATION DATE

1910.1200(d)(5)(ii); (f)(1)(i); (g)(2)(i)(C)(1); (Appendix B)
881024

ABSTRACT

An Interpretive Letter discussing hazard determinations and MSDS requirements under the HCS. The MSDS statement "that respiratory protection is not needed with normal use," strongly implies that there are conditions of use, emergency or otherwise, for which respiratory protection or some other control measure is necessary. Similarly, a statement that "the product is not hazardous in normal use" implies that there are no hazards associated with the product. It is the responsibility of the preparer of the MSDS to ensure that the information recorded on the sheet accurately reflects the scientific evidence used in making the hazard determination.

INTERPRETATION

29 CFR 1910.1200(d)(5)(ii); (f)(1)(i); (g)(2)(i)(C)(1); (Appendix B)

OCT 24, 1988

This is in response to your letter of October 3, regarding hazard determination and material safety data sheet requirements under the Hazard Communication Standard (HCS) 29 CFR 1910.1200.

The HCS under 1910.1200(d)(5)(ii) allows a chemical manufacturer to assume an untested mixture to present the same health hazards as do the components which comprise one percent or greater of the mixture; or to be a carcinogenic hazard, if the mixture contains a component in concentrations of 0.1 percent or greater where the component is considered to be a carcinogen. Your client's material safety data sheet would be prepared correctly if the health hazards of the component parts greater than one percent, or 0.1 percent for any carcinogenic components, are reported.

Generally, applicable control measures including engineering controls, work practices or personal protective equipment and any generally applicable precautions for safe handling and use which are known to the chemical manufacturer should also be reported on the material safety data sheet. The statement "that respiratory protection is not needed with normal use," strongly implies that there are conditions of use, emergency or otherwise, for which respiratory protection or some other control measure would be necessary; i.e., use in confined spaces, in high temperatures or with inadequate ventilation. The conditions and appropriate protective measures must be included on the material safety data sheet. Similarly, the statement that "the product is not hazardous in normal use" implies that there are no hazards associated with the product. The standard is explicit in describing the criteria to be used to determine whether or not a chemical is to be considered hazardous for purposes of the HCS. The criteria can be found in Appendix B. It is the responsibility of the chemical manufacturer, importer or employer preparing the material safety data sheet to ensure that the information recorded accurately reflects the scientific evidence used in making the hazard determination.

Where the employer chooses not to undergo a hazard determination, and is assuming a mixture has the same properties as its hazardous component parts, the data sheets for the components will satisfy the material safety data sheet requirements for the mixture.

RECORD ID

3855

STANDARD NUMBER
INFORMATION DATE

1910.1200(g)(2)(i)(C)(2); 1910.1200(d)(5)(iv)
901012

ABSTRACT

An Interpretive Letter discussing the requirements to provide MSDS information on carcinogens that are a residue in a mixture. When one of the chemicals in a mixture forms a carcinogenic residue of less than 0.1-percent, information on the hazards of the carcinogen generally are not required on an MSDS for the mixture. The exceptions are if, under paragraph (d)(5)(iv) of the HCS, a hazard determination is performed and evidence exists that the chemical can still present a health hazard to workers in that concentration, or that it could be released and exceed established permissible exposure limits or threshold limit values. In these situations, information about the carcinogens are to be included on the MSDSs for the mixtures.

INTERPRETATION

29 CFR 1910.1200(g)(2)(i)(C)(2); 1910.1200(d)(5)(iv))

OCT 12, 1990

Thank you for your letter of August 16, regarding the requirements of the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS), 29 CFR 1910.1200. Specifically, you requested guidance regarding the standard's material safety data sheet (MSDS) requirements for residues in a mixture, and posed the following question:

"Chemical A and Chemical B are reacted to form Mixture C. Mixture C contains a residue of Chemical A. Chemical A, which is a carcinogen, is present as a residue in the mixture at less than 0.1%. Is an MSDS required for Chemical A?"

In order to ensure we are using the correct terms, we are restating your question slightly as follows: Substance A and Substance B are reacted to form Substance C. However, a residual of Substance A remains after the reaction occurs. Therefore, the new product is Substance C, plus less than 0.1% of Substance A, or Mixture D. Would information on the hazards of Substance A be required on the MSDS for Mixture D?

Given that Substance A constitutes less than 0.1% of Mixture D, the answer would generally be no. The exceptions would be if, under paragraph (d)(5)(iv) of the HCS, you perform a hazard determination and find there is evidence that the chemical can still present a health hazard to workers in that concentration, or that it could be released and exceed established permissible exposure limits or threshold limit values. In these situations, information regarding Substance A would have to be included on the MSDS for Mixture D.

SOURCE LETTER

AUG16, 1990

RE: Reporting Requirements for Residues in a Mixture

We are requesting guidance regarding Material Safety Data Sheets (MSDSs) for residues in a mixture. We would appreciate the Agency's response to the following question.

Chemical A and Chemical B are reacted to form Mixture C. Mixture C contains a residue of Chemical A. Chemical A, which is a carcinogen, is present as a residue in the mixture at less than .1%. Is an MSDS required for Chemical A?

I have previously conferred with Ms. S on this issue and she indicated that an MSDS would probably not be required for Chemical A. We are requesting confirmation of this interpretation.

RECORD ID**3749**

STANDARD NUMBER**1910.1200(e)(1); (e)(2); (e)(4); (g)(9); 1910.331(a); (a)(1); 1910.332;
1926.59(e)(1)****INFORMATION DATE****901018**

ABSTRACT

An interpretation letter discussing the applicability of the Hazard Communication Program on site and standard covering electrical installation, maintenance or repair. Responses to questions concerning the new final rule amending Subpart S, Electrical, Section 1910.331 and 1910.332, and the Hazard Communication Standard requirements.

The new 1910 Subpart S amendments cover painting, decorating and paper hanging, and electrical work related to supply if the project involves only a change of color or wallcovering, or maintenance on existing wiring or circuitry. If the project involves structural remodeling or repair, the construction standards would apply.

An exception to the requirement that the written hazard communication program (HCP) be kept on-site may be allowed on multi-employer worksites where an employee(s) travels between workplaces yet who at times reports to a primary workplace where the written HCP is maintained.

INTERPRETATION**29 CFR 1910.1200(e)(1); (e)(2); (e)(4); (g)(9); 1910.331(a); (a)(1);
1910.332; 1926.59(e)(1)****OCT 18, 1990**

This is in further response to your letter of August 13, to the Occupational Safety and Health Administration (OSHA), in which you requested a response to two questions. One of the questions concerned OSHA's new final rule concerning the amendments to Subpart S, Electrical, Sections 1910.331 and 1910.332, and the other question concerned the requirement for the employer to maintain the written hazard communication program on-site, as per 1910.1200 and 1926.59(e)(1).

Question 1:

Do the new 1910 Subpart S amendments cover painting, decorating and paper hanging and electrical work related to supply (as opposed to electrical work on equipment/machines beyond the supply interface)?

Response:

In responding to your question, the key concept which must be considered is the distinction between maintenance and repair. These activities are often very close and may require a case-by-case determination based on actual circumstances at the worksite. In general the following observations are pertinent. If the project involves only a change of color or wallcovering, or maintenance on existing wiring or circuitry, the work would be covered under the General Industry Standards, 29 CFR Part 1910, and the new amendments would apply. On the other hand, if the project involves structural remodeling or repair, and includes painting, hanging wallpaper, or installation of new electrical supply wiring and components, the construction standards, 29 CFR Part 1926, would apply. Electrical work on equipment/machines other than supply components would be covered under the new amendments.

Question 2:

I note that OSHA has issued citations to employers for failure to produce their written Hazard Communication program at the time of the inspection. These citations have been issued in General Industry and in Construction.

While I would agree that it is good safety practice to have such a document "present" at each work site, please inform me if employers must have their written program at the work site at all times to be in compliance with either 1910.1200 or 1926.59.

Response:

This question regarding the requirement for on-site availability of the written hazard communication program ("HCP") is an issue that has arisen often in OSHA enforcement of the provisions at section (e)(1) and (e)(2) of the standard, and has caused the Agency to reconsider its compliance policy on the issue.

There is no question that the written HCP must be maintained on-site at fixed worksites or establishments. However, an exception to the requirement that the written hazard communication (HCP) be kept on-site may be allowed on multi-employer worksites and in situations where an employee(s) travels between workplaces yet who at times reports to a primary workplace facility where the written HCP is maintained. The standard sets forth, at (e)(1), a positive requirement for the written program to be maintained "at the workplace." OSHA previously interpreted this requirement to mean that the written program must be kept on-site at all times or even in the truck of employees who travel between worksites.

The Agency proposed, however, in the 1988 Notice of Proposed Rulemaking, to add a new subparagraph to the paragraph (e) requirements which allows the written program to be maintained at a "central location at the primary workplace facility" for employees who travel between workplaces during a workshift (proposed new paragraph (e)(5)). The final rule presently allows MSDSs to be maintained at the central workplace for employees who travel between workplaces during a workshift (paragraph (g)(9)). The (g)(9) provisions also require that employees have immediate access to MSDS information in the event of an emergency.

Unlike MSDS information which may be necessary to assure the safety of employees in the event of an emergency, the information contained in an employer's written HCP is mainly procedural and the presence of a written document on the worksite may not have a direct or immediate relationship to employee safety or health. This is especially true in situations where employers are implementing an effective overall HCP and whose employees have already received the required hazard communication training. The need for the program to be on-site, therefore, in situations where employees travel or are dispatched from a primary workplace location (e. g. , administrative offices) where the written program is maintained to a multi-employer worksite may bear no immediate relationship to safety and health and may, in the professional judgement of the Compliance Safety and Health Officer (CSHO) and Area Director, be considered a "de minimis" violation of section (e)(1) (see OSHA's Field Operation Manual, (FOM), Chapter IV, B.6., pages IV 30-31).

This policy also applies in situations where the employee does not return to the primary workplace during the workshift as long as the employee(s) is aware of the content of the program and the methods the program contains that affect the sharing of the hazard communication information required at (e)(2)(i-iii). Stated in another way, if hazard communication information (accessibility of MSDSs, the employer's labeling system, etc.) is not being shared with other on-site employees and the employees are unaware of the methods outlined in the program which have been developed to accomplish this intent, then the need for the program to be on-site would bear a direct relationship to safety and health and the absence of the program on-site would not be a "de minimis" violation.

This change in citation policy will be communicated to Agency Regional staff by copy of this correspondence, and incorporation into new program guidance presently under development in the form of an updated compliance directive on inspection procedures for the Hazard Communication Standard.

At fixed worksite locations, the requirement for the written hazard communication program to be maintained on-site and readily accessible to employees remains.

SOURCE LETTERS

SEP 3, 1990

This is an interim response to your letter of August 13, concerning the Occupational Safety and Health Administration's (OSHA) new final rule amending Subpart S, Electrical, Section 1910.331 and .332, and OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

AUG 13, 1990

I have the following two questions. One concerns the new final rule concerning the amendments to Subpart S, Electrical, Section 1910.331 and 1910.332. The other concerns the Hazard Communication Standard, 29 CFR 1910.1200.

1. The preamble to the Subpart S Electrical amendment suggests that painters and paper hangers are covered by the new rule (see 55 FR 32012; Table 7 - Occupations Requiring Training) as well as electricians.

Also 29 CFR 1910.332, Training, Table S-4 refers to the above occupations.

The authority noted for Subpart S of part 1910 is Sections 4, 6, 8 of the OSH Act of 1970.

According to the Standard Industrial Classification Manual (1972), Painting, Paper Hanging and Decorating (SIC 172) and Electrical Work (SIC 173) are classified as Special Trade Contractors.

Under 29 CFR 1926, Subpart C - General Safety & Health Provision, (authority, Section's. 4, 6, 8 of the OSH Act of 1970) section 1926.20 notes contractor requirements and sets out the scope of coverage for "construction, alteration, and/or repair, including painting and decorating...."

In my experience, it has been OSHA's policy to include painting and decorating as a construction activity. In addition, when electricians in General Industry install new service, or repair existing service, OSHA has considered that activity to be construction.

Does the new 1910 Subpart S amendments cover painting, decorating and paper hanging, and electrical work related to supply (as opposed to electrical work on equipment/machines beyond the supply interface)?

2. I note that OSHA has issued citations to employers for failure to produce their written Hazard Communication program at the time of the inspection. These citations have been issued in General Industry and in Construction.

I note in 1910.1200 and 1926.59, paragraph (e)(4), that "the employer shall make the written hazard communication program available, upon request, to employees, their designated representatives, the Assistant Secretary and the Director, in accordance with the requirements of 29 CFR 1910.20(e)."

29 CFR 1910.20(e) provides that "...the employer shall assure that access is provided in a reasonable time, place, and manner, but in no event later than fifteen (15) days after the request for access is made".

29 CFR 1910.1200 and 1926.59, paragraph (e)(1) states that "Employees shall develop, implement, and maintain at the workplace, a written hazard communication program..."

Paragraph (e)(1) would seem to conflict with 1910.20(e)(4) in that "maintain" could mean that it must be present at all times at the work site, rather than meaning the maintenance of such a program. However, since 1910.20(e)(4) is specific to the time frame required to produce such a document, it would seem that the specific overrules the general if "maintain" means "present".

While I would agree that it is good safety practice to have such a document "present" at each work site, please inform me if employers must have their written program at the work site at all times to be in compliance with either 1910.1200 or 1926.59.

RECORD ID

4119

STANDARD NUMBER
INFORMATION DATE

1910.1200(a)(2); (e)(3); (e)(4); (h); (h)(2)(iv)
910130

ABSTRACT

An Interpretive Letter discussing the HCP requirements of employers at multiemployer worksites. An example of a citation issued under 1910.1200(e): Two Department of Defense Contract Management (DCMR) employees were working at the (Company A) worksite. DCMR did not have a written HCP onsite for its employees, but relied on that of "host" employer (Company A). The DCMR employees were cited in violation of 1910.1200. CPL 2-2.38C, since issued, states that each employer must have its own written HCP in place and available to all employees, regardless of worksite or office location. If an employer is going to rely on another employer's HCP, that reliance must be so stated in his own written HCP, as well as how the other employer's HCP will be made available to his employees.

INTERPRETATION

29 CFR 1910.1200(a)(2); (e)(3); (e)(4); (h); (h)(2)(iv)

JAN 30, 1991

MEMORANDUM

SUBJECT: Hazard Communication Interpretation Request from the (City) Area Office

This is in response to your memorandum of November 19, 1990, which transmitted a November 6 request from the (City) Area Office regarding interpretation of the written hazard communication program (HCP) requirements of employers on multi- employer worksites. I apologize for the delay in this response.

The situation as we understand from your memorandum involves a citation issued to the Department of Defense Contract Management (DCMR) for exposing two of their employees to the same hazards that the employees of the (Company A) in (City), (State), were exposed to. The DCMR employees were working at the (Company A) worksite. The DCMR did not have a written HCP on-site for its own employees (who were acting as quality assurance representatives) but was relying instead on the written HCP of their "host" employer, (Company A). According to your description, DCMR's employees "were aware of" and had received hazard communication training from (Company A), which was provided to them as part of their host employer's hazard communication program. You questioned whether this practice, the use of (Company A)'s HCP for the DCMR employees on (Company A)'s site, meets the intent of the standard, and if not, what must DCMR do to comply.

All employers with employees exposed to hazardous substances must develop, implement and maintain a written HCP. CPL 2-2.38C stresses, on page A-13, that "programs must be developed whether the employer generates the hazard or the hazard is generated by other employers." And, on page A-15, "All employers with employees potentially exposed to hazardous chemicals therefore must have in place an effective written hazard communication program that details how this intent will be met." As you point out in your memorandum, and as set forth in the directive, the "intent" of the standard is met when information on the hazardous chemical substances at the worksite is available to all affected employers and employees. This does not mean, however, that an employer can not have a written HCP. Each employer must have their own written hazard communication program which must be in place and available to all their employees.

The standard at paragraph (e)(2) requires that the written HCP specify the methods that employers at multi-employer worksites will use to share information with other employers and employees regarding MSDSs and access to them, precautionary measures and any labeling systems used at the workplace. If an employer is going to rely on the information concerning these requirements as set forth in another employer's HCP, he must specifically state so in his own written HCP. In other words, the "guest" or "non-host" employer would have to specify in his written HCP that his method of providing hazard communication information as required is to rely on the methods set forth in his host employer's written program. Employees of the "guest" employer have a right to know and to access the information that must be contained in their employer's hazard communication program. Where they go to get this information is their own employer's written HCP. The methods their employer is going to use to communicate chemical

hazard information to them must be set forth in writing in their own employer's written HCP, even if that method involves relying on a host employer's written program.

SOURCE LETTER

November 19, 1990

MEMORANDUM

SUBJECT: Request for Interpretation/Clarification of 29 CFR 1910.1200(e)(4) and 1910.1200(h)

The attached request dated November 6, 1990, from our (City) Area Office is forwarded for your review and clarification of subject standard.

NOV 6, 1990

MEMORANDUM

SUBJECT: Interpretation Clarification of Standard/CPL

This request for interpretation/clarification of 29 CFR 1910.1200(e)(4) and OSHA Instruction CPL 2-2.38C, dated October 22, 1990, is submitted for your appropriate action.

This office recently conducted an inspection at (Company A) in (City), (State), at which two employees of the Department of Defense Contract Management (OS ANCI) were stationed as quality assurance representatives. As they were exposed to the same potential as the (Company A) employees, a Notice of Unsafe or Unhealthful Working Conditions was issued on September 24, 1990, and an extension of abatement date to November 19, 1990, was granted on October 23, 1990.

The Notice contained two violations: i.e., 29 CFR 1910.1200(e)(4) and 1910.1200(h). Although this notice was issued prior to the issuance of CPL 2-2.83C, this CPL raises some questions as to the abatement of the violations. In addition, the OCMD has the same situation throughout the United States. Therefore, this interpretation and application of abatement has nationwide consequences for that Agency.

As you are aware, 1910.1200(e)(4) requires each employer to maintain a copy of their written Hazcomm program onsite and available to employees. The second full paragraph on page A-15 of the CPL states that the intent of the HCS is met on multi-employer worksites when information on the hazards of chemical substances at the worksite is available to all affected employers and employees. It also states that all employers with employees potentially exposed to hazardous chemicals therefore must have in place an effective written HCP that details how this intent will be met. (emphasis added)

The DCMR employees are aware of, and have been trained as a part of the Hazcomm program for the host, (Company B) Therefore, the questions for interpretation are (1) has the intent of the HCP been met by the use of the (Company A) HCP for DCMR employees; and (2) if the intent has been met, what should be contained in the DCMR HCP onsite that will detail how this intent will be met, or should there be one at the site for DCMR employees.

RECORD ID 1879

STANDARD NUMBER 1910.1200(f)(7); 1910.1200(f)(6); 1910.1200(f)(5); 1910.1200(f)(2)
INFORMATION DATE 890711

ABSTRACT A clarification regarding the label requirements of the HCS. Under the HCS, the manufacturer, importer, and distributor are required to label each container of hazardous chemicals (f)(1). Therefore, each container of hazardous chemicals should have existing labels that comply with the requirements of the rule. When shipping, there is no requirement to relabel the containers, or the places where they are stored. If a hazardous chemical is transferred into an unmarked container, that container must be labeled with the required information, unless immediately used by the employee who performed the transfer (1910.1200(f)(7)).

INTERPRETATION 29 CFR 1910.1200(f)(7); 1910.1200(f)(6); 1910.1200(f)(5);
1910.1200(f)(2)

JUL 11, 1989

This is in response to your letter of June 9, requesting a clarification of the label requirements of the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Under the HCS, the manufacturer, importer, or distributor is required to label each container of hazardous chemicals. Therefore, each container of hazardous chemicals received should have existing labels that comply with the requirements of the rule, and your clients would not be required to relabel the containers, shelves or doors. If the hazardous chemicals are transferred into unmarked containers, these containers must be labeled with the required information, unless the container into which the chemical is transferred is intended for the immediate use of the employee who performed the transfer. As stated in paragraph (f)(7) of the rule:

"The employer is not required to label portable containers into which hazardous chemicals are transferred from labeled containers, and which are intended only for the immediate use of the employee who performs the transfer."

Section 29 CFR 1910.1200(f)(6) states the following:

"The employer may use signs, placards, process sheets, batch tickets, operating procedures, or such written materials in lieu of affixing labels to individual stationary process containers,...."

As stated in your letter, your clients store various types of chemicals in containers on shelves or in cabinets and drawers; however, these containers are not considered stationary (not capable of being moved) process containers. Therefore, each container must convey the information outlined in section (f)(5).

RECORD ID

1893

STANDARD NUMBER1910.1200(c); (d)(1); (f)(1)(ii); (f)(5); (g)(6); (h)(2)(i); (Appendix A);
1910.1001(h)(1); (i)(1); 1926.58(a)(2); (e)(1); (Appendix G)**INFORMATION DATE**

890726

ABSTRACT

An Interpretive Letter regarding HCS labeling requirements. OSHA does allow the use of standardized in-plant labeling systems for containers of hazardous chemicals that do not leave the workplace, and where in-house training programs associated with the HCP are effective in educating employees about these systems. In-plant labeling systems are not permitted on shipped containers unless all required label data with appropriate health hazard information, including target organ effects, are affixed to the containers. In addition, the letter on a separate issue discusses the construction industry asbestos standard, 1926.58. Issues discussed include small scale short duration, protective clothing, and negative pressure enclosures.

INTERPRETATION29 CFR 1910.1200(c); (d)(1); (f)(1)(ii); (f)(5); (g)(6); (h)(2)(i); (Appendix A);
1910.1001(h)(1); (i)(1); 1926.58(a)(2); (e)(1); (Appendix G)

JUL 26, 1989

This is in response to your correspondence of June 27, addressed to Ms. R, on behalf of your constituent, Mr. M of (Company), regarding the label requirements of the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS), 29 CFR 1910.1200.

The HCS requires shipped containers of hazardous chemicals to be labeled, tagged or marked with the identity of the hazardous chemicals, appropriate hazard warnings, and the name and address of the chemical manufacturer, importer, or other responsible party. (Company A) was issued a citation for not providing appropriate hazard warnings on its containers of hazardous chemicals which are shipped to downstream employers. An in-plant labeling system was used as labels for their shipped containers, which did not include appropriate health hazard information including the target organ effects.

Contrary to the statements of Mr. M and his counsel, the preamble to the HCS published on August 24, 1987, in the Federal Register, includes a lengthy discussion on what constitutes an appropriate hazard warning required to be included on the label. Specific information regarding health and physical hazards is required on the label to comply with the rule. The terms "health" and "physical" hazards are defined in the HCS. The definition for health hazard includes the target organs which the chemicals affect. This information must be included in any appropriate health hazard warning. In the situation where a target organ effect is not known, a general warning statement is permitted. In all other cases, the hazard warning serves as the immediate warning of the health and physical hazards of the chemical.

OSHA does allow the use of standardized in-plant labeling systems for containers of hazardous chemicals which do not leave the workplace. These labels, incorporating rating systems, often contain less detailed information on the chemical hazards than is required by the rule. However, when these labels are used in conjunction with material safety data sheets (MSDSs) which provide the required detailed information and training, as required by the standard, they are permitted for in-plant containers. In-plant labeling systems are not permitted for shipped containers unless the required label information is affixed to the container. Shipped container labels may provide the only hazard information in certain situations and there is no guarantee that downstream employees handling or using the chemicals will be able to understand the less detailed information permitted on in-plant labels.

Regarding Mr. M's concern about the coverage of hazardous chemicals physically bound in a material, the standard does not cover hazardous chemicals when the material is bound in such a way that employees cannot be exposed. If there is no exposure, either under normal conditions of use or in a foreseeable emergency, then the chemical is not covered by the standard, and the hazard information for the chemical would not be required on the label. However, if under normal conditions of use, an action is performed downstream on the product that could release the hazardous chemical, then the substance would be covered under the HCS and the provisions of the standard would apply.

Mr. M also stated that he is not receiving hazard information from his suppliers. Chemical manufacturers and importers are required to evaluate the hazards of the chemicals they produce or import and to convey the hazard information to downstream employers and distributors in the form of labels and MSDSs. If the information Mr. M receives from his suppliers is deficient, he should write to both the product manufacturer and supplier for corrected labels or sheets. In the event he does not receive the corrected information, Mr. M should send copies of the deficient items to his nearest OSHA Area Office and request assistance in obtaining properly completed labels and MSDSs.

Mr. M is also concerned that all chemical manufacturers be required to comply with the HCS requirements. OSHA would like to point out that all chemical manufacturers and importers have been required to label shipped containers of hazardous chemicals with the appropriate hazard information since November 25, 1985.

RECORD ID 1903

STANDARD NUMBER 1910.1200(f)(1)(ii); (f)(5)(ii); (f)(6); (f)(7)
INFORMATION DATE 890216

ABSTRACT An Interpretive Letter regarding the HCS labeling requirements on chemicals shipped from one plant to another within the same company. An employer must label hazardous chemicals transported to another plant of the same company, whether within or across state lines. Section 1910.1200(f)(5) requires an employer to label all chemicals in the workplace with the identity of the hazardous chemicals and appropriate hazard warnings.

INTERPRETATION 29 CFR 1910.1200(f)(1)(ii); (f)(5)(ii); (f)(6); (f)(7)

FEB 16, 1989

This is in response to your letter of September 28, 1988, addressed to Ms. S, regarding the requirements for the labeling of chemicals leaving the workplace under the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard 29 CFR 1910.1200. Please accept our apology for the delay in response.

Hazardous chemicals transported to another plant of the same company whether across State lines or within the State are required to be labeled by the employer. 1910.1200(f)(5) requires the employer to label all chemicals in the workplace with the identity of the hazardous chemicals and appropriate hazard warnings. The two exceptions to this provision are when alternative methods are used to identify stationary process containers and when hazardous chemicals are transferred to portable containers for the immediate use of the employee that performed the transfer.

RECORD ID

1907

STANDARD NUMBER
INFORMATION DATE

1910.1200(f)(6); (f)(7); (g)(1); (g)(2)(iii)
871026

ABSTRACT

MSDS sheets are required on each hazardous chemical manufactured that can potentially present a physical or health hazard during normal use of the product. Labels may be transmitted with an initial shipment, or with appropriate material safety data sheets provided prior to or at the time of the first shipment. Warning labels may be affixed directly to a product.

INTERPRETATION

29 CFR 1910.1200(f)(6); (f)(7); (g)(1); (g)(2)(iii)

OCT 26, 1987

This is an update to our response of October 1 to your inquiry concerning your labeling and material safety data sheet responsibilities under the expanded Hazard Communication Standard.

As you explained, your company manufactures stump removal equipment. Each stump router cutter head has carbide tips on the cutter teeth. Your customers sharpen the cutter teeth by grinding the carbide tips.

Since the cutter teeth are solid metal, the required label may be transmitted to your customers at the time of initial shipment and need not be included with subsequent shipment to the same employer unless the information on the label changes. The label may be transmitted with the initial shipment itself, or with appropriate material safety data sheets that are to be provided prior to or at the time of the first shipment. You may also affix the warning label on every cutter head guard of the machine. Such action may assist your customers in complying with the Hazard Communication Standard.

As discussed with Ms. D of your company, material safety data sheets are required for each hazardous chemical which could potentially present a physical or health hazard during the normal use of the product. Thus, a material safety data sheet would be necessary for the carbide tips. For the general metal components, however, a material safety data sheet would only be necessary if routine use or maintenance would likely involve exposure to metallic dust or fumes. Listing the general metal components of steel products is acceptable if a material safety data sheet is necessary. It is not a requirement to send material safety data sheets to nonmanufacturing customers who were shipped hazardous chemicals prior to September 23, 1987.

RECORD ID 1909

STANDARD NUMBER 1910.1200(d)(2); (f)(4); 1910.1048(m)(3)(I); (Appendix A)
INFORMATION DATE 870807

ABSTRACT An interpretive letter regarding cancer warning labels on formaldehyde and products containing formaldehyde. Warning labels stating the carcinogenic potential of formaldehyde are required under the Hazard Communication Standard, per section (d)(4).

INTERPRETATION 29 CFR 1910.1200(d)(2); (f)(4); 1910.1048(m)(3)(I); (Appendix A)

AUG 7, 1987

This is in response to your letter regarding cancer warning labels for formaldehyde and products containing formaldehyde.

Although the Occupational Safety and Health Administration (OSHA) is conducting rulemaking with regards to formaldehyde and a final rule is due Fall 1987, it would be inappropriate to stay enforcement activities at this time for labeling requirements under the Hazard Communication Standard. The Hazard Communication Standard requires employers to evaluate the chemicals they produce and the information concerning their hazards be transmitted to affected employers and employees within the manufacturing sector.

Presently, there are several valid, positive studies indicating human carcinogenicity. Accordingly, label warnings stating the carcinogenic potential of formaldehyde is required under the Hazard Communication Standard and therefore is not, as you state, an ad hoc enforcement action by the Agency.

In addition, enforcement of labeling requirements under the Hazard Communication Standard will not prejudice the pending rulemaking. OSHA presently does not expect any final rule for formaldehyde to significantly change the information already required on existing labels.

RECORD ID 1911

STANDARD NUMBER 1910.1200(f)(1)(II); (f)(5)
INFORMATION DATE 870504

ABSTRACT An Interpretive Letter regarding evaluation of a labeling system designed to meet HCS requirements. A labeling system that includes the chemical identity, health hazard warnings and a numerical hazard rating system would meet the in-plant labeling requirements of the Hazard Communication Standard. For shipped containers, a labeling system cannot rely on a numerical rating system, which would have to be supplemented with the appropriate hazard warning(s) in a narrative form and include the target organ effects as well as the physical hazards of the chemicals.

INTERPRETATION 29 CFR 1910.1200(f)(1)(II); (f)(5)

MAY 4, 1987.

This is in response to your letter of April 14 regarding your company's labeling system which was designed to meet the requirements of the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard.

The Hazard Communication Standard requires employers to label each container of hazardous chemicals in the workplace with the following information:

- (i) Identity of the hazardous chemical (s) contained therein; and
- (ii) Appropriate hazard warnings.

In addition, if containers of hazardous chemicals are shipped, the name and address of the chemical manufacturer, importer, or other responsible party must also appear on the label.

The standard's preamble also recognizes the existence of the numerous labeling systems that are currently in use in industry. The intent of the standard is to permit the use of these systems as long as the employer's entire Hazard Communication Program (HCP) is effective. In assessing an employer's compliance with the standard, an OSHA compliance officer will evaluate the effectiveness of the employer's in-plant labeling system through a review of the employer's material safety data sheets and training program. An effective program would be one that ensures that employees are aware of the hazardous effects of the chemicals they may be exposed to as well as meeting the other basic requirements of the standard. Hazard warnings used as part of in-plant labeling systems, in combination with the HCP, are deemed to be effective when they promote safe handling and use of hazardous chemicals in the workplace.

From the label decal enclosed with your letter it appears that the chemical identity and health hazard warnings appear, in addition to a numerical hazard rating system. As long as the hazard warnings and/or ratings are correctly selected it appears your labeling system would meet the in-plant labeling requirements of the Hazard Communication Standard. Please note that for shipped containers your labeling system could not rely on a numerical rating system and would have to be supplemented with the appropriate hazard warning(s) in a narrative form and include the target organ effect as well as the physical hazards of the chemicals.

RECORD ID**1912**

STANDARD NUMBER
INFORMATION DATE**1910.1200(c); (d)(2); (Appendix A); (Appendix B)**
870120

ABSTRACT

An Interpretive Letter clarifying the terms "appropriate hazard warning" and "mandatory" as used in the Standard. When evaluating the appropriateness of specific hazard warnings, the HCS definitions 1910.1200 (c) for "physical" and "health" hazards must be referred to. In addition, the definition of "Hazard Warning" (c) indicates the intent of the standard requirement. The HCS at 1910.1200(d) states, "Appendix A shall be consulted for the scope of health hazards covered." The term "mandatory" refers to the requirement to consult Appendix A for the scope of health hazards.

INTERPRETATION**29 CFR 1910.1200(c); (d)(2); (Appendix A); (Appendix B)****JAN 20, 1987**

This is in response to your letter of December 13, 1986, requesting clarification of the terms "appropriate hazard warning" and "mandatory" as used in the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard.

Concerning "appropriate hazard warning," OSHA's guidelines to its compliance staff on the Hazard Communication Standard OSHA Instruction CPL 2-2.38A Change 1, page A-11, enclosed states that the specific hazards indicated in the standards definition for "physical" and "health" hazards must be used in evaluating the appropriateness of specific warnings. In the example you presented, if the only scientific information available is the LC(50) of 5 milligrams per kilogram administered orally to rats, "highly toxic if ingested" may be the appropriate warning. If the chemical causes specific target organ effects when ingested, then the specific target organ effects would be appropriate.

As stated in Appendix B of the Hazard Communication Standard, the hazard determination is performance-oriented and relies heavily on the professional judgment of the evaluator. Nevertheless, the hazard determination must examine all relevant data and produce a scientifically defensible evaluation. The results of any studies which are designed and conducted according to established scientific principles must be reported if statistically significant health effects are found. If these statistically significant health effects are known to the target organ level, then these health effects would be "appropriate."

If only general health effects are known, then it would be "appropriate" to list these on the label.

The Hazard Communication Standard at 29 CFR 1910.1200(d)(2) states, "Appendix A shall be consulted for the scope of health hazards covered." The term "mandatory" refers to the requirement to consult Appendix A for the scope of health hazards.

RECORD ID 1928

STANDARD NUMBER 1910.1200(f)(6); 1910.1200(f)(5); 1910.1200(b); 1910.1200(c)
INFORMATION DATE 881110

ABSTRACT An Interpretive Letter indicating that lift trucks and other machines found in the workplace are not containers for purposes of the HCS, per 1910.1200(c), and do not require labeling as to any hazardous chemicals used to operate them. Other machines found in the workplace that may contain hazardous chemicals, but do not fall under the definition of container, do not have to be labeled according to the HCS. Process equipment, however, which incorporates containers as defined by the HCS, such as mixers and blenders, must be labeled according to the rule.

INTERPRETATION 29 CFR 1910.1200(f)(6); 1910.1200(f)(5); 1910.1200(b); 1910.1200(c)

NOV 10, 1988

This is in response to your letter of October 25, regarding clarification of the Hazard Communication Standard (HCS) 29 CFR 1910.1200 container labeling requirements.

The term container as defined in 29 CFR 1910.1200(c) means any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank or the like that contains a hazardous chemical. The definition specifically states that pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle are not considered to be containers. Therefore, lift trucks would not be considered a container for purposes of the HCS and would not require labeling regarding hazardous chemicals used to operate them. This does not exempt such chemicals from coverage by the rule; it simply eliminates the need to label once they are placed in the vehicle.

Machines found in the workplace that may contain hazardous chemicals do not fall under the definition of container, therefore the machine components would not have to be labeled according to the HCS. If there is the potential for exposure to the hazardous chemicals associated with these machines, the article definition would also not apply and these chemicals would be covered by the rule. Again, the need to label the machine components once the hazardous chemicals are in place is eliminated.

Process equipment however, which incorporates containers as defined by the HCS, such as mixers and blenders, must be labeled according to the rule. The employer may use signs, placards, process sheets, batch tickets, operating procedures, or other such written materials in lieu of affixing labels to individual stationary process containers, as long as the alternative method identifies the containers to which it is applicable and conveys the information required by paragraph (f)(6) of the standard.

RECORD ID 1975

STANDARD NUMBER 1910.1200(f)(1)(II)
INFORMATION DATE 880627

ABSTRACT An Interpretive Letter regarding overwarning on hazard labels. Labeling accuracy depends on whether or not each product in the line possesses all of the listed hazards.

INTERPRETATION 29 CFR 1910.1200(f)(1)(II)

JUN 27, 1988

MEMORANDUM

SUBJECT: Overwarning on Hazard Labels

This is in response to your memorandum of May 18 on the above subject. Specifically, you wish to know whether it is acceptable under the Hazard Communication Standard (HCS) for a company to use the same comprehensive list of health hazard target organs on the warning labels for an entire line of products.

Acceptability in terms of compliance with the HCS will depend upon whether, in fact, each product possesses all of the listed hazards. Any target organ hazard which is not demonstrated by at least one valid positive study for the chemical which is so labeled is not an appropriate hazard warning.

RECORD ID**2412**

STANDARD NUMBER
INFORMATION DATE**1910.1200(f)(1)(ii); 1910.1200(f)(4); 1910.1048(m)(3)(i)**
860909

ABSTRACT**An update of carcinogenic properties of formaldehyde-containing products and HCS labeling formats.**

INTERPRETATION**29 CFR 1910.1048(m)(3)(i); 1910.1200(f)(1)(ii); 1910.1200(f)(4)****SEP 9, 1986****MEMORANDUM FOR ALL REGIONAL ADMINISTRATORS****SUBJECT: Labeling of Formaldehyde-Containing Products Under the Hazard Communication Standard**

Several parties have asked for guidance on the subject issue. The Hazard Communication Standard (HCS) does not establish a clear threshold for the inclusion of hazard warnings on product labels. The term "appropriate hazard warning" found under 29 CFR 1910.1200(f) is the determining factor in the standard's labeling requirements.

While it is not the Agency's intent to provide specifications that might erode the standard's inherent flexibility, it is necessary to establish guidelines to ensure uniformity in our enforcement evaluations of employer programs. Guidelines were published originally on May 16, 1986 and further refined recently on July 18 in OSHA Instruction CPL 2-2.38A and CPL 2-2.38A CH-1 (pages A-12 through A-18). The guidelines provide criteria that are summarized in Table 1 of the directive on page A-18. These guidelines establish the presence of a single valid, positive study showing human evidence of carcinogenicity as a sufficient basis for the inclusion of a carcinogen warning on product labels.

In a recent formaldehyde rulemaking proposal (50 FR 50412), the Agency considered the epidemiological evidence as suggestive based on a consideration of all available evidence. There are, however, several valid, positive studies showing human carcinogenicity. The following are examples (all exhibit numbers refer to the formaldehyde docket, number H225 and H225A):

1. Stroup, Exhibit 73-42
2. Acheson et al., Exhibit 42-1
3. Blair et al., (recent NCI report)
4. Olsen et al., Exhibit 73-36

In addition, formaldehyde has been tested and shown to cause cancer in three separate animal studies by CIIT (Exhibit 42-131), New Research (Exhibits 42-3, 42-4) and (Exhibit 73-146) Carcinogenicity has also been documented through several short term essays.

Health professionals must employ a large measure of judgment when making decisions about the appropriateness of a label warning. They must keep in mind that the HCS is primarily an information standard and as such expresses an intent to disclose information rather than to withhold information. Accordingly label warnings stating the carcinogenic potential for formaldehyde will generally be required under the HCS.

The specific words or phrases used to warn of formaldehyde carcinogenicity will vary. Compliance officers should expect to see warnings such as "CARCINOGEN," "POTENTIAL CARCINOGEN," and "ANIMAL CARCINOGEN." Others will incorporate modifying statements such as "INCONCLUSIVE EVIDENCE OF HUMAN CARCINOGENICITY." Wide latitude should be permitted as long as the label being evaluated warns of the potential cancer risk.

RECORD ID

2932

STANDARD NUMBER
INFORMATION DATE

1910.1200(c); (d)(5)(iv); (f)(1)(i); (f)(4)
891204

ABSTRACT

An Interpretive Letter regarding the carcinogen labeling requirements of the HCS. The carcinogen labeling requirement is questioned for nickel powder, which is part of a "mixture," which does not separate or in itself become airborne under normal use, or in the case of an aerosol, the mixture, because of other ingredients, does not spray respirable-size particles. Labeling materials such as carcinogens might be appropriate, if exposure, per section (c), could occur, either routinely or accidentally, via any route of entry.

INTERPRETATION

29 CFR 1910.1200(c); (d)(5)(iv); (f)(1)(i); (f)(4)

DEC 4, 1989

This is in response to your letter of October 26 to the Occupational Safety and Health Administration (OSHA) requesting an interpretation of the carcinogen labeling requirements of the Hazard Communication Standard (HCS), 29 CFR 1910.1200.

The HCS requires hazard determinations to be performed for those chemicals to which employees may be actually or potentially exposed under normal conditions of use or in a foreseeable emergency at the workplace. In your letter, you question the carcinogen labeling requirement for nickel powder which is part of a "mixture which does not separate or in itself become air-borne under normal use or perhaps in the case of an aerosol, and the mixture, because of other ingredients, does not spray respirable size particles." On August 8, 1988, OSHA published in the Federal Register a Notice of Proposed Rulemaking proposing various modifications to the HCS. In this publication, on page 29831, the Agency discusses the applicability of the rule to materials chemically bound in solids or liquid formulations in such a manner that they cannot be released under normal conditions of use or in a foreseeable emergency. A copy of the referenced page is enclosed. I encourage you to review the Agency's position on the applicability of the rule under these conditions as presented in the Proposed HCS Rule.

You should note the Agency's discussion stresses chemically-bound hazardous components. If the nickel you inquire about is chemically bound in such a way that it will not be released and cannot present the potential for exposure, the presence of that chemical does not have to be indicated and does not have to be considered in the hazard determination process. This may not be applicable to the aerosol example you gave in your letter, since aerosolization often creates the potential for the existence of an inhalation hazard. The ability to "spray respirable size particles" can occur whenever an aerosol is produced, depending on conditions under which the aerosol is generated.

Under the HCS, it is the responsibility of the chemical manufacturer to determine the hazard of the chemicals he or she produces if they "could be released in concentrations" that "could present a health hazard to employees" (see 1910.1200(d)(5)(iv)). The procedures used by the chemical manufacturer in his or her hazard determination must additionally be in written form and be made available to an OSHA compliance officer upon request.

Furthermore, the HCS defines employee exposure as including ingestion, skin contact and absorption, in addition to inhalation. The HCS's definition of "exposure" includes potential exposure, defined as accidental or possible exposure. In both the conditions described in your letter, the potential for exposure via routes of entry other than inhalation exist. The hazard to the workers who handle the nickel powder may not just be "via inhalation" as you indicate in your letter. Carcinogen notification on the label may be appropriate, therefore, if exposure could occur, either routinely or accidentally, via any of the various routes of entry.

Again, hazard determinations are always the responsibility of the chemical manufacturer. OSHA does not "exempt" specific manufacturers from the responsibilities of the Hazard Communication Standard. It is up to the chemical manufacturer to anticipate the downstream uses and potential exposure scenarios of the hazardous chemicals he produces and label his products accordingly. If a hazardous chemical could be released in such a way as to result in employee exposure, employees have the right to be informed of this. If there is not the potential for exposure, the chemical is not subject to the rule.

RECORD ID

3314

STANDARD NUMBER
INFORMATION DATE

1910.1200(f)(1)(i); 1910.1200(b)(2); 1910.1200(g)(2)(i)(C)(2)
900320

ABSTRACT

An Interpretive Letter regarding the consideration of exposure potential when determining HCS on hazard warnings for product labels. Suppliers may not exclude hazards based on presumed levels of exposure downstream (i.e., omitting a carcinogenic hazard warning because, in the supplier's estimate, presumed exposure will not be high enough to cause the effect).

INTERPRETATION

29 CFR 1910.1200(f)(1)(i); 1910.1200(b)(2); 1910.1200(g)(2)(i)(C)(2)

MAR 20, 1990

Thank you for your letter of November 15, 1989, to the Occupational Safety and Health Administration's (OSHA) Directorate of Health Standards. Your letter was referred to the Directorate of Compliance Programs for response, and I apologize for the delay of this letter to you. You requested a clarification of OSHA's policy on hazard warnings required on product labels as per the Hazard Communication Standard (HCS), 29 CFR 1910.1200.

In your letter you specifically ask: "... is the consideration of exposure potential acceptable in determining whether health hazard warnings should be included on the labels?" OSHA policy on compliance with the provisions of the HCS is that exposure calculations are not permitted in determining whether a hazard must appear on a label. If there is a potential for exposure, (other than in minute, trace or very small quantities), the hazard must be included when well-substantiated. Suppliers may not exclude hazards based on presumed levels of exposure downstream (i.e., omitting a carcinogenic hazard warning because, in the supplier's estimate, presumed exposure will not be high enough to cause the effect). The hazard is an intrinsic property of the chemical. Exposure determines degree of risk and should be addressed in training programs by the downstream employer. It should be noted that the General Carbon decision confirmed OSHA's longstanding interpretation of the rule's requirements -- it does not represent a new or different position on those issues.

As you point out in your letter, OSHA's compliance instruction for the HCS, CPL 2-2.38B, states that "it will not necessarily be appropriate to warn on the label about every hazard listed in the MSDS." The weight of the evidence for each hazard reported on the MSDS is to be considered when determining if the hazard needs to be included on the label, not the predicted downstream exposure amounts. Of course, the hazardous chemical must be present in such a manner that it is available for exposure, i.e., if the hazardous chemical is an ingredient in a mixture, and the chemical is bound in such a manner that it is incapable of resulting in exposure, then information on its potential health effects would not have to be included on either the MSDS or the label.

As you may be aware, OSHA staff met with ANSI representatives during the development of the ANSI labeling guidelines. At that time, we discussed the implications of the language regarding exposure assessments, and also discussed our concerns that this approach was not consistent with the HCS. Our understanding, based on those meetings, is that the ANSI committee members believe the differences between the ANSI standard and the HCS are merely semantic in nature, and not substantive. They believe that a label properly prepared in accordance with the ANSI guidance will meet OSHA's requirements as stated herein. We appreciate their efforts in developing the ANSI labeling standard, which we believe serves as a beneficial tool to employers trying to comply with the requirements of the Hazard Communication Standard. However, employers must continue to ensure that their hazard determinations are based on the requirements of the HCS itself, using the ANSI standard or other such documents as supplementary information and guidance.

RECORD ID

4056

STANDARD NUMBER
INFORMATION DATE

1910.1200(f)(3)
901109

ABSTRACT

An Interpretive Letter regarding container labeling requirements under the HCS. OSHA does not regulate the outer shipping container of a hazardous material. The hazard warning labeling requirement is only enforced and limited to the actual container holding the hazardous substance. If a shipping container is the actual container holding the hazardous substance, it is to be labeled in accordance with the requirements of the HCS, but also in such a way that the "appropriate hazard warning" does not interfere with any DOT required shipping labels or container shipping information.

INTERPRETATION

29 CFR 1910.1200(f)(3)

NOV 9, 1990

Thank you for your letter of October 24, regarding interpretation of the Occupational Safety and Health Administration's (OSHA) container labeling requirements under the Hazard Communication Standard (HCS), 29 CFR 1910.1200(f).

Your letter presents the following interpretation which you received from Ms. J of OSHA's Training Institute regarding this issue:

"The Occupational Safety and Health Administration, does not regulate the outer shipping container of hazardous material. The hazard warning labeling requirement is only enforced and limited to the actual container holding the hazardous substance, i.e. bottle, tube, can, jar, etc. There is no OSHA requirement for hazardous warning labels on the outer shipping container."

We concur with this interpretation but would like to stress that if the shipping container itself is the "actual container holding the hazardous substance" then it would have to be labeled in accordance with the requirements of the HCS. Further, section (f)(3) of the standard requires that:

"Chemical manufacturers, importers, or distributors shall ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged, or marked in accordance with this section in a manner which does not conflict with the requirements of the Hazardous Materials Transportation Act U.S.C. 1801 et seq. and regulations issued under the Act by the Department of Transportation."

If the shipping container is the actual container holding the hazardous chemical, it would have to be labeled in accordance with the HCS, but labeled in such a way that the "appropriate hazard warning" did not interfere with any DOT required shipping labels or container shipping information.

We hope this clarifies this issue for you. For your further reference, we are enclosing a copy of OSHA's recently revised compliance instruction, CPL 2-2.38C, "Inspection Procedures for the Hazard Communication Standard," (issued October 22, 1990). This document contains interpretative language and guidance on OSHA policies and procedures for compliance with the requirements of this performance-oriented standard.

SOURCE LETTER

OCT 24, 1990

This is to request your assistance in interpreting CFR 29 1910.1200 (f), Labels and Other Forms of Warning. Our Safety Officer has been in contact with your associates at the OSHA Technical Institute in Des Plaines, Illinois. Ms. J. informed us that her interpretation of this regulation, after discussion with your office, is the following:

"The Occupational Safety and Health Administration, does not regulate the outer shipping container of hazardous material. The hazard warning labeling requirement is only enforced and limited to the actual container holding the hazardous substance, i.e. bottle, tube, can, jar, etc. There is no OSHA requirement for hazardous warning labels on the outer shipping container."

RECORD ID 4116

STANDARD NUMBER 1910.1200(d)(5)(iv); (f)(4); 1910.1000
INFORMATION DATE 910211

ABSTRACT An Interpretive Letter regarding hazard warning label requirements for crystalline silica under the HCS. The HCS mandates an appropriate warning label on a product containing greater than 0.1 percent crystalline silica or total quartz by weight or volume, as determined by analysis of a bulk sample of the original product. Also, if a material containing less than 0.1 percent of the hazardous chemical could be released in concentrations that would exceed an established PEL or ACGIH-TLV, or could present a health hazard to employees, the material would be assumed to present a hazard. In addition, if the anticipated downstream use of a product has the potential to generate airborne concentrations greater than PEL or TLV(d)(5)(iv), warning labels are required.

INTERPRETATION 29 CFR 1910.1200(d)(5)(iv); (f)(4); 1910.1000

FEB 11, 1991

This is in further response to your letter of December 20, 1990, to the Occupational Safety and Health Administration (OSHA) regarding hazard warning label requirements for crystalline silica under OSHA's Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Your letter specifically sought interpretation and clarification on two issues on hazard determination under the HCS. These questions were:

1. Under the HCS, is the warning label threshold for crystalline silica 0.1% by weight or volume or by respirable portion?
2. If the warning threshold for crystalline silica is 0.1 percent respirable, can you define or cite for us an "approved" method or methods for the measurement of the respirable portion that is applicable to bulk samples.

Response:

Under the HCS, appropriate hazard warning labels are required for materials containing more than 0.1 percent crystalline silica by weight or volume which have anticipated downstream uses where crystalline silica may become airborne and present an inhalation hazard to employees working with that material. This is due to the fact that oftentimes free silica particles of respirable size are created in the processes (sand blasting, grinding, etc.) utilizing silica particles which initially may be too large to be classified as respirable. A further discussion of OSHA'S position follows.

In determining compliance with OSHA's permissible exposure limits (PEL's), 29 CFR 1910.1000, OSHA industrial hygienists collect and analyze personal breathing zone samples taken during the course of an investigation to determine employee exposure to airborne levels of respirable silica. These samples collect the respirable fraction of the total dust to which an employee is exposed in the workplace air during the employee's normal course of duties, and as such, represent a measurable quantification of the airborne concentration of respirable silica. If OSHA were to find worker exposures to crystalline silica in a workplace and the product from which the exposure resulted was not labeled in accordance with the requirements of the HCS, a violation of 1910.1200 would be alleged.

However, the requirement to transmit information under OSHA's HCS is not tied to downstream exposure amounts (with the exception of subparagraph (d)(5)(iv) that, even if a carcinogen is present in a mixture in quantities less than 0.1 percent but could still be emitted in a level above an OSHA PEL, then that mixture must be assumed to present the same hazard as that hazardous component). OSHA's newly-revised compliance directive for the HCS, CPL 2-2.38C, issued October 22, 1990, provides further clarification, and is enclosed for your reference.

Statements made by OSHA regarding crystalline silica referred to the Agency's method of establishing compliance as just described. The HCS is based on the potential for exposure to a hazardous chemical, and in the case of crystalline silica, exposure can only occur when crystalline silica is present in respirable form.

While OSHA does not take bulk samples of products to analyze for respirable crystalline silica, our Analytical Laboratory has confirmed that there is no validated method to perform such an analysis. If employers were to use such a determination to avoid labeling their products, a validated method would have to be followed. Furthermore, as you know, handling and processing of many products that contain only large-sized particles of crystalline silica may generate respirable particles in the workplace. If OSHA were to find that workers are exposed to crystalline silica in respirable form from use of such a product in the workplace, a violation of the HCS would be alleged despite the bulk sample analysis.

For all practical purposes, therefore, the requirements of the HCS to provide an appropriate warning label, apply to products containing greater than 0.1 percent crystalline silica or total quartz by weight or volume, as determined by analysis of a bulk sample of the original product.

If the manufacturer has objective evidence to indicate that exposures to respirable silica would not occur when the product is used then this may be factored into the determination of an appropriate hazard warning. For example, we are aware that manufacturers of wallboard products that contain crystalline silica have taken numerous measurements during use of their products, and no respirable crystalline silica was detected. They have decided not to label based on this evidence.

SOURCE LETTER

DEC 20, 1990

In an effort to comply with the Hazard Communication Standard (HCS) we are requesting your "official interpretation" regarding hazard warning label requirements for crystalline silica. Although our workplace is directly regulated by MSHA, our clients, distributors and customers require our compliance with the OSHA HCS.

We understand that the HCS requires manufacturers to place warning labels on containers of hazardous chemicals that contain 0.1% or greater, of a carcinogen or potential carcinogen, if there is potential for exposure to the chemical under normal conditions or in foreseeable emergencies (29 CFR 1910.1200 (d)-(f)). We further understand that products containing 0.1% or greater crystalline silica require warning labels for potential occupational exposures because crystalline silica has been classified as Group 2A by the International Agency for Research on Cancer (IARC), (Monograph No. 42), one of the "established sources" under 1910.1200(d)(4).

During the past year we have observed that OSHA officials have made statements to the effect that hazard warnings are not required if the respirable portion of crystalline silica in a dry mineral products is less than 0.1%, despite a total crystalline silica content of greater than 0.1% by weight or volume. We have also learned that other firms have reportedly tested their mineral products for respirable silica content, found less than 0.1% by some measure of the "respirable" portion and have subsequently removed their hazard warning labels.

We are seeking your interpretation and clarification of two issues of hazard determination under the OSHA Hazard Communication Standard (HCS):

1. Under the HCS, is the warning label threshold for crystalline silica 0.1% by weight volume or by respirable portion?
2. If the warning threshold for crystalline silica is 0.1% respirable, can you define or cite for us an "approved" method or methods for the measurement of the respirable portion that is applicable to bulk samples.

To the best of our knowledge, there is no generally accepted analytical method to accurately identify and quantify the respirable portion of crystalline silica in bulk samples at the low concentration of 0.1%. We are aware of OSHA permissible exposure limits, however we have no way to control our customers' use

of our product or potential exposure, thus it appears that we must test bulk samples of our products for their silica content.

The recent new interpretations of OSHA HCS warning requirements for crystalline silica and subsequent actions have caused confusion. We see the lack of product warning labels being used as a marketing tool at the expense of a consistent HCS. The safety of workers must be of first importance and to achieve this requires a clear and uniform interpretation of the HCS with regard to crystalline silica.

RECORD ID

1941

STANDARD NUMBER
INFORMATION DATE

1910.1200 (f)(9)
880224

ABSTRACT

An Interpretive Letter regarding requirements for labels in a language other than English. Employers may add information on container labels in a language other than English, but there is no requirement that they do so. Legible warnings on containers, prominently displayed in English, are required.

(NOTE: The standard has changed)

INTERPRETATION

29 CFR 1910.1200 (f)(9)

FEB 24, 1988

This is in response to your letter of February 1, regarding the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (29 CFR 1910.1200).

Specifically your question is, must an employer provide materials, pursuant to the Hazard Communication Standard, in a language other than English? Paragraph 29 CFR 1910.1200(f)(9) states:

(8) The employer shall ensure that labels or other forms of warning are legible, in English, prominently displayed on the container, or readily available in the work area throughout each workshift.

Employers having employees who speak other languages may add the information in their language to the material presented, as long as the information is presented in English as well.

Thus, the employer may add information on the labels in a language other than English, but there is no requirement that they do so.

RECORD ID 1914

STANDARD NUMBER 1910.1200(g)(3); 1910.1200(g)(10)
INFORMATION DATE 880512

ABSTRACT A clarification of an Interpretive Letter on omitting a section on an MSDS when the information does not exist. Some OSHA personnel have mistakenly interpreted this omission as acceptable only on computer-generated MSDSs. However, because the standard is performance-oriented and no MSDS format is specified, employers are free to tailor an MSDS to a specific, noncarcinogenic chemical, (g)(10). If an employer develops an MSDS for a chemical that is not a carcinogen, a space addressing carcinogenicity does not have to be provided on the form. But once a section for chemical information is included on an MSDS, it must not be left blank, (g)(3).

INTERPRETATION 29 CFR 1910.1200(g)(3); 1910.1200(g)(10)

MAY 12, 1988

MEMORANDUM

SUBJECT: Clarification of Interpretation on Material Safety Data Sheet Requirements Under the Hazard Communication Standard.

Ms. B, of your staff, has brought to our attention a concern that was raised during the February meeting of the Occupational Safety and Health State Plan Association held in (City), (State). The concern has to do with a past interpretation (copy attached) made by this Directorate regarding leaving off a section on a material safety data sheet (MSDS) when the pertaining information does not exist. Some OSHA personnel have mistakenly interpreted this policy to apply only to computer generated MSDS.

It was and still is our policy that the interpretation applies to any type of MSDS. Since the standard is performance-oriented and no MSDS format is specified, employers are free to develop MSDSs that are designed for a specific chemical. For example, if an employer develops a MSDS for a chemical which is not a carcinogen, a space addressing carcinogenicity does not have to be provided on the form.

RECORD ID

1948

STANDARD NUMBER
INFORMATION DATE

1910.1200 (b)(1)
860414

ABSTRACT

An Interpretive Letter indicating that chemical manufacturers are not required to transmit MSDSs when providing potential customers with free samples for evaluation. OSHA supports transmitting hazard-related information that may not meet all of the HCS requirements, even though it is technically not required to do so under the standard. The Agency intends to deal with the issue of the transfer of hazardous chemicals without payment in a future rulemaking.

INTERPRETATION

29 CFR 1910.1200 (b)(1)

APR 14, 1986

This is in response to your letter of March 20 regarding the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS).

It appears that your interpretation that chemical manufacturers are not required to transmit material safety data sheets when free samples are provided to potential customers for evaluation is correct.

The last paragraph of your letter indicates that you will be forwarding hazard-related information that may not meet all of the HCS requirements. OSHA supports your intention to transmit the above-mentioned information even though you are technically not required to do so under the standard. The Agency intends to deal with the issue of the transfer of hazardous chemicals without payment in future rulemaking.

RECORD ID

1920

STANDARD NUMBER
INFORMATION DATE

1910.1200(g)(8); 1910.20(d)(1)(ii)(B)
871001

ABSTRACT

An Interpretive Letter regarding retention requirements for superseded MSDSs. The Hazard Communication Standard requires that employers maintain copies of material safety data sheets on each hazardous chemical used in the workplace. Employers may discard a material safety data sheet about a mixture, if the superseding data sheet includes the same hazardous chemicals as the original formulation. If the formulation is different, then the employer must maintain both old and new data sheets, or a record of the information on both MSDS's, for at least 30 years, (1910.20).

INTERPRETATION

29 CFR 1910.1200(g)(8); 1910.20(d)(1)(ii)(B)

OCT 1, 1987

This is in response to your letter of September 1, requesting an interpretation of the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard.

Specifically, your letter addresses the problem of what to do with superseded material safety data sheets. The Hazard Communication Standard requires that employers maintain copies of material safety data sheets for each hazardous chemical used in the workplace. Employers may discard a material safety data sheet for a mixture, if the new data sheet includes the same hazardous chemicals as the original formulation. If the formulation is different then the employer must maintain both data sheets for at least 30 years. OSHA standard, 29 CFR 1910.20, Access to employee Exposure and Medical Records defines "employee exposure records" to include material safety data sheets. The standard requires all employee exposure records to be maintained for at least 30 years.

An alternative to keeping both data sheets, however, is provided for in 29 CFR 1910.20. Under paragraph (d)(1)(ii)(B) of this standard employers may discard material safety data sheets if some record identifying the substances used, where it was used and when it was used is retained for at least 30 years. Therefore, an employer may discard the original data sheet and retain only the new data sheet if a record on the original formulation is maintained.

RECORD ID

1924

STANDARD NUMBER
INFORMATION DATE

1910.1200(g)(7); 1910.1200(b)(2)
890215

ABSTRACT

An Interpretive Letter indicating that a major distributor of health care products is not in retail trade, and is not considered a retail distributor under the rule. Thus, the distributor's duties to provide an MSDS at the time of the first shipment apply, rather than the "on request" method permitted in a retail establishment.

INTERPRETATION

29 CFR 1910.1200(g)(7); 1910.1200(b)(2)

FEB 15, 1989

This is in further response to your letter regarding the Hazard Communication Standard (HCS) promulgated by the Occupational Safety and Health Administration (OSHA). Your inquiry concerned the compliance responsibilities for a client that is a major distributor of health care products.

As you noted in your letter, the HCS specifies duties for distributors of hazardous chemicals. The term distributor is defined. The rule further indicates that "retail" distributors are treated somewhat differently in that they must inform commercial customers that material safety data sheets are available upon request, but do not have to provide the sheets automatically with first shipment of product as other distributors do.

However, your interpretation of the rationale for this distinction is not correct. The requirements and the distinction between "distributors" and "retail distributors" are not related to whether or not the customer uses the product or resells it as you described. The rule differentiates between "distributors" and "retail distributors" to recognize that while retail establishments primarily deal with the general public, selling products that are intended for personal or household consumption, they may also be a supply source for covered employers. The type of over-the-counter operations found in these facilities would make it difficult for most to determine at the point of purchase whether or not a customer is an employer who needs a material safety data sheet (MSDS). The term "on request" system is permitted to preclude the necessity of determining every customer's need for an MSDS at the time of purchase in a retail establishment, or of providing an MSDS to every customer, whether or not the customer is an employer.

According to the information provided in your letter, the company you represent distributes health care products to hospitals, physicians, clinics, and nursing homes, not the general public. The Standard Industrial Classification Manual indicates that the wholesale trade division of industry includes those establishments which are primarily engaged in selling merchandise to "industrial, commercial, institutional, farm, or professional business users." Your client's type of business clearly falls within this description of wholesale trade.

In particular, it appears that your client would be classified under either Standard Industrial Classification (SIC) Code 5086, which encompasses wholesale distributors of mechanical devices and other equipment used by physicians, dentists, etc., and/or SIC Code 5122, which includes wholesale distributors of drugs, drug proprietaries, druggists' sundries, and toiletries.

On the other hand, the retail trade division includes establishments that are primarily engaged in providing merchandise for personal or household consumption. It appears that the only types of business in the retail trade division that may handle the types of products you described would be drug stores and proprietary stores (SIC Code 5912). If a physician, clinic, etc. were to establish a commercial account with such a store for products covered by the rule, then the drug store would become a "retail distributor" under the standard and be required to inform the customer of the availability of the MSDS on request.

Clearly your client is not in retail trade, and would not be considered a retail distributor under the rule. Thus, the distributor's duties to provide the MSDS at the time of the first shipment apply to your client, rather than the "on request" method permitted in a retail establishment.

RECORD ID

1937

STANDARD NUMBER
INFORMATION DATE

1910.1200(g)(6); 1910.1200(g)(7)
890424

ABSTRACT

An Interpretive Letter regarding MSDS distribution requirements of chemical manufacturers and importers, distributors, and retail distributors. It is the responsibility of chemical manufacturers and importers to develop a material safety data sheet for each hazardous chemical they manufacture and import. Distributors are required to pass along material safety data sheets to downstream employers and other distributors. Retail distributors must provide, upon request, material safety data sheets to commercial customers and post a sign or otherwise inform them that material safety data sheets are available. The HCS does not apply to consumers and thus retail distributors are not required to pass on material safety data sheets to them.

INTERPRETATION

29 CFR 1910.1200(g)(6); 1910.1200(g)(7)

APR 24, 1989

This is in response to your letter of February 22, on behalf of your constituent, Mr. C of (Company) , regarding the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS) 29 CFR 1910.1200.

Question 1:

Is it a government requirement that these MSDS's on highly questionable hazardous materials be produced and distributed at considerable cost and inconvenience to the manufacturer, distributor and consumer?

Answer:

The standard requires chemical manufacturers and importers to review available scientific evidence concerning the hazards of the chemicals they produce or import and to report the information they find to their employees and to employers who distribute or use their products. It is the responsibility of the chemical manufacturer or importer to develop the material safety data sheet for each hazardous chemical. Any chemical that poses either a physical hazard (such as flammability) or a health hazard (such as causing damage to the skin or eyes) is covered by the rule.

Question 2:

If the answer is yes to 1, above, just what is my responsibility at the point of sale related to passing this "handling and hazard information" on to the consumer? - what about grocery store sales?

Answer:

The HCS provides workers exposed to hazardous chemicals with the right to know the identities and hazards of those chemicals, as well as appropriate means to protect themselves from adverse health effects. This is to be accomplished by having a hazard communication program in each covered facility, with labels on containers of such hazardous materials, more detailed information in the form of material safety data sheets, and employee training programs.

Distributors are required to pass along material safety data sheets to downstream employers. The material safety data sheet must be provided to commercial customers prior to or with the initial shipment of the hazardous chemical and with the first shipment after the sheet has been updated. Retail distributors must provide, upon request, material safety data sheets to commercial customers and post a sign or otherwise inform them a material safety data sheet is available. This provision of the HCS was included to prevent the necessity of providing a sheet to each customer of a retail establishment in order to ensure that employers obtained a material safety data sheet. Distributors are not required to provide material safety data sheets to retail distributors which have informed them

that they do not sell the product to commercial customers or open the sealed containers to use in their own workplaces. This provision may affect many of the products sold by your constituent.

The HCS does not apply to consumers. Therefore, your constituent is not required to pass on material safety data sheets to consumers.

RECORD ID

1959

STANDARD NUMBER
INFORMATION DATE

1910.1200(g)(10); 1910.1200(g)(7); 1910.1200(g)(6)
890720

ABSTRACT

An Interpretive Letter discussing the requirements for downstream transmission of material safety data sheets. The OSHA HCS requires the furnishing of hardcopy MSDSs from the manufacturer, importer, or distributor to the downstream employer who receives hazardous workplace chemicals. MSDSs may be kept in any form as long as the information is provided on each hazardous chemical and is readily accessible during each workshift to employees when they are in their work area(s). Access may be accomplished through dissemination of actual paper copies of the data sheets, via computer terminal, or any other means of providing readily accessible, readable copy onsite (g)(10) during each workshift to employees when they are in their work area(s).

INTERPRETATION

29 CFR 1910.1200(g)(10); 1910.1200(g)(7); 1910.1200(g)(6)

JUL 20, 1989

This is in response to your letters of March 27, February 8 and January 17 to Mr. S in the Office of Health Compliance Assistance of the Occupational Safety and Health Administration (OSHA), regarding requirements of the Hazard Communication Standard (HCS), 29 CFR 1910.1200, and downstream transmission of material safety data sheets (MSDSs). I apologize for the long delay in this response to you and hope that the following information will adequately address the concerns you raised.

You questioned whether the OSHA HCS requires the furnishing of hard-copy MSDSs to the downstream employer who receives hazardous workplace chemicals, "or if another means of furnishing MSDS information to that downstream employer is considered to be in compliance with the MSDS transmission requirements of the OSHA HCS." Attached to your most recent correspondence is a copy of a letter from our (City) Regional Office to Mr. G of (Company) in (City) (State). This letter stated that it was acceptable to utilize a microfiche program described in earlier correspondence from Mr. Stephen to meet the intent of the MSDS transmission requirement of the HCS. The HCS states that MSDSs "may be kept in any form" (see 29 CFR 1910.1200 (g)(10)), so long as the required information is provided for each hazardous chemical and is "readily accessible during each workshift to employees when they are in their work area(s)." Ready accessibility means that the employee may easily read and refer to the information. This may be accomplished through actual paper copies of the data sheets, or alternatively through computer terminal access or other means of providing readable copy on-site.

In your January 17 letter, you requested clarification on the application of the HCS requirement at 1910.1200 (g)(6) that "distributors and employers are provided an appropriate material safety data sheet with their initial shipment, and with the first shipment after a material safety data sheet is updated." You asked specifically if the MSDS transmission requirement would be met in the following situations:

- (1) The distributor provides MSDSs via microfiche which can be read by the receiver of that microfiche using available microfiche readers.
- (2) The distributor provides MSDSs via microfiche which can be read by the receiver of that microfiche and printed on hard copy by that receiver using a microfiche printer.
- (3) The distributor notifies the receiver of the product that the MSDS is in its computer network and the receiver may utilize its existing computer equipment to obtain a readout or a printout of the MSDS.
- (4) The distributor notifies the receiver of the product that the MSDS is available via utilization of FAX equipment which the receiver has currently in operation.

If the distributor and the receiver have mutually agreed that microfiche, computer or FAX will be used for MSDS transmission and both the distributor and the receiver already have the equipment at their worksites, these methods may be used. The distributor cannot require downstream recipients of his

MSDS to purchase or acquire machinery (computer, microfiche reader/printer, FAX or any other types of equipment) in order to be able to receive MSDS information, since it is the responsibility of the distributor to supply a MSDS with the initial shipment. However, if the two parties agree that such automated MSDS transmission will occur, both parties have the necessary equipment and the information on the MSDS will be readily available to the employees, then the use of this type of transmission would meet the requirement of the standard.

Since transmission of the MSDS must occur with the initial shipment and upon MSDS update, the distributor may not just inform the receiver that "an MSDS is available", he must actually send or transmit the MSDS to the receiver either with the shipment or prior to the shipment of the hazardous material(s), so that the information is readily available to employees at the receiver's work areas. As discussed above, this may occur electronically. Many larger plants have met the requirements of MSDS information transmission under the HCS by installing in-plant terminals and ensuring the training of employees to be able to easily access the information. The requirement for adequate employee training to access the electronically available information is key to compliance with this provision as you propose it, and must be met in order to ensure ready access to the hazard information contained on the MSDS.

RECORD ID

1960

STANDARD NUMBER
INFORMATION DATE

1910.1200(b)(2); (c); 1910.1200(g)(1); (g)(2)(i)(B); (g)(2)(i)(C)(1)
890217

ABSTRACT

An Interpretive Letter in response to a request for guidance regarding the need to list on material safety data sheets decomposition products during normal use or only in the event of a fire. Decomposition products released during normal operations, such as hot-wire cutting of plastic, must be reported on a material safety data sheet if they pose health hazards. Decomposition products of chemicals exposed to a fire, where such exposure is not a normal use of the product, are not covered by the standard and do not have to be listed on an MSDS. In addition, fire does meet the criteria of a foreseeable emergency.

INTERPRETATION

29 CFR 1910.1200(b)(2); (c); 1910.1200(g)(1); (g)(2)(i)(B); (g)(2)(i)(C)(1)

FEB 17, 1989

MEMORANDUM

SUBJECT: Hazard Communication Interpretation

This is in response to your request for guidance regarding the need to list decomposition products on the material safety data sheet where the decomposition products are present during normal use or only in the event of a fire.

The Hazard Communication Standard (HCS) applies to any chemical which is known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency.

Specifically, decomposition products released during normal operations, such as hot wire cutting of plastic, must be reported on the material safety data sheet if they pose a health hazards and:

1. They are present in concentrations of 1 percent or greater (by weight or volume), or
2. They are carcinogens and are present in concentrations greater than 0.1 percent (by weight or volume), or
3. They are present in concentrations of less than those given in Subparagraphs 1 and 2 above; but, nevertheless, present a health hazard to employees at that lower level of concentration, or
4. They are present in concentrations of less than those given in the Subparagraphs 1 and 2 above, but on release could exceed an OSHA PEL or ACGIH TLV.

Decomposition products of chemicals exposed to a fire, where exposure to fire is not a normal use of the product, are not covered by the standard and do not have to be listed on the material safety data sheet. In addition, the definition of "foreseeable emergency" does not include employee exposures to hazardous chemicals as a result of a fire.

RECORD ID

1962

STANDARD NUMBER
INFORMATION DATE

1910.1200(g)(8); (g)(9); (g)(10); 1926.59(e)(2)
890807

ABSTRACT

An Interpretive Letter discussing the applicability of the Hazard Communication Standard Material Safety Data Sheet requirements to the construction industry. The MSDSs must be on the jobsite and readily accessible to employees when they are in their work areas during each workshift. Actual paper copies, computer terminal access, or other means that permit ready access to the data sheets onsite are permitted. On multiemployer jobsites, employers, who produce, use or store hazardous chemicals, shall provide copies of MSDSs, as well as a written hazard communication program, to the employers of other employees exposed to the hazardous chemicals, or make them available at a central location at the jobsite for each hazardous chemical to which other employees and/or employers may be exposed to while working.

INTERPRETATION

29 CFR 1910.1200(g)(8); (g)(9); (g)(10); 1926.59(e)(2)

AUG 7, 1989

MEMORANDUM

SUBJECT: Hazard Communication Standard (HCS) Material Safety Data Sheet Requirements for the Construction Industry.

This is in response to your memorandum of May 26, requesting an interpretation of the HCS material safety data sheet (MSDS) requirements as it applies to the construction industry.

MSDSs are required to be maintained at the jobsite. The basis for this interpretation is the HCS definition of workplace which means "establishment, jobsite, or project, at one geographical location containing one or more work areas." The MSDSs must be on the jobsite and readily accessible to employees when they are in their work areas during the workshift. Alternatives, to actual paper copies of MSDSs, which provide readable copy on-site are permitted to meet this requirement. For example, computer terminals or FAX machines which allow employees to read and refer to the MSDS are permitted to be maintained at the jobsite, in lieu of paper copies, as long as no barriers to access exist.

There are no minimum time requirements for determining whether MSDSs maintained at the jobsite are readily accessible to employees while they are in their work areas. To make this determination compliance officers must ascertain whether a barrier to access exists. For example, must employees ask a supervisor or other management representative for the MSDS; are the sheets or alternative methods maintained at a location and under conditions where employees can refer to them during each workshift, when they are in their work areas; if a computer or FAX system is used, do employees know how to operate and obtain information from the system? Employees must have access to the MSDSs and be able to get the information when they need it. This may be accomplished in many ways and requires the compliance officer to exercise professional judgment in evaluating the accessibility of the MSDSs on-site.

On multi-employer jobsites, employers who produce, use or store hazardous chemicals, must provide copies of MSDSs to the employers of other employees exposed to the hazardous chemicals, or make them available at a central location at the jobsite. Again, actual paper copies of data sheets, computer terminal access, or other means of providing readable copy on-site are permitted.

RECORD ID 2911

STANDARD NUMBER 1910.1200(b)(6)(v); (viii)
INFORMATION DATE 890620

ABSTRACT An Interpretive Letter regarding the applicability of the Hazard Communication Standard to prescription drug products. The Hazard Communication Standard requires material safety data sheets on all drugs as defined in the Federal Food, Drug and Cosmetic Act, except for drugs in solid, final form, (e.g., tablets, pills, or capsules) for direct administration to a patient (b)(6)(viii). Package inserts and the Physician's Desk Reference cannot be accepted in lieu of MSDSs under the present rule.

INTERPRETATION 29 CFR 1910.1200(b)(6)(v); (viii)

JUN 20, 1989

This is in response to your letter of March 15 regarding the application of the Hazard Communication Standard (HCS) 29 CFR 1910.1200 to prescription drug products.

Material Safety Data Sheets (MSDSs) are required for all drugs as defined in the Federal Food, Drug and Cosmetic Act except for drugs in solid, final form for direct administration to the patient (i.e., tablets, pills, or capsules). The package inserts and the Physician's Desk References cannot be accepted in lieu of requirements of MSDSs under the present rule.

The MSDS provisions for drugs are being enforced in response to the order of the United States Court of Appeals for the (Number) Circuit. The provision and maintenance of material safety data sheets is an integral part of an employer's hazard communication program. Therefore, lack of MSDSs for covered drug products cannot be considered a de minimis violation, since they do have a direct or immediate relationship to safety and health.

SOURCE LETTER

MAR 15, 1989

RE: OSHA Hazard Communication Standard

On behalf of the XX Druggists' Association (XXDA), I hereby ask your assistance, and by copy supplement the position offered at the public hearing on the hazard communication standard as it would apply to prescription drug products.

Of primary concern to this association, its members, and their pharmacist customers is the massive proliferation of paperwork in the form of MSDSs, to communicate information about chemicals in prescription medicines to the professional pharmacists and medical personnel who administer those medicines. As noted often in our comments and testimony, existing alternative sources of information already communicate substantially the same information in a format that is familiar to these employees and is in daily use in the medical community. Examples of available alternative sources are professional package inserts supplied with each package by the manufacturer, and technical compilations of this information such as the Physicians Desk References.

In our various filings, we have described the massive economic and practical impact of creating, reproducing and distributing tens of thousands of MSDSs to meet the literal requirements of the hazard communication standard. We have submitted for the record the testimony of one representative member of XXDA, that for his business alone approximately 10,000 drug products appear to be subject to MSDS requirements. His company distributes to 1,040 customers, virtually all of whom would have to be sent a copy of each MSDS. This would involve the wholesaler receiving, storing, indexing, updating and maintaining 10,000 MSDSs, and distributing a total of 10.4 million copies. Each MSDS has multiple pages, and we conservatively estimate an average length of 4 pages. This single member estimated his

business alone would have to spend over \$16 million to send out MSDSs from his distribution center. NWDA has 310 members, of which this company is representative, and in the country at large we estimate there are 4,000 drug wholesalers.

The costs are real, and they are frightening in their dimension. We noted with favor the OSHA proposal on August 8, 1988, to consider alternative sources of information in satisfaction of MSDS requirements for FDA-regulated drug products. We supported the proposal in written comments and oral testimony.

The rule making is incomplete and yet, in the Federal Register of February 15, we read that the literal requirements of the original August 24, 1987, publication, including "coverage of drugs in the non-manufacturing sector," are in effect and subject to enforcement as of March 17, 1989. We understand that government litigation affecting this issue remains pending.

It seems both unfair and wholly unnecessary to place the members of our industry and their customers in jeopardy with a threat of enforcement, given the economic and practical considerations involved, while relief in the form of rule making remains incomplete.

Accordingly, we implore you to exercise your discretion to consider the use of professional package inserts and published sources of FDA-information such as the Physicians Desk References as constituting substantial satisfaction of MSDS requirements pending completion of the rule making of August 8, 1988. During this period, no citations or only de minimis citations should issue for not having MSDS forms for FDA-regulated drugs.

RECORD ID

3344

STANDARD NUMBER
INFORMATION DATE

1910.1200(g)(1); 1910.1200(g)(9); 1910.1200(g)(10)
900604

ABSTRACT

An Interpretive Letter regarding provision of computer-generated or FAX-transmitted MSDSs as part of a state's regional poison center 24-hour, right-to-know/hazard communication telephone hotline.

INTERPRETATION

29 CFR 1910.1200(g)(1); 1910.1200(g)(9); 1910.1200(g)(10)

JUN 4, 1990

Thank you for your letter of March 28 and for the opportunity I had to meet with you on that same date to discuss the (State) Regional Poison Center's 24 hour Right to Know/Hazard Communication (RTK/HC) telephone hotline. We apologize for the delay in this response.

The purpose of your letter was to clarify the intent of your program as regards the use, availability and support of on-site MSDS information. You also asked the Occupational Safety and Health Administration (OSHA) to provide you with a written response as to whether or not your program approach conflicts with existing OSHA rules and regulations regarding use and access to MSDS information for both stationary and mobile workforces. This letter is a response to that request.

Your letter states that your service will provide telephone MSDS information as well as computer generated or FAX transmission "information". You indicate that this information will supplement and update if necessary the onsite MSDS information. If your service will be used by employers to provide MSDS information to employees, you must be capable of providing all of the required MSDS information. Verbal information that is provided to mobile workforces by telephone must also meet this requirement. Computer generation or FAX transmission of information would be acceptable if a hardcopy can be produced in the workplace that contains all of the MSDS information required by the standard. At a fixed worksite this hardcopy MSDS information must be readily accessible during each workshift to employees when they are in their work areas.

In your letter, you differentiate between how MSDS will be maintained on site for stationary and mobile workforces, however, you do not specify the source of these MSDS. You state that "onsite copies of MSDS" will be "available and accessible within each workshift" for stationary workplaces while for mobile workforces, "hardcopy MSDS information" will be maintained at the primary or central work location. We would like to clarify the requirements for onsite MSDS sheets. Paragraph (g)(9) of the Hazard Communication Standard (HCS) requires that the material safety data sheet, not just "MSDS information" be kept at the work location. This requirement includes mobile workforces where the standard permits the MSDS to be kept at the primary workplace as long as all of the required information contained on the MSDS can be immediately obtained by employees in an emergency.

The standard allows the MSDS to, as you indicate per paragraph (g)(10), "be kept in any form, including operating procedures," however, this provision applies to alternatives to MSDS located within a plant site (see Federal Register, vol. 48, No. 228, pg. 53337). This alternative approach was intended to allow employers to address the hazards of a process, rather than individual chemicals, again, within or while on a plant site.

Substitutes for MSDS must provide all of the required information from the original MSDS in hardcopy format.

The MSDS must be specific to each chemical manufacturer's product and, each MSDS must contain the specific chemical identity as used on the required label on the chemical. Further, each chemical manufacturer or importer must list on the chemical's MSDS their name, address and telephone number or the same information for a responsible party" who will provide additional information on the hazardous chemical and appropriate emergency procedures (see (g)(2)(xii)). Thus, the MSDS information must

provide the specific telephone number or other emergency contact information of the chemical manufacturer for the specific chemical that they are working with, as required at (g)(2)(xii) of the standard.

As you are aware, it is the responsibility of the chemical manufacturer or importer to evaluate and compile all the hazard information known about the chemicals he produces. It is also his responsibility to transmit and update that information on MSDS sent to downstream users. Any party who changes a chemical's MSDS or label then becomes the responsible party for the change. Responsible parties must be able to supply all the information required by the MSDS, including appropriate emergency information as discussed above.

It has been estimated that there are about 650,000 hazardous chemical products utilized in American workplaces, and hundreds more are introduced into the workplace annually. Chemical manufacturers and importers are the ones who perform the hazard evaluations on the chemicals; they generate or keep the data; and they are the ones who know about their products. Therefore, they are in the best position to provide and keep up-to-date the hazard information data required under the HCS. MSDS for "identical" chemicals produced by different chemical manufacturers may contain different information, depending upon when the MSDS was most recently updated with new information, when it was sent to and received by the using or downstream or reported contaminants which may affect the hazardous properties of the specific chemical.

Therefore, if the supplemental information provided by the RTK/HC hotline is the information from or reported on each chemical manufacturer's or importer's specific MSDS, then the hotline service would serve to increase the effectiveness of the employee's overall hazard communication program. But, again, the information provided must be from the chemical's own MSDS, not a compilation of data from secondary sources, which may not be representative of the manufacturer's hazard determination to that specific chemical.

SOURCE LETTERS

MAR 28, 1990

During the last six years the (State) Regional Poison Center has implemented Right-to-Know/Hazard communication programs for numerous governmental and corporate clients. The focal point of our program has been a 24 hour Right-To-Know/Hazard Communication (RTK/HC) telephone hotline answered by knowledgeable health professionals regarding all aspects of safety information from general MSDS clarification to emergency response or exposure advice and triage. During this last year we have been attempting to expand our program to the telecommunications industry for their stationary and mobile workforce. Discussions are currently underway with the Bell (Region), Contel and U.S. Sprint organizations.

In June of 1989 we met with members of the Federal Office of OSHA in Washington D.C. to present information on our program and its application to the Hazard Communication Standard. Subsequent to that meeting we received written correspondence from Ms. P suggesting that aspects of our program were not acceptable, specifically in regards to the role of the hotline and MSDS availability in the workplace. It is apparent that the "perceived" intent of our program was to replace the current use of on-site hardcopy MSDS information with the hotline. The purpose of this correspondence is to restate and clarify the intent of our program as regards the use, availability and support of on-site MSDS safety information.

We have worked hard to enhance our capabilities to provide and support, on-site MSDS hardcopy information for our clients. The principle components of our service for both the stationary and mobile workforce are as follows:

- 1) **MOBILE WORKFORCE** - Workers travelling between multiple worksites are provided with a tollfree 1-800 telephone number to the Poison Center where a central bank of MSDS information is maintained. Verbal MSDS information as well as FAX transmission of hard copy MSDS information is available at all times pursuant to the Hazard Communication Standard (per 1910.1200 (g)(9)). Additionally, hardcopy MSDS information is maintained at the primary or central work location as required in the Hazard Communication Standard (per 1910.1200 (g)(10)). As stated in the standard it is our understanding that "Material safety data sheets may be kept in any form, including operating procedures", as long as the necessary information is available to the employee.

- 2) **STATIONARY WORKFORCE** - Workers will have access to on-site copies of MSDS's available and accessible within each workshift (per 1910.1200 (g)(8)). A 24hr RTK/HC hotline to the poison center, where a masterfile of MSDS information is maintained, will also be available to the employee. This hotline will serve to supplement and update, if necessary, the on-site information and offer an immediate response for verbal clarification of MSDS or other safety data as well as FAX or computer generated transmission of pertinent information as requested by the employee. This includes the communication, transmission or mailing of safety data to the employees home or outside the workplace at the employees' request.

We believe these 2 approaches do not conflict with existing OSHA rules and regulations regarding use and access to MSDS information for both the stationary and mobile workforce. We would appreciate a brief written response to the items covered in this correspondence as to their acceptability by OSHA so that we may proceed with our discussions with the Bell (Region), Contel and U.S. Sprint organizations as well as other interested clients.

JUL 7, 1990

This is in response to your letter addressed to Mr. Z requesting a field directive which would allow a 24-hour toll-free telephone service to fulfill the material safety data sheet (MSDS) requirements of the Hazard Communication Standard (HCS), 29 CFR 1910.1200.

The 24-hour telephone system does not satisfy the requirements of the rule for employees to have ready access to MSDSs when they are in their work areas during the workshift. Having MSDSs readily accessible means that the employee may read and refer to the information. This may be accomplished through actual paper copies of the MSDSs, or alternatively through computer terminal access or other means of providing readable copy on-site. A field directive allowing the use of this system in lieu of MSDSs cannot be issued, as this would not meet the intent of the present rule.

Telephone access, where someone is available to interpret the MSDS information, could be used under the present rule to supplement the data sheets on-site. This could certainly increase the effectiveness of an employer's overall hazard communication program. Telephone access is also permitted under the mobile worksite provisions of the rule, where employees must travel between workplaces during a workshift. In this situation, employees have access to the MSDSs prior to leaving the primary workplace, and when they return, the telephone system is simply an emergency arrangement.

I appreciate you and representatives of your organization meeting with members of my staff to discuss the merits and disadvantages of the system you propose. I hope the information provided above is helpful to you in implementing your system within the purview of the present standard. As you are aware, rulemaking on the HCS is ongoing. A notice was published on August 8, 1988, in the Federal Register proposing modifications to the rule. The Agency is familiar with your submission of testimony to the record given during the public hearings held in December of last year. OSHA will continue to consider your suggestion as the Agency evaluates all the data and evidence submitted during the recent rulemaking.

RECORD ID

3347

STANDARD NUMBER
INFORMATION DATE

1910.1200(b)(1); 1910.1200(g)(6); 1910.1200(g)(7)
900516

ABSTRACT

An Interpretive Letter regarding the application of the HCS MSDS requirements to distributors selling hazardous chemicals to consumers and employers. Under the current rule, distributors of hazardous chemicals must provide material safety data sheets and updated information, per paragraph (g)(7) of the HCS, to other distributors and employers. OSHA cannot require distributors to provide an MSDS in a nonemployer-employee situation. OSHA believes it is reasonable to require a user of a hazardous chemical to request an MSDS, rather than to have the distributor automatically provide one to all purchasers, some of whom may be noncommercial account users. Inevitably, it is an employer's responsibility to make sure that MSDSs are available at its workplaces wherever hazardous chemicals are stored, used or distributed.

INTERPRETATION

29 CFR 1910.1200(b)(1); 1910.1200(g)(6); 1910.1200(g)(7)

MAY 16, 1990

Thank you for your letter of February 12, addressed to Ms. W of the (City) Regional Office of the Occupational Safety and Health Administration (OSHA). Your letter, which raised several concerns regarding OSHA's Hazard Communication Standard (HCS), 29 CFR 1910.1200, was forwarded to us for response. We will respond to your questions in the order in which they were raised:

Question 1:

For what purpose does the following OSHA declaration serve: "If retail distributors do not sell to employers they do not have to handle the MSDSs"?

Answer:

Under the current rule, distributors of hazardous chemicals must provide material safety data sheets (MSDS) and updated information, per paragraph (g)(7) of the HCS, to other distributors and employers. OSHA has no authority, under the Occupational Safety and Health Act of 1970 (OSH Act), to prescribe or enforce regulations that affect situations outside the Agency's jurisdiction, e.g., OSHA cannot require distributors to provide a MSDS in a non employer-employee situation.

Question 2:

Aside from the fact that you have no jurisdiction on consumers, there appears to be a "stronger than normal" emphasis on eliminating them from the ruling. Why?

Answer:

The reason, again, that the HCS does not apply to consumers is that OSHA has no statutory authority to regulate safety and health situations outside the workplace.

Question 3:

Since you have no jurisdiction over normal consumer usage levels, please explain how one crosses the line from one to the other and how do retail distributors know that it has been crossed so that the distributors may then supply the employer with an MSDS? More facts: In many places, OSHA has stated that distributors of MSDSs only need to hand out one copy with the first shipment and another copy when the MSDS is changed. The hardware retail distributor has about 3,000 items that are probably covered by MSDSs. There may be just a few or there may be thousands of employer type customers. OSHA has stated also that the purpose of "only" distributing MSDSs as mentioned in the first sentence of this paragraph was to conform to an apparently easy method of distribution. Short of an actual computer and the monitoring of "every" sale of all products for determining the MSDS status

of both the product (Is this an MSDS item and does it have an updated MSDS?) and the employer (Has this employer ever purchased this item, and if so, has he received a current MSDS?), there is no practical method of complying with the mandate for retail distributors to carry and monitor MSDSs and their ultimate distribution.

Answer:

Retail distributors who sell hazardous chemicals to employers must provide a MSDS upon request, and must post a sign or otherwise inform employers that an MSDS is available. In other words, an employer purchasing chemicals for his workers to use at his worksite is responsible for asking for the MSDS from the distributor. This must only be done, of course, if those workers will be using the "consumer product" in a manner that results in a duration and frequency of use and therefore exposure greater than would result from normal consumer usage. According to the discussion of this topic in the preamble to the HCS final rule published August 24, 1987, page 31866 of the Federal Register (copy enclosed), "The retail distributors likely affected are those selling building supplies, hardware, etc. Retail distributors will have to assess their product lines, and whether or not they have commercial accounts, to determine whether they must comply with this provision."

On August 8, 1988, the Agency published a Proposed Rule on Hazard Communication in the Federal Register. In this publication, the Agency proposed certain modifications to the final HCS rule and provided further explanation on various requirements of the standard. As stated therein, OSHA believes it is reasonable to require the user of a hazardous chemical to request the MSDS rather than to have the distributor automatically provide one to all purchasers, some of whom may be non-commercial account users. A copy of the 1988 proposal is included for your information. We encourage you to review the discussion of this point on page 29838 of the enclosed Federal Register notice. Further on in your letter, (page 3) you also raised concerns about OSHA's definition of "commercial account," as defined in OSHA's Hazard Communication Instruction, CPL 2-2.38B. Again, for your further edification, you may want to review the Agency's discussion of this issue as provided on page 29841 of the enclosed Proposed Rule.

Question 4:

Has OSHA devised any guidance procedures for the actual distribution of MSDSs by retail distributors on a sale by sale basis, and the monitoring of which MSDSs has been given to which employers?

We concur that employers have the responsibility to know what material they are working with and its MSDS hazard potential to employees. We also concur that employers should have the responsibility of maintaining MSDSs in the workplace.

Answer:

As indicated in our response to your third question (above), it is the employer's responsibility to request a MSDS for a hazardous chemical if his employees will be working with and therefore will be exposed to that chemical (see also our response to your question 7, below).

As you know, distributors receive MSDS and label information from the chemical supplier(s) at the time of the first shipment of the chemical. The MSDS need only be sent again downstream if the MSDS is updated or changed to contain new or significant information about the chemical's hazards. Distributors also need only send the MSDS to the downstream user at the time of the initial shipment or at the time of the next shipment after the MSDS has been updated. These provisions are detailed in the HCS at section (g)(7). OSHA monitors MSDS availability and quality during inspections of the using employer's worksite; employers may rely on the data on the MSDS as sent to them from the chemical manufacturer, importer or distributor. If no MSDS is present then that employer is subject to citation. However, if the using employer, did not receive an MSDS from the chemical manufacturer, importer or distributor and he has demonstrated a good faith effort to obtain the MSDS from them (e.g., a letter or documentation of a telephone call requesting the sheet), then the using employer may not be cited for violation of section (g) of the HCS. If the distributor has failed to transmit the MSDS to the employer, the distributor would be subject to citation for violation of paragraph (g)(7), unless he did not receive the MSDS from the chemical manufacturer, importer or distributor. Certainly, requesting OSHA assistance to obtain an MSDS from the manufacturer, importer or distributor is also documentation of a good faith effort to obtain the required information.

OSHA realizes that this requirement of the HCS to supply MSDS and labels to customers that you distribute hazardous chemicals to may have imposed additional paperwork burdens on you. However, as stated in the Standard, the unimpeded downstream flow of hazard information is key to achieving the goals of the HCS. Distributors' transmittal of the MSDS and appropriate labels provide downstream employers with the information they need to inform and train their employees properly and to design and put in place employee protection programs. It also provides necessary hazard information to employees so they can participate in, and support, the protective measures in place at their workplaces.

Question 5:

Once an employer has a need for an MSDS, he should have enough time, or make the time, to order an MSDS from the manufacturer (or centralized MSDS source supplier) OSHA could economically devise and monitor a code number scheme that could include the exact product hazard and the latest revision of the MSDS for the item. This code number could be carried on the product along with the name and address of who is supplying the MSDS. Why has this option of distributing MSDSs been totally overlooked?

Question 6:

If the answer to #5 relates to "not within OSHA's jurisdiction," then whose jurisdiction can OSHA work with to devise a coded control number plan?

Answer:

As you are aware, it is the responsibility of the chemical manufacturer or importer to evaluate and compile all the hazard information known about the chemicals he produces. It is also his responsibility to transmit and update that information on MSDS sent to downstream users. It has been estimated that there are about 650,000 hazardous chemical products utilized in American workplaces, and hundreds more are introduced into the workplace annually. Chemical manufacturers and importers are the ones who perform the hazard evaluations on the chemicals, they generate or keep the data, they are the ones who know about their products and are therefore in the best position to provide and keep up-to-date the hazard information data required under the HCS. Many different options to this requirement were considered during the final rulemaking on the standard. The method required in the current rule was found to be the most feasible way of accomplishing the required information transmittal. Further, OSHA does not have the capability to perform individual chemical hazard evaluations and therefore the "code number" option on the MSDS could not feasibly be administered by the Agency. Again, the accuracy, timeliness, and distribution of information is the chemical manufacturer's responsibility. Since it has been estimated that 90 percent of all chemicals manufactured by or imported into this country are unique to a single chemical manufacturer (the party who, as stated above, has in its possession the required information about the chemical), the Agency's requirement that the manufacturer/importer be the one responsible for the completeness and distribution of accurate and up-to-date information is understandable.

Question 7:

This question is based on all of the facts listed above. Since OSHA considers hardware stores minimal exposure type businesses, why does OSHA give maximum responsibility inconsistent with the minimal exposure category?

Answer:

Again, as a distributor of hazardous chemicals, the requirements to transmit hazard information in the form of MSDS and labels, to assist in the unimpeded flow of hazard information to downstream users is key to achieving the goals of the HCS, and is a positive requirement of the standard at 29 CFR 1910.1200 (g)(7).

Question 8:

Referring to the above examples, how can a publication such as CPL 2-2.38B be called a guideline to "... ensure uniform enforcement ..." of the standard when the copier example contained within it is not and when it uses non-specific text?

Answer:

The examples cited in your letter are from discussions provided in CPL 2-2.38B on the standard's intent behind the "commercial account" and "office products/copying machine" examples of applications of the HCS. As referenced above in this letter, the Proposed Rule Federal Register publication provides a discussion on the Agency's intent behind and applicability of the commercial account provisions. With regard to the question you raised, i.e., how many times must an employee change the toner in a copying machine before that exposure is covered under the HCS, as you know, OSHA does not specify the point at which an employee would be covered by the standard. The HCS incorporates both specification and performance-oriented requirements which are result-oriented, thereby providing goals for achievement and allowing employers the flexibility to develop a program suitable for their particular facility. CPL 2-2.38B provides OSHA Compliance Officers guidance and interpretative language which will allow the Officer to consider whether the intent of the HCS provisions have been met.

One difference between the HCS and other OSHA substance or hazard-specific safety and/or health standards is that much of the HCS is performance-oriented. This means that employers have the responsibility and the flexibility to adapt the rule to the specific situations in their workplaces, rather than having to follow specific rigid requirements. It also means that employers have to exercise more judgment in order to implement an appropriate and effective program.

SOURCE LETTER

FEB 12, 1990

Representing the hardware retailers in (State), the (State) Hardware Association has several areas of concern regarding MSDS's.

We have received from your office copies of your responses to The Honorable E (3-3-89), The Honorable R (4-24-89, Attorney G (12-5-88), and Ms. K (4-11-88). We have also received much literature on the subject of MSDS's.

First of all, we fully appreciate the intent and use of MSDS's. It is the downline handling and distribution that concerns us. These concerns will be posed as facts with questions for you to answer.

In this letter, the term "employer" means someone engaged in using his employees to work with hazardous material far more often than consistent with household application intended usage. The term "consumer" means someone buying a product for normal household duty usage.

Facts: It has been stated that MSDS's do not have to be given to consumers. It has been stated also that if retail distributors do not sell to employers they do not have to handle the MSDS's. Items available for sale to consumers are items also available for sale to employers. What crystal ball has been created that allows this retail distributor to know whom his future customers will be? Since it is unclear as to whom the future customers are, it appears obvious that MSDS's must be available for every hazardous item sold.

Based on the above facts, please answer for us the following questions:

Question #1:

For what purpose does the following OSHA declaration serve: "If retail distributors do not sell to employers they do not have to handle the MSDS's"?

Question #2:

Aside from the fact that you have no jurisdiction on consumers, there appears to be a "stronger than normal" emphasis on eliminating them from the ruling. Why?

Question #3:

Since you have no jurisdiction over normal consumer usage versus your jurisdiction for usage by an employee above and beyond normal consumer usage levels, please explain how one crosses the line from one to the other... and how do retail distributors know that it has been crossed so that the distributors may then supply the employer with an MSDS?

More facts: In many places, OSHA has stated that distributors of MSDS's only need to hand out one copy with the first shipment and another copy when the MSDS is changed. The hardware retail distributor has about 3,000 items that are probably covered by MSDS's. There may be just a few or there may be thousands of employer type customers. OSHA has stated also that the purpose of "only" distributing MSDS's as mentioned in the first sentence of this paragraph was to conform to an apparently easy method of distribution. Short of an actual computer and the monitoring of "every" sale of all products for determining the MSDS status of both the product (Is this an MSDS item and does it have an updated MSDS?) and the employer (Has this employer ever purchased this item, and if so, has he received a current MSDS?), there is no practical method of complying with the mandate for retail distributors to carry and monitor MSDS's and their ultimate distribution.

Question #4:

Has OSHA devised any guidance procedures for the actual distribution of MSDS's by retail distributors on a sale by sale basis, and the monitoring of which MSDS's has been given to which employers?

We concur that employers have the responsibility to know what material they are working with and its MSDS hazard potential to employees. We also concur that employers should have the responsibility of maintaining MSDS's in the workplace.

Question #5:

Once an employer has a need for an MSDS, he should have enough time, or make the time, to order an MSDS from the manufacturer (or centralized MSDS source supplier). OSHA could economically devise and monitor a code number scheme that could include the exact product hazard and the latest revision of the MSDS for the item. This code number could be carried on the product along with the name and address of who is supplying the MSDS. Who has this option of distributing MSDS's been totally overlooked?

Question #6:

If the answer to #5 relates to "not within OSHA's jurisdiction", then whose jurisdiction can OSHA work with to devise a coded control number plan?

OSHA has the hardware retailer on a very low priority for inspections for MSDS violations which means OSHA will probably never visit a hardware store unless a complaint has been filed.

Question #7:

This question is based on all of the facts listed above. Since OSHA considers hardware stores minimal exposure type businesses, why does OSHA give maximum responsibility inconsistent with the minimal exposure category?

The Washington DC office gave us a (City) phone number and said to ask for OSHA publication CPL 2-2.38B. This publication "establishes policies and provides clarifications to ensure uniform enforcement of Hazard Communication Standard (HCS)."

In several discussions with at least eight OSHA agents, there is a real difference of opinion as to how HCS is enforced. All of the agents agreed there were very specific guidelines to the standards. In most cases, each agent used CPL 2-2.38B and was able to interpret the publication to suit their needs.

For example, CPL 2-2.38B, Paragraph K.7.b.(1) states "A commercial account is one where a retail distributor has made an arrangement to sell hazardous chemicals to an employer, generally in large

quantities over time and at costs that are below the regular retail price." The word "generally" is defined by dictionaries as "being without specifics".

"Large" is defined as "dealing in great numbers or abundance" but does not have a specific number or quantity assigned to it. "Over time" is a phrase referring to a few hours, many years, or somewhere in between. "At costs that are below the regular retail price" can be interpreted to mean, if sold at full retail, MSDS's are not required. The statement above has no defined value to be used as a specific guideline.

Referring to OSHA CPL 2-2.38B, Appendix A, Section (c), the sixth paragraph titled "Employee" which states: "For example, a worker who occasionally changes the toner in a copying machine would not be covered by the standard. However, an employee who operates a copying machine on a full-time basis would be covered by the provisions of the HCS for any hazardous chemicals used." Is the employee still exempt from the standard if he changes the toner two times? What about three times? Or four times? At what specific point did this employee become sufficiently involved in the process to become covered by the standard? If an employee spends seven and one-half hours of his eight hours as a copier specialist, is he still covered? How about six hours? At what point is he no longer covered?

Question #8:

Referring to the above examples, how can a publication such as CPL 2-2. 38B be called a guideline to "ensure uniform enforcement..." of the standard when the copier example contained within it is not and when it uses non-specific text?

RECORD ID

3420

STANDARD NUMBER

1910.1200(g)(1); 1910.1200(b)(6)(viii); 1910.1200(g)(2)(xii);
1910.1200(g)(10)

INFORMATION DATE

900706

ABSTRACT

An Interpretive Letter as to whether or not "an equivalent electronic information system" can be used in lieu of MSDSs to satisfy the HCS. The standard requires that an MSDS itself, and not just "MSDS information," be kept at a workplace, (g)(8). Computers or telefaxes or any other means may be used to transmit an MSDS, as long as each relevant data sheet is available to workers in their work areas, during each workshift, (g)(10). Employees must encounter no barriers to access an MSDS. MSDSs must be specific to each chemical used on site and provide telephone numbers and other emergency contact information about the chemical manufacturers. For these reasons, the use of "the same information covered by an MSDS" cannot be used "in lieu of an MSDS."

INTERPRETATION

29 CFR 1910.1200(g)(1); 1910.1200(b)(6)(viii); 1910.1200(g)(2)(xii);
1910.1200(g)(10)

JUL 6, 1990

Thank you for your letter of May 23, addressed to my attention, and also your letter of May 30, addressed to Ms. M of my staff, requesting an interpretation on whether "an equivalent electronic information system" could be used in lieu of Material Safety Data Sheets (MSDSs) to satisfy the requirements of the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS), 29 CFR 1910.1200. My office also is in receipt of copies of other letters you have sent to OSHA's Regional Offices. This letter serves as our consolidated response to all these similar requests.

First of all, let me clarify that while each of OSHA's Regional Administrators does have authority over the compliance activities in his or her region, each also ensures that OSHA's standards are uniformly enforced throughout the country. Further, OSHA's National Office develops and disseminates to all OSHA regions inspection guidelines for OSHA enforcement personnel to utilize when checking for compliance with the HCS. A copy of the current OSHA Instruction, CPL 2-2.38B, "Inspection procedures for the Hazard Communication Standard," is enclosed for your reference. All inspections are conducted in accordance with the policies and procedures set forth in CPL 2-2.38B.

With regard to the specific questions raised in your letters regarding the MSDS requirements of the HCS, the standard requires that the MSDS itself, not just "MSDS information" be kept at the workplace. The Agency has interpreted the MSDS availability requirement to allow the use of computers or telefax or any other means, as long as a readable copy of the MSDS is available to the workers while they are in their work areas, during each workshift. The key to compliance with this provision is that employees have no barriers to access the information. This can be accomplished by the employer maintaining a hard copy of the MSDS itself on-site, or, again, by using a computer or telefax system capable of producing the same readable copy on-site.

Under the HCS, MSDSs are the basis of the employer's hazard communication program. Employers must have at their workplace the MSDS for each hazardous chemical they use, and they may rely on the validity of the MSDS information received from the supplier. As you are aware, it is the responsibility of the chemical manufacturer or importer to evaluate and compile all the hazard information known about the chemicals he produces. It is also his responsibility to transmit and update that information on MSDSs sent to downstream users. Any party who changes a chemical's MSDS or label then becomes the responsible party for the change.

The MSDS used in an employer's hazard communication program must be specific to each chemical used on-site, since each MSDS contains the specific chemical identity as used on and therefore cross-referenced to the required label on the chemical's container. Further, the HCS requires that each chemical manufacturer or importer list on the chemical's MSDS his name, address and telephone number or the same information for a "responsible party" who will provide additional information on the hazardous chemical and appropriate emergency procedures (see 1910.1200(g)(2)(xii)). MSDSs therefore provide specific telephone number or other emergency contact information for the chemical manufacturer, again,

for the specific chemical that is being used on-site, as required at (g)(2)(xii) of the standard. For these reasons, the use of "the same information covered by an MSDS" cannot be used "in lieu of an MSDS" as proposed in your letter.

You also raised a question regarding enforcement of the HCS with respect to "non-manufacturing exposure to drugs in hospitals." MSDS are required for all drugs defined under the Federal Food, Drug and Cosmetic Act except for drugs in solid, final form for direct administration to the patient (i.e., tablets, pills, capsules). The Supreme Court upheld this requirement in its decision dated February 21, 1990 (see *Dole, Secretary of for, et. al. v. United Steel workers of America et. al.* No. 88-1434). The requirement to have on-site MSDSs for pharmaceuticals workers may be exposed to therefore remains in effect and is fully enforceable. In its Notice of Proposed Rulemaking on the HCS (Federal Register, vol. 53, No. 152, August 8, 1988), OSHA proposed for public comment the provision that package inserts or information from the Physician's Desk Reference (PDR) be considered a MSDS for purposes of compliance with the HCS in the non-manufacturing sector. This is only a proposed provision, however, awaiting final rulemaking by the Agency. At the present time, the package insert or PDR reference is not acceptable in lieu of the MSDS.

SOURCE LETTERS

MAY 31, 1990

MEMORANDUM

SUBJECT: Hazard Communication Interpretation Request, (Company)

This is in response to your memorandum of May 21, 1990, wherein you requested that inquiries from (Company), be forwarded to your office for a reply. Attached is the letter we received from (Company), Inc. We have advised them that a response from the National Office is forthcoming.

MAY 30, 1990

Mr. R of the (City) office asked me to send you a copy of the original cover letter we sent to him for a ruling on whether or not an equivalent electronic information system could be used in lieu of Material Safety Data Sheets to satisfy the Hazard Communication Standard. Also enclosed is a copy of the reply from the Atlanta region referring this request to your office.

MAY 23, 1990

We would like a clarification from OSHA as to whether or not equivalent information in some other form, such as a comprehensive computerized information system, would satisfy the information requirements of CFR 1910.1200, the OSHA Hazard Communication Standard, in lieu of Material Safety Data Sheets.

We have received requests from several of our users for clarification of this point, especially with respect to enforcement of the Hazard Communication Standard for non-manufacturing exposure to drugs in hospitals.

Enclosed for your information is a packet containing product literature on the various databases in the TOMES Plus Information System and document outlines for all the databases. I understand that it is OSHA's policy not to endorse specific products, and we are not asking for your endorsement.

Rather, we would like your ruling on whether the same information covered by an MSDS could be used in lieu of an MSDS to satisfy the information requirement in individual regions.

We have already written the eight Regional Offices for clarification on this question. As I understand it, each Regional Office has the authority to determine how the OSHA standards are enforced in its region, and there is no required format for MSDS's under the Federal Standard. Enclosed are copies of the two replies we have received so far. The (City A) office referred our request to you, and the (City P) office said that such a system would be acceptable so long as the information was accessible to employees in the workplace.

MAY 15, 1990

This is in reply to your request for clarification concerning whether maintaining information on a computerized system is acceptable in lieu of a material safety data sheet. Such a system would be acceptable provided that access to the information is not impeded by the use of a computerized information system, i.e. all employees have ready access to terminals and are familiar with access procedures. All other access provisions of the OSHA hazard communication standard as applied to MSDS access would also be necessary, such as terminals located in work areas which are accessible during all times that the employees are working.

MAY 3, 1990

We would like a clarification from the OSHA Regional Office as to whether or not equivalent information in some other form, such as a comprehensive computerized information system, would satisfy the information requirements of CFR 1910.1200, the OSHA Hazard Communication Standard, in lieu of Material Safety Data Sheets in your region. As I understand it, each Regional Office has the authority to determine how the OSHA standards are enforced in its region, and there is no required format for MSDS's under the Federal Standard.

We have received requests from several of our users for clarification of this point, especially with respect to enforcement of the Hazard Communication Standard for non-manufacturing exposure to drugs in hospitals. We are therefore contacting every OSHA Regional Office to get a ruling on this question.

Enclosed for your information is a packet containing product literature on the various databases in the TOMES Plus Information System and document outlines for all the databases. I understand that it is OSHA's policy not to endorse specific products, and we are not asking for your endorsement. Rather, we would like your ruling on whether the same information covered by an MSDS could be used in lieu of an MSDS to satisfy the information requirement in your region.

RECORD ID 2411

STANDARD NUMBER 1910.1200(g)(2)(iii); 1910.1200(g)(2)(iv); 1910.1200(g)(3);
1910.1200(g)(2)(xii)
INFORMATION DATE 861025

ABSTRACT

An Interpretive Letter as to the availability requirements of emergency information under the Hazard Communication Standard. Chemical manufacturers should consider the following criteria in deciding the hours of operation of their emergency telephone lines:

1. The completeness of material safety data sheets on products,
2. the toxicity/physical hazards of chemicals,
3. the frequency with which the chemicals will be used,
4. the immediacy of information needs based on all of the above, and
5. the availability of information through other sources.

The OSHA standard is written as a performance standard. OSHA offers guidelines, but does not specify hours of operation for emergency information lines.

INTERPRETATION 29 CFR 1910.1200(g)(2)(iii); 1910.1200(g)(2)(iv); 1910.1200(g)(3);
1910.1200(g)(2)(xii)

(No data provided.)

This is in response to your letter of June 9, 1986 concerning the availability of emergency information under the Hazard Communication Standard (HCS), reference 29 CFR 1910.1200.

Question:

Do emergency information lines have to be operated 24 hours per day, or for some other specified time period?

Answer:

The HCS is primarily written in performance language. Paragraph (g)(2)(xii) of 29 CFR 1910.1200 does not specify hours of operation for emergency information lines.

The Occupational Safety and Health Administration's policy is to resist providing specifications that would erode the intended flexibility of performance standards. The Agency therefore, only provides guidelines to assist employers in fulfilling their responsibilities under the standard.

Chemical manufacturers should consider the following criteria in deciding the hour of operation of their emergency telephone line:

- 1) The completeness of the material safety data sheet for products
- 2) The toxicity/physical hazards of chemicals
- 3) The frequency the chemicals will be used and the immediacy of information needs based on all the above
- 4) Availability of information through other sources

If for example a manufacturer feels that their material safety data sheets are comprehensive and the products present little risk then the emergency number need only be open during normal work hours.

In summary, hours of emergency line operation must be decided individually by each chemical manufacturer.

SOURCE LETTER

JUN 9, 1986

Ref: Hazard Communication Standard (g) Material Safety Data Sheets

- (xii) The name, address and telephone number of the chemical manufacturer, importer, employer or other responsible party preparing or distributing the material safety data sheet, who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

(No date provided.)

We would appreciate clarification relative to the time element for answering emergency procedures by telephone for manufacturers, importers, employer or other responsible party preparing or distributing the MSDS.

We are of the opinion that due to the various time zones in the U.S. and the fact that many hazardous chemicals are used by employees on night-shifts, that telephone calls should be answered on a 24-hour-a-day basis to furnish appropriate emergency information caused by a hazardous chemical exposure. Many manufacturers are assuming compliance by answering these phones during the usual working day (8 a.m. - 5 p.m.). We would appreciate a written response from OSHA regarding this matter.

RECORD ID 1926

STANDARD NUMBER 1910.1200(g)(7); 1910.1200(g)(6)
INFORMATION DATE 881205

ABSTRACT An Interpretive Letter regarding the MSDS distribution responsibilities of chemical manufacturers and importers, distributors and retail distributors. The responsibilities of chemical manufacturers and importers are to ensure that distributors are provided with an appropriate MSDS with each initial shipment, and with the first shipment after a data sheet is updated. The standard does not compel manufacturers to supply MSDSs with each product shipped or to reimburse distributors for duplication costs. Distributors are to provide material safety data sheets to other distributors and employers in the same manner as chemical manufacturers and importers. Retail distributors are to provide, upon request, material safety data sheets to commercial customers and shall post a sign or otherwise inform them that material safety data sheets are available.

INTERPRETATION 29 CFR 1910.1200(g)(7); 1910.1200(g)(6)

DEC 5, 1988

This is in response to your letter of September 22, regarding the duties of distributors of products covered by the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS) 29 CFR 1910.1200.

In your letter you specifically asked the Agency to respond to two "proposed aspects of compliance by bearing distributors with the Hazard Communication Standard." Our responses are numbered in the sequence in which the questions were posed.

Proposal 1:

That chemical manufacturers and importers are required to either provide distributors with one material safety data sheet and label per each product shipped or that they must reimburse distributors for the costs of necessary duplication of material safety data sheets and labels.

Answer:

According to 29 CFR 1910.1200(g)(6) the responsibilities of chemical manufacturers or importers are to ensure that distributors are provided with an appropriate material safety data sheet with their initial shipment, and with the first shipment after a data sheet is updated. The standard does not compel manufacturers to supply material safety data sheets with each product shipped or to reimburse distributors of the products for duplication costs. The standard does require chemical manufacturers to ensure that each container of hazardous chemicals is labeled.

Proposal 2:

Alternatively, a finding that bearing distributors meet their obligations under HCS by sending a one-time letter (with appropriate updates) to each of their customers containing the information required by the HCS (rather than one material safety data sheet per product shipment).

Answer:

Distributors are required to provide material safety data sheets in the same manner that chemical manufacturers and importers are. The material safety data sheet must be provided to commercial customers with the initial shipment and with the first shipment after a data sheet has been updated. Retail distributors must provide, upon request, material safety data sheets to commercial customers and post a sign or otherwise inform them that a material safety data sheet is available. This provision of the HCS was included to prevent the necessity of providing a sheet to each customer of a retail establishment in order to ensure that employers obtained a material safety data sheet. Distributors are not required to provide material safety data sheets to retail distributors that do not sell the product

to commercial customers or open the sealed containers. The Monday, August 8, Notice of Proposed Rulemaking published in the Federal Register, proposes a modification of paragraph (g)(7) of the standard which will clarify the duties of distributors in providing material safety data sheets to be the same as those for manufacturers and importers.

RECORD ID

1944

STANDARD NUMBER
INFORMATION DATE

1910.1200(c); 1910.1200(g)(7)
880411

ABSTRACT

An Interpretive Letter regarding the definitions of "distributor" and "retail distributor," as used in 29 CFR 1910.1200. 29 CFR 1910.1200(c) defines the term "distributor" as a business, other than a chemical manufacturer or importer, which supplies hazardous chemicals to other distributors or to employers. 29 CFR 1910.1200(g)(7) defines a "retail distributor" as a business, which supplies hazardous chemicals to the general public, and may also supply hazardous chemicals to other employers.

INTERPRETATION

29 CFR 1910.1200(c); 1910.1200(g)(7)

APR 11, 1988

This is in response to your letter of March 18, regarding the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard. Specifically you request a definition of "distributor" and "retail distributor" as used in paragraph 29 CFR 1910.1200(g)(7).

The standard at paragraph 29 CFR 1910.1200(c) defines "distributor" as follows:

"Distributor" means a business, other than a chemical manufacturer or importer, which supplies hazardous chemicals to other distributors or to employers.

A "retail distributor" is a business which supplies hazardous chemicals to the general public, and may also supply hazardous chemicals to other employers. The distribution center that you described in your letter, which sells materials to building contractors and to the general public, therefore, is a "retail distributor" pursuant to 29 CFR 1910.1200(g)(7).

RECORD ID

2972

STANDARD NUMBER
INFORMATION DATE

1910.1200(b)(1); (b)(2); (b)(6)(vii); (g)(7); (g)(9)
900109

ABSTRACT

An Interpretive Letter regarding the provision of MSDSs on consumer products used in the workplace. A manufacturer of household pesticides is required to provide MSDSs to downstream employers upon request when employees work with the chemicals in a manner that results in a duration and frequency of exposure greater than what a normal consumer would experience, per (b)(6)(vii). In this case, a manufacturer chose to decline his customer MSDSs because the pesticides in question were intended to be used as consumer products. However, a chemical manufacturer is required to provide MSDSs based on how a product is actually used, not how the manufacturer intends it to be used, (b)(2), and where an exposure could occur, (c), Definitions.

INTERPRETATION

29 CFR 1910.1200(b)(1); (b)(2); (b)(6)(vii); (g)(7); (g)(9)

JAN 9, 1990

This is in response to your letter of December 4, 1989, to the Occupational Safety and Health Administration (OSHA) regarding the requirement of chemical manufacturers to provide material safety data sheets (MSDS) under the Hazard Communication Standard (HCS), 29 CFR 1910.1200.

In your letter, you correctly summarized OSHA's requirement regarding the provision of MSDS for consumer products. OSHA does not require that MSDS be provided to purchasers of household consumer products when the products are used in the workplace in the same manner that a consumer would use them, i.e.; where the duration and frequency of use (and therefore exposure) is not greater than what the typical consumer would experience. This exemption in OSHA's regulation is based, however, not upon the chemical manufacturer's intended use of his product, but upon how it actually is used in the workplace. Employees who are required to work with hazardous chemicals in a manner that results in a duration and frequency of exposure greater than what a normal consumer would experience have a right to know about the properties of those hazardous chemicals.

In your letter, you describe a situation that occurs in some institutional settings where employees use your client's "household products" (pesticides) in a manner different than how a homeowner would use them. Regarding this type of situation, you stated "...my client does not intend that its products be used except as a consumer would use the product. Should an institutional customer contact my client regarding the need for a MSDS for a particular product, where the customer intends to use the product in a manner dissimilar to that in which a homeowner would use the same product, my client intends to inform the customer that such use is not appropriate and to decline to provide the customer with a MSDS for the product." Such action on the part of your client would constitute a violation of OSHA's HCS which requires "all employers to provide information to their employees about the hazardous chemicals to which they are exposed by means of a hazard communication program, labels and other forms of warning, material safety data sheets, and information and training." (See 1910.1200(b)(1)). Furthermore, section (g)(7) requires retail distributors that sell hazardous chemicals to commercial customers to provide MSDS to such employees upon request. (Distributors obtain the MSDS, of course, from the chemical manufacturer, the preparer of the MSDS.) Additionally, the chemical manufacturer of the pesticide (your client, in the situation you portray), would have to have developed and have available at his manufacturing worksite location, MSDS for his own employees at that site who are exposed to the pesticide(s) in question during their formulation and production. Sharing the MSDS with downstream employers upon request for distribution to their employees who are also exposed meets the intent of the standard.

RECORD ID

1891

**STANDARD NUMBER
INFORMATION DATE**1910.1200(c); 1910.1200(g)(9); 1910.1200(g)(8); 1910.1200(g)(10)
890720

ABSTRACT

An Interpretive Letter concluding that a telephone hotline does not provide ready access to MSDSs. The availability of a telephone hotline does not satisfy the requirement that employees have ready access to material safety data sheets when they are in their work areas during a workshift. (See 1910.1200(g)(8) and (10).) Ready accessibility to the MSDS means that an employee may read and refer to the information during each workshift in the employee work area(s).

INTERPRETATION29 CFR 1910.1200(c); 1910.1200(g)(9); 1910.1200(g)(8);
1910.1200(g)(10)

JUL 20, 1989

This is in further response to your April 4 letter addressed to Ms. J., concerning whether the availability of a telephone hotline would satisfy the requirements of the Hazard Communication Standard (HCS) 29 CFR 1910.1200, for employee access to material safety data sheets.

As has been discussed in telephone conversations with Ms. J, such a system would not satisfy the requirements of the rule for employees to have ready access to the Material Safety Data Sheets (MSDSs) when they are in their work areas during the workshift (see 1910.1200(g)(8)). Ready accessibility to the MSDS means that the employee may read and refer to the information. This may be accomplished through actual paper copies of the data sheets, or alternatively through computer terminal access or other means of providing readable copy on-site. The only time telephone access is permitted is under the mobile worksite provision of the rule, where employees must travel between workplaces during a workshift (see 1910.1200(g)(9)). In this situation, they have access to the MSDSs prior to leaving the primary worksite and when they return, so the telephone system is simply an emergency arrangement. The system you refer to could be used at other workplaces to supplement the data sheets on-site. Having someone available to interpret the information on the MSDS could certainly increase the effectiveness of your program.

You asked if this interpretation represented a recent change in policy for OSHA. Enclosed for your reference is a Federal Register reprint of a notice of proposed rulemaking OSHA published on August 8, 1988. In addition to proposing modifications to the rule for this document, OSHA included guidance to assist employers to comply with the rule. We have marked the passage which addresses this particular interpretation (see page 29855). As indicated to you previously, the Agency's position on this issue has remained the same since the rule was first promulgated in 1983.

We appreciate the opportunity we had to meet with representatives from (Corporation) to discuss the merits and disadvantages of the telephone hotline system. We hope the above information is helpful to you in utilizing the system within the purview of the standard.

SOURCE LETTERS

APR 4, 1989

I am writing in reference to the Hazard Communication OSHA Standard, 1910.1200. Having recently become aware of a vendor provided hotline by the (Facility) Medical Center in (State), I wanted to get your impression of this service from a "readily available" MSDS standpoint, as it appears to be a very practical approach to the Hazard Communication Standard.

It is my understanding that you are familiar with the concept of the program at (Facility) Medical Center already. Our general feeling is that it has significant potential for ensuring employees have chemical related information readily available by telephone, and immediate hard-copy follow-up for file documentation. However, we must be confident that OSHA is supportive of this program prior to our investment in it.

MAY 9, 1989

SUBJECT: Hazard Communication

We are a communications company operating in some 30 states across the nation, and I feel it necessary to consult your office for a national ruling.

We are currently considering the purchase of a 24-hour watts line service that will provide MSDS information unique to our company. The term "readily accessible" has brought up the question as to exactly what would be acceptable.

Must we as an employer provide a printed MSDS to the employee within his shift or can that information he requests be verbally transmitted over the telephone with his option of receiving a copy of the MSDS by first class mail or FAX when available? We do understand the training aspect of the standard and fully intend to comply. The nature of our work may require employees to be as far as thirty miles from their field offices during their shift, but never that far from telephone service.

We have been advised by some Federal OSHA officers that a phone system is acceptable only as a secondary system. To the contrary, other authoritative sources in our industry as well as various OSHA offices commend the concept as a viable alternative to the requirement to provide information and would satisfy the standard's concept of "readily accessible".

AIM

Association for Information and Image Management

1100 Wayne Avenue, Suite 1100
Silver Spring, Maryland 20910
301/587-8202

Centimeter

Inches

MANUFACTURED TO AIM STANDARDS
BY APPLIED IMAGE, INC.

4 of 9

RECORD ID

3852

STANDARD NUMBER
INFORMATION DATE

1910.1200(g)(8); 1910.1200(h)(1)(iii); 1910.1200(g)(10)
900907

ABSTRACT

An Interpretive Letter discussing alternative methods to provide MSDSs and related information. Paragraph (g)(8) of the HCS requires MSDSs to be maintained on site and readily accessible during each workshift to employees while they are in their work area(s). OSHA has interpreted this requirement to allow the use of onsite computer systems with printers, microfiche machines, and telefax machines, as long as employees have ready access to readable MSDS copy in their work areas during all workshifts. If electronic systems are used to provide MSDS(s), employees need to be trained in the use of the machines so that they can access MSDSs with the same ease as hard copies.

INTERPRETATION

29 CFR 1910.1200(g)(8); 1910.1200(h)(1)(iii); 1910.1200(g)(10)

SEP 7, 1990

Thank you for your letter of July 23, addressed to Mr. X, Deputy Director of the Occupational Safety and Health Administration's (OSHA) Directorate of Compliance Programs. In your letter, you referred to a telephone conversation between yourself and Mr. X of July 13, in which you discussed alternative methods for providing material safety data sheets (MSDSs) to your employees as required under OSHA's Hazard Communication Standard, (HCS) 29 CFR 1910.1200.

Paragraph (g)(8) of the HCS requires MSDSs to be maintained on site and be readily accessible during each workshift to employees while they are in their work area(s). OSHA has interpreted this requirement to allow the use of on-site computer systems with printers, microfiche machines, and telefax machines, as long as readable copy of MSDSs can be provided and be readily available to employees on-site.

The key to compliance with this provision is that employees have no barriers to access to the information and that the MSDS(s) be available during all workshifts. This means that if such electronic systems are utilized to provide MSDS(s), employees need to be trained in the use of the machines so as to affect the intent of the standard, i.e., that employee access to MSDSs be accomplished with the same relative ease of access as would the maintenance of on-site hard copy MSDSs.

SOURCE LETTER

JUL 23, 1990

In our telephone conversation on July 13, 1990, we discussed alternative methods to provide Material Safety Data Sheets (MSDSs) and related information to (Phone Company) (Region) employees.

Specifically, we discussed the possibility of a single point of contact that could provide telephone support to the employees. A paper copy of the MSDS would be provided utilizing electronic media, such as facsimile machine, computer printout, electronic mail, etc.

During the conversation you informed us that OSHA does accept facsimile machine transmission as meeting the OSHA hazard communications requirement for hard copies of MSDSs. If this procedure was available to the employee, then paper copies of the MSDSs would not be required to be maintained on site.

RECORD ID

1910

STANDARD NUMBER
INFORMATION DATE

1910.1200(h)(1)(ii); 1910.1200(h)(2); 1910.1200(h)(2)(ii); 1910.120(e)
880410

ABSTRACT

An Interpretive Letter indicating that an employer must provide verbal training in a language that is comprehensible. Paragraph 1910.1200(h) requires employers to provide employees with information and training on hazardous chemicals in their work areas. If employees required to receive this information and training do not comprehend verbal English, an employer must inform and train them in a language that is comprehensible.

INTERPRETATION

29 CFR 1910.1200(h)(1)(ii); 1910.1200(h)(2); 1910.1200(h)(2)(ii);
1910.120(e)

APR 10, 1988

This is in response to your letter of March 7, regarding the training requirements of the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard, 29 CFR 1910.1200.

Specifically, your question is "...if an employer has employees who do not understand verbal English (re: receive work task instructions in a language other than English), must that employer provide the required 1910.1200 verbal training information in a language that is comprehensive?"

Paragraph 29 CFR 1910.1200(h) requires employers to provide employees with information and training on hazardous chemicals in their work area. If the employees that are required to receive this information and training do not comprehend verbal English, the employer must inform and train these employees in a language which is comprehensible in order to satisfy the requirements of 29 CFR 1910.1200(h).

RECORD ID

1913

STANDARD NUMBER
INFORMATION DATE

1910.1200(e)(3); 1910.1200(h); (h)(2); (h)(2)(iv)
880616

ABSTRACT

An Interpretive Letter regarding the HCS training of employees contracted to work under the supervision of another employer. Generic training should be given to all employees prior to job assignments where they will or could be exposed to hazardous chemicals. When employees are working under the supervision of secondary employers for extended periods, the latter employers may be contracted to provide the training specific to the hazardous materials used at their job sites. However, such an arrangement must be included in the HCP, (e)(2). It remains the primary employer's responsibility to make sure his or her employees are trained.

INTERPRETATION

29 CFR 1910.1200(e)(3); 1910.1200(h); (h)(2); (h)(2)(iv)

JUN 16, 1988

This is in response to your letter of April 27 requesting information on the training requirements of your employees as required by the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS).

The employer has the responsibility to train employees regarding protective practices implemented in their workplace and to explain the labeling system used and how to obtain and use material safety data sheets. Training is crucial to the comprehensive hazard communication program as training explains and reinforces the information presented to employees through the written mediums of labels and material safety data sheets. While the HCS provisions are performance-oriented, the minimum information in 29 CFR 1910.1200(h) must be presented to assure effective employee training concerning the hazards of the particular job assignment.

In view of the above requirements, as a minimum, generic training should be given to all your employees prior to job assignments where they will be or potentially could be exposed to hazardous chemicals. Since your employees are contracted to extended job assignments, directly working under the supervision of the other employer, you can possibly work out a contractual agreement for the other employer to provide the training specific to the hazardous materials used at that job site. It is our recommendation that you actively assure yourself that such training is being provided and is adequate to fulfill your employer responsibilities under the HCS. For your employees, the training program will most likely be the most important component of your hazard communication program because it can be individualized to your employees' abilities. Every effort must be made to train and effectively warn the employees of exposure to hazardous chemicals at the appropriate level of their understanding in view of their special educational requirements.

RECORD ID

1952

STANDARD NUMBER
INFORMATION DATE

1910.1200 (h)
880511

ABSTRACT

An Interpretive Letter as to who can provide training. HCS training can be provided by a current employer, a past employer, an employee union, or any other entity. From an enforcement standpoint, OSHA field personnel evaluate an employer's compliance with the training and information provisions of the HCS. If it is determined that an employee has not received training or is not adequately trained, the current employer is held responsible, regardless of who trained the particular employee.

INTERPRETATION

29 CFR 1910.1200 (h)

MAY 11, 1988

This is in response to your letter of January 6, concerning the Occupational Safety and Health Administration's (OSHA) August 24, 1987 letter, addressing the expanded rule for the Hazard Communication Standard (HCS).

Specifically you asked "whether a contractor's association can train union hall employees and qualify for training under the hazard communication rule," or "whether each contractor must train each employee coming to them from a union hall, irrespective of the associations." As you mentioned in your letter each employer is responsible for training under the Hazard Communication Standard. The standard, however, does not require that each new employee be trained.

The HCS is a performance-oriented standard and the goal of the training provisions is to ensure that employees are trained according to those provisions. It is OSHA's position, therefore, that training can be provided by the current employer, a past employer, an employee union, or any other entity. From an enforcement standpoint OSHA field personnel will evaluate an employer's compliance with the training and information provisions of the HCS. If it is determined that an employee has not received training or is not adequately trained the current employer will be held responsible regardless of who trained that particular employee. An employer, therefore, has a responsibility when hiring a new employee, who has been previously trained by someone other than the current employer to evaluate the employee's level of knowledge against the training and information requirements of the standard.

RECORD ID 1953

STANDARD NUMBER 1910.1200(h)
INFORMATION DATE 880506

ABSTRACT An Interpretive Letter on the retraining of employees trained previously by another employer. The performance nature of the HCS allows employers to forego retraining employees who have been previously trained by another employer, union or other entity, if the current employer ascertains that the previous training is sufficient to meet HCS training requirements for the current work being performed.

INTERPRETATION 29 CFR 1910.1200(h)

MAY 6, 1988

This is in response to your letter dated February 26, addressed to Senator X concerning the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard.

The Hazard Communication Standard (HCS) was first promulgated by OSHA in 1983 for the manufacturing sector. On August 24, 1987, OSHA extended the application of this rule from manufacturing industries to all industries covered by the Occupational Safety and Health Act of 1970. This would include the construction industry.

The HCS affirms that employees have the right to know the hazards of the materials they work with, as well as appropriate steps they can take to protect themselves. This is to be accomplished by having a hazard communication program in each covered facility, with labels on containers of such hazardous materials, more detailed information in the form of material safety data sheets, and employee training programs.

Your letter also mentions the practicality of training employees who work on a limited basis. The performance nature of the standard allows employers to forego retraining employees who have been previously trained by another employer, union or other entity, if the current employer ascertains that the previous training is sufficient to meet the standard's training requirements for the current work being performed.

RECORD ID

4397

STANDARD NUMBER
INFORMATION DATE

1910.1200(g)(6); 1910.1200(h)(1)(ii); 1910.1200(b)(2); 1910.1200(b)(6)
910508

ABSTRACT

The Hazard Communication Standard (HCS) applies to employers of personnel such as maintenance workers, building engineers, who are exposed or potentially exposed to anticorrosive chemicals associated with a humidification system. The chemical manufacturer or distributor of the chemicals is responsible for transmitting with the initial shipment a material safety data sheet (MSDS) which provides information on the chemical and safe handling procedures, among other things. The receiving or downstream employer must make the sheet available to all employees working with the chemicals as part of an overall hazard communication program. Employees such as office workers who may be incidentally exposed to the chemicals in trace amounts from the humidification system are not covered under the provisions of the HCS. The exposure of these workers is viewed as the same as that of the general public. To the extent that workers are exposed to the substances in a manner similar to that of the general public, there is no HCS applicability.

INTERPRETATION

29 CFR 1910.1200(g)(6); 1910.1200(h)(1)(ii); 1910.1200(b)(2);
1910.1200(b)(6)

MAY 8, 1991

Dear Mr. M:

Thank you for your letter of March 28, regarding the application of the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS), 29 CFR 1910.1200, to chemicals used in humidification systems in office areas. This letter is also in follow-up to the discussion held between you and Ms. S of my staff on this same topic on April 26.

You attached to your letter a copy of an article from the March/April, 1990, issue of a trade journal entitled Engineered Systems which claimed that OSHA's HCS required employers to do such tasks as retain a legal firm, contract with environmental consulting engineers to "make" an environmental impact study of humidification systems which are "chemically dependent," submit a plan for OSHA approval, and several other items. These efforts are not required under the HCS. I am enclosing for your information a recently revised booklet on the HCS entitled "Chemical Hazard Communication," along with a copy of the standard itself and OSHA's compliance directive for the HCS, CPL 2-2.38C, which will help clarify the misconceptions set forth in the trade journal article and provide information on employer responsibilities under the HCS.

Your specific question concerned whether the HCS applies to office workers who may be exposed to trace amounts of chemicals emitted from steam humidification systems which are part of the overall heating, cooling and ventilation system of the building. As discussed with you on the telephone, the requirements of the HCS would apply to employers of personnel such as maintenance workers, building engineers, or any other employees who would be exposed or potentially exposed by handling or storing the anti-corrosive chemicals or actually adding them to the humidification system. The chemical manufacturer or distributor of the chemicals is responsible for transmitting with the initial shipment a material safety data sheet (MSDS) which provides information on the chemical and safe handling procedures, among other things. The receiving or downstream employer must make the sheets available to all employees working with these chemicals as part of his overall hazard communication program. Such employees who are or may be exposed in their workplace need the protections afforded by the information that must be provided to them in their workplace hazard communication program.

However, employees such as office workers who may be incidentally exposed to the chemicals in trace amounts from the humidification system would not be covered under the provisions of the HCS. These workers' exposures would be the same as the general public or other people in the building. According to the preamble to the final Hazard Communication Standard (Federal Register, Vol. 52, No. 163, August 24, 1987, pg. 31862), "...to the extent that workers are exposed to the substances in a manner similar to that of the general public, there is no need for any HCS requirements."

We hope this discussion and enclosed information will be helpful to you in clarifying the issues you raised. Please feel free to contact us again if we can be of further assistance.

SOURCE LETTER

March 28, 1991

Dear Ms. C:

We would appreciate your opinion on a matter regarding the OSHA Hazard Communication Standard.

Several articles have appeared in a trade journal which discuss chemical use in humidification systems and requirements under the OSHA Hazard Communication Standard. A copy of one of them is attached for your review.

Please note that it discusses retaining a legal firm, contracting with an environmental consulting engineer, environmental impact statements, submitting a plan to OSHA for approval, etc. With respect to chemical exposure from these humidification systems, attached is a publication which documents that room concentrations of amines were in the low parts per billion range when steam from chemically treated boilers was used for humidification. These air concentration levels are consistent with other studies and calculations using typical chemical treatment levels.

Assuming that a room being humidified is a work area (e.g., office space), and given the typical levels of amines in the room air (ppb range), what are the requirements under the OSHA Hazard Communication for an employer? Also, are each of the nine items listed as suggested scope of work in the Engineered Systems article, consistent with the OSHA Hazard Communication Standard?

Your opinion on this matter would be greatly appreciated. If you have any questions, or need additional information, please contact me.

Attachment

Excerpt from Engineered Systems, March/April 1990, page 17-18, FOR HUMIDIFICATION CHEMICAL USE, CHECK THE LAW

In an issue of its newsletter Facilities Forum, the American Institute of Plant Engineers Foundation provided some advice for owners of steam humidification systems. The report was based on an advisory prepared by CFSI Environmental Services to inform people about OSHA regulations and their relationship to steam humidification equipment. In the report, the following procedures were recommended:

Retain a legal firm to advise on OSHA's HCS (Hazard Communication Standard) environmental requirements regarding hvac humidifiers used by the company to which any suspect or hazardous chemicals identified by MSDS (Material Safety Data Sheet) have been added.

Assign this suggested scope of work:

1. Contract with a consulting engineer to make an environmental impact study of any humidifiers that are currently in use which are chemically dependent.
2. Obtain in writing an environmental impact statement (specific to HCS) from the company's present suppliers of chemicals and chemical services for chemically dependent humidification equipment.
3. Have the legal firm summarize the engineer's and the chemical suppliers reports.
4. Have the attorney write to the regional OSHA office asking for guidance with respect to the OSHA HCS requirements for your summary of the specific chemicals concerned.
5. During the interval in which your company is waiting for answers to specific questions, you are virtually immune to OSHA prosecution, according to CFSI.

6. Discuss the attorney's final recommended HCS disclosures with your company's insurance executives. The final HCS report to any employees exposed to chemicals should reflect the position of your company's insurers.

7. Make the appropriate HCS disclosures to the employees.

8. Make a long-term plan to become independent of chemicals by up grading or abandoning chemically dependent humidifiers.

9. Have your attorneys submit in writing your long term plan to the regional OSHA agency, requesting approval of the plan and a request for notice.

The report went on to state that these procedures might be easier for a large corporation, but for small businesses, the same program can be carried out using a service company for an initial assessment and recommendation. The service company's proposals are detailed responses to your RFP (request for proposal).

CFSI recommends the following RFP:

The work should, at a minimum, provide the following information:

1. A written description of the humidifiers and humidification network currently in use at the premises.

2. A written description of the procedures and equipment that adds chemicals to the humidifiers/support systems, i.e., boilers, boiler feed systems, sumps, sprayers, injectors, etc.

3. Current chemical supplier MSDS cautions and descriptives regarding any hazards associated with the chemicals furnished for use with the above listed systems and equipment.

4. An annual total of chemicals sold and used by the facility, month-by-month as purchased, or if possible, as used.

5. A probable determination of:

- (a) how much of those chemicals are broadcast into workplaces by the humidification process;
- (b) annual exposure dose of each humidifier-broadcast MSDS-listed chemical as might be absorbed by any employee while in their workplace; and
- (c) workplace-weighted average chemical exposure levels compared with the THV permissible exposure levels for each MSDS chemical related to the humidification system.

6. A recommendation for reducing chemical dependence of the present humidifiers, or for substituting chemicals having less hazard potential than those in current use.

RECORD ID

4493

STANDARD NUMBER1910.1200(g)(7); 1910.1200(g)(6); 1910.1200(b)(1); 1910.1200(b)(6)(vii);
1910.1200(b)(6); 1910.1200(b)(6)(viii); 1910.1200(c)**INFORMATION DATE**

910909

ABSTRACT

All provisions of OSHA's Hazard Communication Standard (HCS), 29 CFR 1910.1200, are now in effect for all industrial segments, including the non-manufacturing sector. Material Safety Data Sheets (MSDSs) must be prepared and transmitted with the initial shipment of all hazardous chemicals. This includes pharmaceutical products and drugs, except for those drugs, as defined by the Federal Food, Drug and Cosmetic Act, that are in solid, final form for direct administration to the patient or are packaged for sale to consumers in a retail establishment. Research institutes that produce or synthesize chemicals must develop MSDSs for the hazardous chemicals that they distribute to other workplaces. If a chemical is produced for in-house study only, an MSDS need not be generated as long as there is MSDS information for the component chemicals utilized in the synthesis that is readily available.

INTERPRETATION29 CFR 1910.1200(g)(7); 1910.1200(g)(6); 1910.1200(b)(1);
1910.1200(b)(6)(vii); 1910.1200(b)(6); 1910.1200(b)(6)(viii);
1910.1200(c)

SEP 9 1991

Dear Ms. P:

Thank you for your letter of June 11, to the Occupational Safety and Health Administration (OSHA) regarding the requirement to develop material safety data sheets (MSDSs) for pharmaceutical products and controlled substances prepared and utilized by (Name) Institute. Please except my apology for the delay of this response.

OSHA's Hazard Communication Standard (HCS), 29 CFR 1910.1200, was first published in the Federal Register on November 25, 1982. The standard at that time applied only to the manufacturing sector, Standard Industrial Classification (SIC) Codes 20-39. OSHA was ordered by the U.S. Court of Appeals for the Third Circuit to expand the scope of the standard to cover all employers, and on August 24, 1987, a final rule covering all employers in all SIC codes was published. Due to subsequent administrative and court challenges, OSHA was prevented from (among other provisions) applying the requirements of the rule to the coverage of drugs in the non-manufacturing sector.

However, as a result of a February 21, 1990, Supreme Court decision (see *Dole, Secretary of Labor, et. al., v. United Steelworkers of America, et. al.*, No. 88-1434), all provisions of the rule are now in effect for all industrial segments, including the coverage of drugs and pharmaceuticals in the non-manufacturing sector. MSDSs are required to be prepared and transmitted with the initial shipment of all hazardous chemicals including drugs and pharmaceutical products except for drugs as defined by the Federal Food, Drug and Cosmetic Act which are in solid, final form for direct administration to the patient (i.e., tablets, pills, or capsules) or which are packaged for sale to consumers in a retail establishment.

OSHA's HCS defines "chemical manufacturer" as "an employer with a workplace where chemical(s) are produced for use or distribution." Research institutes which produce or synthesize chemicals must develop MSDSs for the hazardous chemicals that they distribute to other workplaces. If a chemical is produced for in-house study only, an MSDS need not be generated, as long as there is MSDS information for the component chemicals utilized in the synthesis which are readily available on site to exposed employees. The "preparation and delivery of research quantities of materials," as discussed in your letter, is therefore not exempt from the requirements of the HCS, and the work (Institute) does involving these activities is covered under the scope of the standard.

MSDSs need not be "submitted" to OSHA. As discussed above, they are to be developed and transmitted with the initial shipment of the chemical to downstream employers, and whenever the information required to be included on the data sheet changes. For your further information, radioactivity

and biological hazards are not covered by the HCS. If, however, another type of hazard is present along with the material (e.g., a container with a radioactive material is packed in a hazardous solvent), the container would be subject to the requirements of the HCS for the hazards of the solvent.

We hope this discussion has been responsive to the concerns you raised in your letter. For your information, we are enclosing a copy of the August 24, 1987, final Hazard Communication rule which expanded the scope of the standard to all workplaces as discussed herein. Further, as you may know, the State of North Carolina operates its own occupational safety and health program under a plan approved and closely monitored by Federal OSHA. The Occupational Safety and Health Act of 1970 gave the States the right to assume responsibility for their own occupational safety and health programs, and (State) operates such a State Plan program.

As a condition of plan approval, States are required to adopt and enforce standards that are either identical to or "at least as effective" as the Federal standards. For more information regarding the requirements of (State) standards, you may wish to contact:

SOURCE LETTER

(No Date)

Dear Ms. C:

(Company) Institute is a not for profit research institute located in (City, State). One of the Institute's technical operating units, the Chemistry and Life Sciences Group provides custom synthesis services to other researchers in the Government and industry. (Company) prepares radio labeled, stable isotope labeled and unlabeled compounds of various classes such as pharmaceuticals including contraceptives, controlled drug standards (DEA Schedules I - V), and compounds of environmental interest for use in research and testing. Our Standard Industrial Code Classification is No. 8731. As (Company) is not incorporated as a chemical manufacturer or importer, but a research institute we understand that the requirements of 29CFR 1910.1200 are not applicable to these custom synthesis activities.

(Company) has received a Request for Proposals from the National Institute on Drug Abuse entitled "Synthesis and Distribution of Drugs of Abuse" which incorporates FAR 52.223-3, "Hazardous Material Identification and Material Safety Data." Briefly, the research support required includes the custom synthesis, storage and distribution of labeled and unlabeled drugs of abuse, related compounds and drug metabolites in research quantities to researchers designated by NIDA. Most of the compounds are designated as DEA Schedule I. We understand that such activities (preparation and delivery of research quantities of materials) may be exempt from the requirements for MSDS preparation.

In addition, (Company) assumes that the requirement for submission of Material Safety Data Sheets would not be required of non-manufacturers. However, written interpretation regarding this matter is requested.

OSHA Instruction STP 2-1.113A

July 1, 1985
Office of State Programs

SUBJECT: Hazard Communication; New Permanent Standard

- A. **PURPOSE.** This instruction describes a Federal program change to the Regions and State designees.
- B. **SCOPE.** This instruction applies OSHA-wide.
- C. **CANCELLATION:** OSHA Instruction STP 2-1.113, April 9, 1984, is cancelled.
- D. **REFERENCE.** OSHA Instruction STP 2-1.117, August 31, 1984: State Standards, establishes procedures for the submission and review of different State Standards and is related to the promulgation by States of a hazard communication standard that is "at least as effective" as the Federal.
- E. **FEDERAL PROGRAM CHANGE.** This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:
 - 1. Ensure that this instruction is forwarded to each State designee,
 - 2. Provide a copy of 29 CFR 1910.1200, Hazard Communication, to the State designees up on request.
 - 3. Explain the technical content of Federal Register Notice Vol. 48, Page 53280, November 25, 1983, Hazard Communication, to the State designee as requested
 - 4. Ensure that each State designee acknowledges receipt of this instruction in writing, within 30 days of notification, to the Regional Administrator. The acknowledgment should include (a) the State's plan to adopt and implement the standard, (b) the State's plan to develop an alternative standard, which is as effective, or (c) the reasons why no standard is necessary to maintain a program which is as effective.
 - 5. Inform each State designee that:
 - a. The State must promulgate a standard within six months of the date of Federal publication that is "at least as effective" as 29 CFR 1910.1200. The State must submit a plan supplement to the Regional Administrator within 30 days of State promulgation.
 - b. A State's hazard communication standard must have an initial effective date no later than the effective date of the Federal standard, which is November 25, 1985. The State may delay the effective date for those particular provisions of its standard for which the comparable Federal provisions delay effective dates; however, the delayed effective date of a State provision may be no later than the effective comparable Federal provisions.
 - c. The State must extend the coverage of its hazard communication standard to public sector employees (State and local government) working in manufacturing environments.
 - d. If a State intends to implement its hazard communication requirements through either a standard or right-to-know law that differs significantly from the Federal, the State must submit the standard or law to the Regional Administrator as a plan supplement, with required comparison documents clearly identifying differing provisions and demonstrating that they are "at least as effective." (Where the State is implementing a

right-to-know law, the plan supplement must also demonstrate that its enforcement mechanism is "at least as effective.")

F. BACKGROUND.

1. Final rule, 29 CFR 1910.1200, Hazard Communication, was published at 48 FR 53280, November 25, 1983. Under the provisions of this final standard, each employee in the manufacturing industries who is exposed to hazardous chemicals will receive information about them through a comprehensive hazard communication program.
2. Under this standard, chemical manufacturers and importers will assess the hazards of chemicals which they produce or import.
 - a. All employers having workplaces in the manufacturing division, Standard Industrial Classification (SIC) codes 20 through 39, will provide information to their employees concerning hazardous chemicals by means of hazard communication programs including labels, material safety data sheets, training and access to written records.
 - b. In addition, distributors of hazardous chemicals are required to ensure that containers they distribute are properly labeled, and that a material safety data sheet is provided to their customers in the manufacturing division SIC codes.
3. The result of this hazard communication program will be to reduce the incidence of chemical source illnesses and injuries in the manufacturing division primarily. However, since labels are required on all containers shipped from a manufacturing facility, and material safety data sheets, while not required outside manufacturing, are also expected to move to other sectors of industry, all employees will benefit.
4. A number of States have adopted labeling and worker right-to-know laws and/or standards. Preemption of those laws and standards is a complex issue which ultimately will be resolved by the courts when raised by affected parties. However, it is OSHA's position that pursuant to Section 18 of the Act, this standard pre-empts State requirements in the area of occupational hazard communication, except in States operating OSHA approved State plans.
 - a. Standards and/or laws already in effect under State OSHA authority in State plan States are not pre-empted but must be submitted for approval in response to this Federal program change in a standards comparison format, and be demonstrated to be "at least as effective" as the new Federal hazard communication standard.
 - b. Since the hazard communication standard is "applicable to products," where a standard in a State plan State is "at least as effective" but still different from the Federal, it must be justified on the basis of compelling local conditions and not pose an undue burden on interstate commerce (29 U.S.C. 667(c)(2)). A State standard expanded in scope from the Federal (other than the required extension to State and local government employees) is considered to be a substantively different standard, and subject to the product clause test. More detailed information concerning the product clause issue is found in STP 2-1.117.
 - c. In situations where a State plan State has adopted a hazard communication provision other than as a standard under its State plan authority, the mechanism for State enforcement must also be demonstrated to be "at least as effective" as the Federal standard.
5. In light of the fact that the Federal standard was promulgated two years before its initial implementation date, States are expected to have a hazard communication standard in place and in effect by November 25, 1985, the date on which the Federal standard first becomes enforceable.

OSHA Instruction STP 2-1.140

DEC 2 1987

Office of State Programs

SUBJECT: Hazard Communication; Final Rule (Revised)

- A. **PURPOSE.** This instruction describes a Federal program change to the Regions and State designees.
- B. **SCOPE.** This instruction applies OSHA-wide.
- C. **REFERENCE.**
 - 1. OSHA Instruction STP 2-1.113A, July 1, 1985.
 - 2. OSHA Instruction STP 2-1.125, March 3, 1986.
 - 3. OSHA Instruction STP 2-1.133, December 22, 1986.
- D. **FEDERAL PROGRAM CHANGE.** This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:
 - 1. Ensure that this instruction is forwarded to each State designee.
 - 2. Provide a copy of the Federal Register notice to the State designee upon request.
 - 3. Explain the technical content of the Federal Register notice at 52 FR 31852, August 24, 1987, Hazard Communication; Final Rule, (Revised) to the State designee upon request.
 - 4. Ensure that each State designee acknowledges receipt of this instruction in writing, within 30 days of notification, to the Regional Administrator. The acknowledgment should include (a) the State's plan to adopt and implement the standard revision, (b) the State's plan to develop an alternative standard, which is as effective, or (c) the reasons why no standard is necessary to maintain a program which is as effective.
 - 5. Inform each State designee that the State must revise the State's standard to ensure that it remains at least as effective as OSHA's revised Hazard Communication Standard (HCS) 29 CFR 1910.1200, and submit a plan supplement within 6 months of the date of Federal publication.
 - 6. The State may delay the effective date for those particular provisions of its standard for which the comparable Federal provisions delay effective dates; however, the delayed effective date of a State provision may be no later than the effective date of the comparable Federal provisions.
 - 7. Inform the State designees that those States which have already adopted expanded scope Right-to-Know Laws and/or hazard communication standards must submit revised formal plan change supplements to OSHA for approval providing a comparison to OSHA's revised Hazard Communication Standard. Any different State standards should be submitted to the Regional Administrator in accord with OSHA Instruction STP 2-1.117, "State Standards."
- E. **INTERIM ENFORCEMENT.** Under 29 CFR 1953.23(a) and (b), State plan States are provided up to 6 months from publication of the Federal standard in the Federal Register to promulgate an identical or "at least as effective" as standard. If a State, for whatever reason, is unable to promulgate a standard in a timely manner (6 months for a permanent standard, 30 days for an emergency temporary standard), the State shall be expected to provide assurance that it will enforce the substantive provisions of the new or revised Federal standard through such means as use of its

general duty clause or equivalent, temporary adoption of an identical standard or an alternative, specified enforcement mechanism. Until such time as a State OSHA standard is promulgated and in effect, Federal OSHA will provide interim enforcement assistance, as appropriate.

- F. **DIFFERENT STATE STANDARDS.** Section 18(c)(2) of the OSH Act requires that State standards be "at least as effective" as the Federal and, when applicable to products used or distributed in interstate commerce, the standards must be required by compelling local conditions and not unduly burden interstate commerce. In addition to the "at least as effective" criterion, this "product clause test" will be applied to State standards with substantively different requirements from the comparable Federal standards, as discussed in OSHA Instruction STP 2-1.117.
- G. **EFFECT OF STANDARDS ON STATES.** For States that do not have OSHA-approved plans, OSHA intends this standard to pre-empt State or local government provisions requiring the preparation of material safety data sheets, labeling of chemicals and identification of their hazards, development of written hazard communication programs including lists of hazardous chemicals present in the workplace, and development and implementation of worker chemical hazard training for the primary purpose of assuring worker safety and health.
- H. **EXPLANATION.**
1. On November 25, 1983, OSHA published (48 FR 53280) the final rule, Hazard Communication. It provides that chemical manufacturers and importers are required to evaluate the hazards of the chemicals they produce or import and all manufacturers are required to have hazard communication programs for their employees exposed to hazardous chemicals. The standard was designed to reduce the hazards faced by manufacturing workers when they handle chemicals without adequate information on the physical and health hazards of the chemicals, safe handling precautions and emergency and first aid procedures. OSHA found that inadequate communication regarding chemical hazards presents a significant risk to workers.
 2. OSHA decided to limit the scope of the coverage of the HCS to the manufacturing sector based on an analysis of the chemical source illnesses and injuries occurring in each industrial sector. The Agency planned to make a decision regarding the explicit coverage of the nonmanufacturing sector once the HCS was in effect and a determination could be made as to whether the other industries were obtaining the information needed.
- I. **BACKGROUND.**
1. In 1977, OSHA initiated the public participation phase of the rulemaking process (ANPR) on a standard to require the labeling of all workplace chemicals. The ANPR requested comment and information of the need for such a standard and the particular provisions that should be included.
 2. In January 1981, OSHA published a notice of proposed rulemaking (NPRM) which would have required manufacturing employers to assess the hazards in their workplaces using specified procedures and to label containers. In February 1981, OSHA withdrew the NPRM for further consideration of regulatory alternatives and published a new NPRM entitled Hazard Communication in March 1982. It proposed to require producers of chemicals to evaluate them to determine their hazards, label containers, and provide material safety data sheets (MSDSs) to manufacturing purchasers of their products. The standard also proposed that all employers in the manufacturing sector have a hazard communication program, label in-plant containers, maintain and provide access to MSDSs and train workers. The proposal also invited comments on whether nonmanufacturing employers should be subject to the rule. OSHA published the final Hazard Communication Standard on November 25, 1983. The provisions of the final rule are very similar to those for the proposal.

3. The HCS was challenged in the U.S. Court of Appeals for the Third Circuit on several grounds. On May 24, 1985, the Court decision upheld the standard in most respects, but three issues were remanded to the Agency for reconsideration. The decision was not appealed.
4. The Court directed the Agency to: (1) reconsider a trade secret definition which would not provide trade secret protection to chemical identity information that is readily discoverable through reverse engineering; (2) adopt provisions permitting employees and their collective bargaining representatives access to trade secrets. These issues were resolved. The third issue remanded involved the scope of the standard's coverage.
5. OSHA was directed by the Court to reconsider the application of the standard to employees in the nonmanufacturing industries and to order its application to those other sectors unless the Secretary could state reasons why this application would not be feasible. The Court was not persuaded that the HCS would provide protection to uncovered workers because chemical hazard warnings would be found on container labels and detailed information of MSDSs would become increasingly available in the unregulated sectors as a result of being required in manufacturing. The Court concluded that the Secretary had not stated why it would not be feasible to require employers in nonmanufacturing industries to give workers MSDSs and training as required in the manufacturing sector. OSHA decided not to appeal this decision.
6. The Agency commissioned a study of the economic impact of extending the HCS to the 50 major nonmanufacturing industry groups within its jurisdiction and issued an advance notice of proposed rulemaking (ANPR) on November 27, 1985, seeking public comment on present hazard communication practices outside manufacturing, and the likely impact of extending the HCS to industries significantly different from the prototypical manufacturing worksites on which the original standard was based. A proposed standard was to be the next action.
7. However, on January 27, 1987, a Motion was filed for an Order Enforcing the Court's Judgment and Holding Respondent in Civil Contempt. Petitioners claimed that the Court's 1985 order had not authorized OSHA to embark on further fact gathering, that OSHA should have made a feasibility determination on the 1985 rulemaking record and even if further fact gathering had been allowed by the Court's order, OSHA's pace was unduly slow.
8. On May 29, 1987, the Court issued a decision holding that the Court's 1985 remand order required consideration of the feasibility of an expanded standard without further rulemaking. The Court declared that adequate notice had been provided nonmanufacturers during the original rulemaking that they might be covered by the HCS; that answers to the remaining questions OSHA may have regarding feasibility were self evident or readily ascertainable from the original record, and that further fact finding was unnecessary.
9. OSHA responded to the Court order by issuing a final rule expanding the scope of the HCS' coverage to all workers within OSHA's jurisdiction. The final rule implements the Court's order to issue, within 60 days of its order, a hazard communication standard applicable to all workers covered by the OSH Act.
10. The revised standard requires that chemical manufacturers, importers, and distributors ensure that material safety data sheets are provided with the next shipment of hazardous chemicals to nonmanufacturing employers or distributors after September 23, 1987, and all employers in the nonmanufacturing sector are to be in compliance with all provisions of the standard by May 23, 1988.

RECORD ID 92020601

STANDARD NUMBER 1910.1200 (g)(5), (f)(1); 1910.1000
INFORMATION DATE 19920206

ABSTRACT An interpretation regarding the applicability of the Hazard Communication Standard to acid gas respirator cartridges containing hexavalent chromium. NIOSH found no exposure to particulate Cr(VI) possible after testing several commercially available MSHA/NIOSH certified cartridges. Since no exposure is expected under normal conditions of use, and since, even under abnormal "test" conditions simulated by NIOSH no chromium was detected, the cartridges can be considered to be articles as defined under the HCS and would not be covered under the requirements of the standard.

INTERPRETATION 29 CFR 1910.1200 (g)(5), (f)(1); 1910.1000

February 06, 1992

This is in response to your memorandum of February 5, regarding the applicability of the Hazard Communication Standard to acid gas respirator cartridges containing hexavalent chromium. We apologize for the delay in this response.

At issue is whether manufacturers of these types of respirator cartridges would have to warn of the (cancer) hazard of exposure to the hexavalent chromium (Cr(VI)) present in these types of cartridges. After carefully reviewing the background information attached to your memo, it was learned that NIOSH found no exposure to particulate Cr(VI) possible after testing several commercially available MSHA/NIOSH certified cartridges. Since no exposure is expected under normal conditions of use, and since, even under abnormal "test" conditions simulated by NIOSH no chromium was detected, the cartridges can be considered to be articles as defined under the HCS and would not be covered under the requirements of the standard. Further, since manufacturers have been notified by NIOSH that acid gas cartridges containing hexavalent chromium would not be approved by NIOSH after September 1, 1990, no new manufacturing of the cartridges can be anticipated, and, therefore, any requirement of the chemical manufacturer to transmit MSDSs and labels to downstream users warning of the potential hazard would not apply. Chemical manufacturers must transmit "significant information" only with the next shipment of hazardous chemicals within three months after they become aware of the new information (29 CFR 1910.1200(g)(5)).

We hope this has been responsive to your inquiry. Feel free to contact M. S. of my staff if you have any further questions.

SOURCE LETTERS

February 5, 1991

Technical Support recently became aware that acid gas cartridges had previously contained hexavalent chromium (CrVI) in their sorbent. This was brought to our attention when a telephone inquiry to Technical Support requested an interpretation of the applicability of the hazard communication standard to those acid gas cartridges containing hexavalent chromium.

In further research and discussion with NIOSH's respirator certification branch, we learned that NIOSH had issued a letter to all respirator manufacturers stating that as of September 1, 1990, NIOSH would no longer approve acid gas cartridges containing hexavalent chromium. In the same letter NIOSH even though admitting that there was dusting of the cartridges, indicated that the risk of exposure to the user was minimal.

On January 30, 1991, S. R. of the Technical Support staff and M. S-Z. discussed the applicability of the standard. They concluded that the hazard communication standard was applicable. However, we formally request a written interpretation regarding the applicability of the standard including whether a material safety data sheet would be required. Please respond as soon as possible.

If you have any questions, please contact C. P. W., Assistant Regional Administrator for Technical Support at FTS 257-2281.

Enclosure

LETTER TO ALL RESPIRATOR MANUFACTURERS

June 15, 1990

In our "Letter to all Respirator Manufacturers" dated August 23, 1988, we suggested, "that respirator manufacturers who use chromium-impregnated sorbents in acid-gas cartridges and canisters, seriously consider replacing that sorbent with a chromium-free sorbent." This suggestion was based upon data which confirmed that hexavalent chromium (CrVI) was present in these sorbents. In the present letter, NIOSH is supplying additional information relevant to this subject.

NIOSH's current published policy states that only the insoluble forms of CrVI are potential human carcinogens (NIOSH Criteria for a Recommended Standard (1973) and NIOSH Criteria for a Recommended Standard (1975)). Since those publications, new scientific evidence has not only demonstrated the carcinogenic activity of soluble CrVI compounds in exposed animals (G. et al. 1986; L. et al. 1986; S. et al. 1986) but also has shown epidemiological evidence that indicates similar carcinogenicity among workers exposed to soluble CrVI (B. and M. 1980; F. et al. 1983; R. 1975; S. et al. 1981; S. et al. 1987). NIOSH has reevaluated its published policy. In its testimony on the Occupational Safety and Health Administration's Proposed Rule on Air Contaminants, 29 CFR 1910, on August 1, 1988, NIOSH recommended that all CrVI compounds be considered potential occupational carcinogens.

As noted in the August 23, 1988, letter, the sieve analyses that were performed on charcoal from several NIOSH/MSHA-certified acid-gas cartridges did not yield any detectable levels of CrVI in particles of respirable size. However, analysis of charcoal for CrVI from a sample from the core of these cartridges yielded 2 % to 3 % CrVI by weight. Over the past few years, NIOSH has received four separate complaints from respirator users of dusting of charcoal fines from chemical cartridges or canisters. Thus, a potential for wearer exposure to CrVI exists.

The certification regulation, 30 CFR 11 (11.61(a)), requires that NIOSH not accept respirators for examination, inspection and testing "unless they are designed on sound engineering and scientific principles, constructed of suitable materials and evidence good workmanship." NIOSH, therefore, is no longer accepting respirators which contain chromium-impregnated sorbents.

In addition, 30 CFR 11 (11.62(a)(1)) requires component parts of each respirator be "Designed, constructed, and fitted against creation of any hazard to the wearer." Although no respirable CrVI was detected from the limited number of cartridges that were analyzed, the potential for CrVI exposure to respirator wearers still exists.

Several respirator companies have already submitted chromium-free sorbents. Thus, substitute sorbents exist. NIOSH is therefore requiring that respirator manufacturers who use chromium impregnated sorbents in respirator cartridges and canisters replace these sorbents with non-toxic chromium-free sorbents. NIOSH will offer expedited testing for these submittals. Respirators containing chromium-impregnated sorbents will not be considered approved after September 1, 1990.

January 25, 1990

A number of respirator cartridges contain sorbents impregnated with soluble chromium (Cr)VI compounds. Current NIOSH policy states that only the insoluble forms of CrVI were carcinogenic. NIOSH determined that a potential existed for wearer exposure to CrVI. Therefore, in accordance with the certification regulation, 30 CFR 11, which states "The component parts of each respirator shall be designed, constructed, and fitted against creation of any hazard to the wearer." (11.62(a)(1)), VI-impregnated sorbents with less toxic ones. (See attached Letters To All Respirator Manufacturers dated May 13 and August 23, 1988.)

Recently the Certification Branch received a copy of the attached letter from L. R., DSDTT, to Ms. K. B. of the EPA. This letter changes NIOSH's current published policy on chromium VI-containing compounds. NIOSH now recommends that all forms of CrVI should be considered carcinogenic. Therefore, NIOSH will not accept any further applications for respirators containing CrVI-impregnated sorbents in accordance with 11.61(a) which states "Respirators will not be accepted by the Institute for examination, inspection and testing unless they are designed on sound engineering and scientific principles, constructed of suitable materials and evidence of good workmanship." In order to protect the respirator wearer, it was decided that NIOSH should require all manufacturers of chemical cartridges and canisters to replace the CrVI-impregnated sorbents with non-toxic materials. Currently, certified chemical cartridge respirators and gas masks containing CrVI sorbent should be decertified. Also, NIOSH should set a date when any respirator using cartridges or canisters containing CrVI should be considered not approved.

Our regulations state that "MSHA and the Institute reserve the right to jointly revoke, for cause, any certificate of approval issued pursuant to the provisions of this Part (11.34)." Please review the attached proposed "Letter to All Respirator Manufacturers" for any legal implications.

Attachments

August 23, 1988

LETTER TO ALL RESPIRATOR MANUFACTURERS

In our "Letter to all Respirator Manufacturers" dated May 13, 1988, we suggested, "that respirator manufacturers who use chromium-impregnated sorbents in acid-gas cartridges, seriously consider replacing that sorbent with a chromium-free sorbent." This suggestion was based upon data which confirmed that hexavalent chromium (CrVI) was in those sorbents. In the present letter, NIOSH is supplying additional information relevant to this subject.

NIOSH's current published policy states that only the insoluble forms of CrVI are potential human carcinogens (NIOSH 1973, NIOSH 1975). Since those publications, new scientific evidence has not only demonstrated the carcinogenic activity of soluble CrVI compounds in exposed animals (G. et al. 1986; L. et al. 1986; S. et al. 1986) but also has shown epidemiological evidence that indicates similar carcinogenicity among workers exposed to soluble CrVI (B. and M. 1980; F. et al. 1983; R. 1975; S. et al. 1981; S. et al. 1987). Because this evidence may be sufficient to reclassify the soluble CrVI compounds as carcinogens, NIOSH is presently reevaluating its published policy regarding carcinogenicity for all forms of CrVI.

As noted in the May 13 letter, the sieve analyses that were performed on charcoal from several NIOSH/MSHA-certified acid-gas cartridges did not yield any detectable levels of CrVI in particles of respirable size. However, analysis of charcoal for CrVI from a sample from the core of these cartridges, yielded 2% to 3% CrVI by weight. Thus, a potential for wearer exposure to CrVI exists.

The certification regulation, 30 CFR 11, requires component parts of each respirator be "Designed, constructed, and fitted against creation of any hazard to the wearer." (11.62(a)(1)). Although no respirable CrVI was detected for the limited number of cartridges that were analyzed, the potential for CrVI exposure to respirator wearers still exists. Therefore, NIOSH strongly urges that respirator manufacturers who use chromium impregnated sorbents in respirator cartridges replace these sorbents with chromium-free sorbents. In fact, if NIOSH determines that all CrVI compounds are potential human carcinogens, then

NIOSH will require that only less toxic sorbents be used in certified respirator cartridges. NIOSH will offer expedited testing for any manufacturer who makes such a replacement.

LETTER TO ALL RESPIRATOR MANUFACTURERS

May 13, 1988

NIOSH has recently received letters from Mr. J. S. of Grummen Corporation and from Dr. G. S. B. and Ms. J. N. of the National Safety Council, expressing concern about potential health effects of particulate sorbents which may migrate out of acid gas respirator cartridges. Their principal concern is the possible presence of hexavalent chromium on the sorbent in these cartridges.

NIOSH has tested several commercially available acid gas cartridges from MSHA/NIOSH-certified respirators. The tests included passing air containing various acid gases through the cartridges, collecting any particulate material released by the cartridges, on filters, and analyzing that particulate for Cr(VI). The analyses showed that the collected particulate material contained less than the limit of detection of Cr(VI) [0.1 ug Cr(VI)]. Sieve analysis was also performed on charcoal from several cartridges. None of the material from this analysis was of respirable size.

Although this is a negative finding, we suggest that respirator manufacturers who use chromium-impregnated sorbents in acid-gas cartridges, seriously consider replacing that sorbent with a chromium-free sorbent. NIOSH will offer expedited testing for any manufacturer who makes such a replacement.

RECORD ID 93051501

STANDARD NUMBER 1910.1200 (f); 1910.157 (a)
INFORMATION DATE 19930515

ABSTRACT An interpretation letter addressing several issues under the Hazard Communication Standard. OSHA does not require a specific labeling system for fire extinguishers or any other container. Under the labeling requirements under the Hazard Communication Standard, fire extinguishers that contain hazardous chemicals or compressed gas are required to be labeled.

INTERPRETATION 29 CFR 1910.1200 (f); 1910.157 (a)

May 15, 1993

Dear Mr. D:

Thank you for your letter of February 11, requesting interpretation of the labeling requirement specified in the Hazard Communication Standard (29 CFR 1910.1200(f)) as it pertains to fire extinguishers. Your three questions are answered below in the order they were presented in the letter.

Question No. 1: Does Subpart Z apply to fire extinguishers?

Response: Subpart Z of the Hazard Communication Standard does apply to fire extinguishers. Under the labeling requirements under the Hazard Communication Standard, fire extinguishers that contain hazardous chemicals or compressed gas are required to be labeled. A compressed gas is defined as a physical hazard in the HCS. Therefore, those fire extinguishers containing compressed gas are required to be labeled under the HCS.

Question No. 2: If Subpart Z does not apply, is OSHA contemplating any regulations which will?

Response: Another OSHA standard 29 CFR 1910.157, Portable Fire Extinguishers, applies to the placement, use, maintenance, and testing of portable fire extinguishers provided for employee use. This standard specifies requirements such as, hydrostatic testing of fire extinguisher shells and training and education on use and hazards associated with incipient stage fire fighting. A copy of that standard is enclosed for your reference.

Question No. 3: Is OSHA in any way involved in the issue of the HMIS system as applied to fire extinguishers.

Response: As stated in the response to Question No. 2, OSHA has jurisdiction over fire extinguishers for employee use. Consequently, during compliance inspections fire extinguishers are evaluated against the applicable standards. In terms of HMIS labeling system, the agency does not require the HMIS for fire extinguishers or any other container. OSHA has stated in its directive of the Hazard Communication Standard (CPL 2-2.38 C) that:

"The standard's preamble recognizes the existence of numerous labeling systems that are currently in use in industry. Examples include the HMIS (Hazardous Materials Information System), NFPA (National Fire Protection Association) and ANSI (American National Standards Institute) systems. Some of these systems rely on a numerical and/or alphabetic codes to convey the hazards. Although these labeling systems may not convey the target organ effects, the intent of the standard is to permit the use of these systems for implant labeling as long as the written Hazard Communication Program adequately addresses the issue."

We hope this information will be of assistance to you, and if you have any additional questions please contact the Office of Health Compliance Assistance (202) 219-8036.

SOURCE LETTER

February 11, 1993

Dear Mr. C:

Within the fire suppression industry, there appears to be some confusion on HMIS requirements for fire extinguishers.

The National Fire Protection Association 1990 Pamphlet 10, Section 1-7, requires content identification under the HMIS system for extinguishers manufactured after July 1, 1991.

More recently, we were made aware of the attached customer memo which indicates that OSHA requires labels on all extinguishers.

The referenced Subpart Z appears to have been taken from CFR-29 1910.1200(f). Our interpretation is that this section applies to process containers in a manufacturing setting and not to fire extinguishers.

Not wishing to rely on our interpretation, we would greatly appreciate it if you would state OSHA's position on the following:

1. Does Subpart Z apply to fire extinguishers?
2. If Subpart Z does not apply, is OSHA contemplating any regulations which will?
3. Is OSHA in any way involved in the issue of the HMIS system as applied to fire extinguishers.

The answers to the above questions will enable us to be in proper compliance as well as competitively price our service.

FIRELINE CORPORATION

THE "RIGHT TO KNOW"
It's The Law for Everyone!

The OSHA Hazard Communication Standard affects ALL businesses that produce, use, store or distribute ANY hazardous substance.

The Hazardous Materials Identification System (HMIS) is a TOTAL Right-to-Know compliance system. It includes the contents product name as it appears on the manufacturer's Material Safety Data Sheet (MSDS). It's easy to use and easy for your employees to understand. When used properly, it will help you fulfill the requirements of OSHA'S Hazard Communication Standard and various state Right-to-Know regulations.

Underwriters Laboratories (UL) listed fire extinguishers manufactured after July 1, 1991 include the HMIS information on the label.

Fireline Corporation, in order to help keep you in compliance with this law, will be attaching the correct HMIS label on your fire extinguishers that were manufactured prior to July 1, 1991 for a nominal fee of \$1.10 each.

OSHA STANDARDS FOR GENERAL INDUSTRY

SUBPART Z - OCCUPATIONAL HEALTH AND ENVIRONMENTAL CONTROL

(f) Labels and other forms of warning

(4) Except as provided in paragraphs (f)(5) and (f)(6) the employer shall ensure that each container of hazardous chemicals in the workplace is labeled, tagged or marked with the following information:

(i) Identity of the hazardous chemical(s) contained therein; and

(ii) Appropriate hazard warnings

(5) The employee may use signs, placards, process sheets, batch tickets, operating procedures, or other such written materials in lieu of affixing labels to individual stationary process containers as long as the alternative method identifies the containers to which it is applicable and conveys the information required by paragraph (f)(4) of this section to be on a label. The written materials shall be readily accessible to the employees in their work area throughout each work shift.

(6) The employer is not required to label portable containers into which hazardous chemicals are transferred from labeled containers and which are intended only for the immediate use of the employee who performs the transfer.

RECORD ID 93090701

STANDARD NUMBER 1910.1200 (h)(2), (h)
INFORMATION DATE 19930907

ABSTRACT An interpretation letter regarding the Hazard Communication Standard requirement for additional employee training whenever new hazards are identified. The receipt of a new MSDS or chemical compels the employer to evaluate the information provided in the MSDS to ascertain whether the new product represents a new health or physical hazard to employees. Retraining can be as simple as a weekly safety meeting that highlights new chemicals in the workplace.

INTERPRETATION 29 CFR 1910.1200 (h)(2), (h)

September 07, 1993

Dear Mr. W:

This is in response to your inquiry of August 11, concerning the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS), 29 CFR 1910.1200.

You requested clarification of 1910.1200(h), regarding the requirement for additional employee training whenever new hazards are identified. OSHA feels that the receipt of a new MSDS or chemical compels the employer to evaluate the information provided in the MSDS to ascertain whether the new product represents a new health or physical hazard to employees. Training would have to be provided to affected employees when new hazards are introduced into the workplace (not necessarily new chemicals).

The intent of the HCS training is to provide information to employees on the hazards they encounter in the workplace. Retraining can be as simple as a weekly safety meeting that highlights new chemicals in the workplace. As long as the initial training covers categories of chemicals and hazards, and how to read and understand MSDSs, retraining would merely have to assure that new products and chemicals are identified to the employees and that the hazards, if any, are recognized.

We hope this information is helpful. If you have any further questions please contact the Office of Health Compliance Assistance at (202) 219-8036.

SOURCE LETTER

August 11, 1993

Dear Mr. C:

It has been the generally accepted interpretation on 29 CFR 1910.1200 that re-training is to occur whenever a new hazard is introduced into the workplace as evidenced by a new MSDS, a new product, or a new chemical. I'm of the opinion this is incorrect with regards to the reasons for re-training. I also feel that re-training is not required if the initial training is comprehensive and inclusive of all hazard categories.

In the above referenced Federal Register, we as trainers are given two options for training. We can train "specifically for each chemical" or we can train "regarding categories of hazards." Now, if we train based upon hazard categories and we cover all of them, is re-training ever required since the hazard can't change?

I would appreciate your reply as soon as possible.

RECORD ID

93092701

STANDARD NUMBER
INFORMATION DATE

1910.1200 (g)(2)(i)(C)(1), (g)(2)(i)(C)(2), (f); 1910.1048 (j)(1)(ii), (j)(2)
19930927

ABSTRACT

An interpretation letter concerning the Hazard Communications Standard labeling provisions. OSHA's policy is that the hazard warning must be included on the label and must specifically convey the hazards of the chemical. OSHA has consistently maintained that this includes target organ effects. If a hazardous chemical, such as Ethylene Oxide, is present in the mixture in reportable quantities (i.e., 0.1% for carcinogens, and 1% for other health hazards), it must be reported unless the mixture has been tested as a whole or unless the material is bound in such a way that employees cannot be exposed.

INTERPRETATION

29 CFR 1910.1200 (g)(2)(i)(C)(1), (g)(2)(i)(C)(2), (f); 1910.1048 (j)(1)(ii), (j)(2)

September 27, 1993

Dear Mr. S:

This is a response to your letter of July 30, concerning the requirements under the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS), 29 CFR 1910.1200, for labeling provisions.

To follow are the two questions with answers in the respective order they were asked in your letter:

1. Does the hazard warning on the label have to exactly match the MSDS warning or can it be simplified? Further, what is the appropriate hazard warning for the listed examples?

OSHA's policy is that the hazard warning must be included on the label and must specifically convey the hazards of the chemical. OSHA has consistently maintained that this includes target organ effects.

The answers to the three examples in the order they were presented in your letter are: contact may cause eye damage, may damage the respiratory system, and may cause respiratory tract damage, respectively. Appendix A of 29 CFR 1910.1200 clearly states that employees exposed to health hazards must be apprised of both changes in body functions and the signs and symptoms that may occur to signal the changes. The definition of "hazard warning" states that the warning must convey the hazards of the chemical and is intended to include the target organ effects. For example, if, when inhaled, the chemical causes lung damage, then that is the appropriate warning. Lung damage is the hazard, not inhalation.

Further, there are some situations where the specific target organ effect is not known. Where this is the case, the more general warning statement would be permitted. For example, if the only information available is an LC50 test result, "harmful if inhaled" may be appropriate.

2. If a raw material MSDS mentions the presence of a carcinogen such as ethylene oxide in "trace amounts" and we place a small amount in one of our products we should not have to refer to the trace of a trace on our MSDS and labels. Is my interpretation correct?

Labeling and MSDS requirements for Ethylene Oxide are specified in the Ethylene Oxide Standard (29 CFR 1910.1047(j)). In terms of container labeling section 1910.1047(j)(1)(ii) states that:

"The employer shall ensure that precautionary labels are affixed to all containers of EtO whose contents are capable of causing employee exposure at or above the action level or whose contents may reasonably be foreseen to cause employee exposure above the excursion limit, and that the labels remain affixed when the containers of EtO leave the workplace."

MSDS requirements in the Ethylene Oxide Standard are identical to those in the HCS section 1910.1200(g). If a hazardous chemical, such as Ethylene Oxide, is present in the mixture in reportable quantities (i.e., 0.1% for carcinogens, and 1% for other health hazards), it must be reported unless the mixture has been tested as a whole or unless the material is bound in such a way that employees cannot be exposed. If there is no exposure (and the standard defines exposure as including potential as well as measurable exposure by any route of entry), either under normal conditions of use or in a foreseeable emergency, then the chemical is not covered by the standard. Further, information must also be included on a MSDS for ingredients of a mixture present in concentrations of less than 1% (or 0.1% for carcinogens) when the hazardous substance may be released in a concentration which exceeds a PEL or TLV or may present a health risk to exposed employees.

We hope this information is helpful. If you have any further questions please contact us at (202) 219-8036.

SOURCE LETTER

July 30, 1993

Dear Mr. G:

I am writing to obtain some official guidance regarding compliance with the labeling provisions of Right-to-Know Law OSHA 29 CFR 1910.1200.

1. Does the hazard warning on the label have to exactly match the MSDS warning or can it be simplified?

Example 1: An MSDS states "Liquid in the eyes may cause glaucoma, corneal scars, iris atrophy and cataracts"

Since I am not sure that "iris atrophy", etc. are appropriate for immediate label warnings, would "contact may cause eye damage" be considered adequate on a label or would we be in violation of the standard?

Example 2: MSDS Language: "Inhalation of high concentrations may cause laryngitis, tracheitis, pulmonary edema, and pneumonitis"

Once again I am not sure that all the "...itis" is appropriate for a label warning, would "Inhalation of high concentrations may damage the respiratory system" be sufficient?

Example 3: MSDS Language: "Chronic dust inhalation may cause inflammation of the respiratory tract, mucus membrane ulcers, and possible perforation of the nasal septum"

Would "Chronic dust inhalation may cause respiratory inflammation and mucus membrane damage" be sufficient?

In general how specific and technically/medically correct do label warnings have to be when describing target organ effects? For example, does "alveolar fibrosis" convey a better warning than "lung damage"? I do not believe the standard mandates pedantic technicalization which obfuscates the informative nature of the label.

2. If a raw material MSDS mentions the presence of a carcinogen such as ethylene oxide in "trace amounts" and we place a small amount in one of our products we should not have to refer to the trace of a trace on our MSDS and labels. Is my interpretation correct?

I am concerned that materials are being over warned and that the warnings are not easily understood by exposed workers.

I would appreciate any guidance you could offer in interpreting and applying Hazard Communication Standard requirements.

RECORD ID 92122201

STANDARD NUMBER 1910.1200 (d)(1), (e)(1)(i), (g)(2)(i)(C), (g)(2)(i)(C)(3)(xii)
INFORMATION DATE 19921222

ABSTRACT Under the Hazard Communication Standard (HCS), the employer's responsibility in making an inventory of chemicals in the work place is to list the names of all hazardous chemicals used in the workplace by using the identity that is referenced on the material safety data sheet (MSDS). The rule does not require that the hazards of each chemical on the list be indicated. Employees are informed of hazards through MSDSs and labels.

INTERPRETATION 29 CFR 1910.1200 (d)(1), (e)(1)(i), (g)(2)(i)(C), (g)(2)(i)(C)(3)(xii)

December 22, 1992

Dear Dr. B:

This is in response to your inquiry of October 7, concerning the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS), 29 CFR 1910.1200.

You requested assistance in preparing an inventory of the chemicals in your office and the hazard class for each of the chemicals in a compound. First, we will clarify your responsibility in making an inventory of chemicals in the work place: employers must list the names of all hazardous chemicals used in the workplace by using the identity that is referenced on the material safety data sheet (MSDS). This identity is often a common name, such as the product or trade name (i.e. Lime-A-Way). The rule does not require that you indicate the hazards of each chemical on the list; employees are informed of hazards through MSDSs and labels.

Since this may be a point of confusion for you, we will briefly explain the HCS's hazard determination requirements. Chemical manufacturers must either determine the hazards of the product as a whole or assume that the mixture presents the same health hazards as its components. In cases where a chemical mixture or compound has not been tested as a whole, the manufacturer's MSDS must list all of chemical components that have been determined to be hazardous which comprise one percent or greater of the mixture, or 0.1 percent or greater for components that are considered carcinogenic. In either case, where the hazard has been determined for the mixture or the individual components of the mixture, all of the information should be provided for the employer and employees in the MSDS.

If you feel that the MSDS provided to you does not adequately notify you of all hazards, you may contact the chemical manufacturer for more information or refer the inadequacy to your OSHA area office:

U.S. Department Of Labor - OSHA
3100 University Blvd. South
Room 303
Jacksonville, Florida 32216
Phone: (904) 791-2895

We hope this information is helpful. If you have any further questions please feel free to contact us at (202) 219-8036.

SOURCE LETTER

October 7, 1992

Dear S:

Attached please find a list of all the chemicals found in compounds typically used in a dental office and often found in my dental office. All of the potentially hazardous or dangerous compounds now have MSDS's supplied with them as required by rule. Often times the hazardous class information supplied by the MSDS relates to the compound as a whole unit rather than the individual chemicals in the compound.

In order to have an accurate listing of chemicals and their hazard class I need a reference to look up each of the chemicals in a compound.

I currently have a basic Hazardous Class Listing of the more common chemicals but many of the newer dental products have a complex mixing of chemicals some of which I can not find specific hazard classification on the supplied MSDS.

I would appreciate any help you can give me in this matter.

RECORD ID 93022501

STANDARD NUMBER 1910.1200 (a)(1), (b)(1), (b)(2), (b)(6)(vii), (c), (d)(1), (g)(1), (g)(2)
INFORMATION DATE 19930225

ABSTRACT The responsibility for determining whether a product is hazardous belongs to the manufacturer or importer of the chemical -- not OSHA. When chemicals which are normally used by a consumer, such as sodium chloride, are used by employees in a manner that is not comparable to typical consumer use, the Hazard Communications Standard (HCS) requires that a hazard determination be done.

INTERPRETATION 29 CFR 1910.1200 (a)(1), (b)(1), (b)(2), (b)(6)(vii), (c), (d)(1), (g)(1), (g)(2)

February 25, 1993

Dear L:

This is in response to your letter dated January 13, to Ms. M of the Department of Labor. Your letter has been forwarded to the Occupational Safety and Health Administration (OSHA) for response.

A constituent of yours, Mr. H. W. R., wrote to you asking why a material safety data sheet (MSDS) for salt was required by OSHA. We will explain the MSDS requirements of OSHA's Hazard Communication Standard (HCS) briefly for your constituent's benefit, and provide reasons for Sigma Chemical Company's decision to create the MSDS.

OSHA promulgated the HCS, codified as 29 CFR 1910.1200, to ensure that the hazards of all chemicals produced or imported in the U.S. are evaluated, and that information concerning their hazards is transmitted to employers and employees. The standard applies to all hazardous chemicals to which employees may be exposed under normal conditions of use or in a foreseeable emergency. The responsibility for determining whether a product is hazardous belongs to the manufacturer or importer of the chemical -- not OSHA.

OSHA is aware that some manufacturers prepare MSDSs on products that are not necessarily covered by the HCS. It is our understanding that this is done for product liability reasons, to satisfy regulations from several agencies at once (such as DOT's or EPA's requirements), and in response to customer requests for MSDSs on all products regardless of their hazards (sometimes an MSDS will state that the material is not covered by 29 CFR 1910.1200 -- a practice that is encouraged by OSHA). OSHA compliance staff review the quality of MSDSs when complaints are filed by the users of an MSDS and during the course of routine OSHA inspections. This is effective in ensuring that employees are given vital information about the hazards in their workplace.

The HCS exempts a consumer product if it meets the criteria in 29 CFR 1910.1200(b)(6)(vii), which requires that the employer demonstrate that using the consumer product would result in a "duration and frequency of exposure which is not greater than exposures experienced by consumers." In other words, when chemicals which are normally used by a consumer, such as sodium chloride, are used by employees in a manner that is not comparable to typical consumer use, the HCS requires that a hazard determination be done.

Sigma Chemical Company created the MSDS in question for places of work where sodium chloride is used in large quantities, i.e. in industrial settings. Sigma Chemical Company's MSDS provides information that is important for the employer and employee to know. Specifically, when airborne sodium chloride dust is inhaled it can cause respiratory irritation, and at high enough levels employees are to wear a respirator. Further, the MSDS warns the employer that sodium chloride is incompatible with strong oxidizing agents and strong acids, and reacts violently with bromine trifluoride and lithium.

As an employer doing business in the State of Indiana, Mr. R may want to contact the Indiana Department of Labor. Under the Occupational Safety and Health Act of 1970, States are permitted to assume responsibility for their own occupational safety and health programs under a plan approved and closely monitored by Federal OSHA; the Indiana Department of Labor operates under such a plan. As a condition of plan approval, States are required to adopt and enforce standards that are either identical to or "at least as effective" as the Federal standards. For information regarding the requirements of Indiana standards, Mr. R may want to contact:

Indiana Department of Labor
1013 State Office Building
100 North Senate Avenue
Indianapolis, Indiana 46204-2287
Telephone: (317) 232-2665

For further information on hazard communication, enclosed is a copy of the OSHA booklet "Chemical Hazard Communication" which explains the standard and employer's responsibility under the rule. We hope this information is helpful. If you have any further questions please contact the Office of Health Compliance Assistance at (202) 219-8036.

SOURCE LETTER

June 1, 1992

Dear L:

I attach a Material Safety Data Sheet for the safe handling of table salt as required by a governmental agency. One could wax sarcastically about this travesty suggesting that next we will be faced with recommendations for handling sugar or even water. Certainly, something is out of control!

RECORD ID 92101601

STANDARD NUMBER 1910.1200 (d)(4), (g)(2)
INFORMATION DATE 19921016

ABSTRACT The Hazard Communication Standard requires chemical manufacturers or importers to consider a chemical carcinogenic if the International Agency for Research on Cancer (IARC), National Toxicology Program (NTP) or OSHA designates the chemical as a carcinogen or potential carcinogen. Food and Drug Administration (FDA) classification is not required by the HCS. Both NTP and IARC classify acetaldehyde as a carcinogen.

INTERPRETATION 29 CFR 1910.1200 (d)(4), (g)(2)

October 6, 1992

Dear C. B.:

This is in response to your letter of September 2, on behalf of your constituent Mr. N. L. B., concerning the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS), 29 CFR 1910.1200. Mr. B. pointed out what seemed to be discrepancies in describing the hazards of the chemical acetaldehyde.

The Hazard Communication Standard requires chemical manufacturers or importers to consider a chemical carcinogenic if the International Agency for Research on Cancer (IARC), National Toxicology Program (NTP) or OSHA designates the chemical as a carcinogen or potential carcinogen (please see 29 CFR 1910.1200(d)(4)). If the chemical is a carcinogen and in concentrations of 0.1% or more the health hazard must be explained in the material safety data sheet (MSDS). We see no conflicting information, since the document which Mr. B. enclosed stated that both NTP and IARC classify acetaldehyde as a carcinogen.

Mr. B. also noted that the Food and Drug Administration (FDA) recognizes acetaldehyde as safe "for use as a flavoring," and that this conflicting information makes a judgment call difficult. When there is conflicting information that would affect employee safety and health, employers should take the more conservative approach to ensure that the work place is hazard free. In this case, however, OSHA gives solid guidance in its Hazard Communication Standard on which chemicals to label carcinogenic. FDA classification is not required by the HCS; however, if Mr. B. is interested in the FDA's studies we suggest that he contact the FDA to request their studies on the health effects of acetaldehyde as a flavoring and preservative in consumer products.

We hope this information is helpful. If you have any further questions please feel free to contact us at (202) 219-8036.

SOURCE LETTER

September 2, 1992

Dear S. M.:

A constituent brought to my attention his peculiar difficulty in attempting to comply with OSHA "Right to Know" regulations. Enclosed you will find a copy of his complaint and my response.

His frustrations with current methods of chemical hazards classifications seem to illustrate a larger need for reform. I urge you to investigate this matter and respond at your earliest convenience.

July 28, 1992

Dear T:

In compliance with OSHA "Right to Know" regulations we review the work place hazards of chemicals used at our facilities.

Attached are meeting notes used to describe the hazards of the chemical acetaldehyde. These notes point out the confusion that exists in specifying hazards under our Nation's current chemical hazards management system.

As our employees learn from page three of the guideline, acetaldehyde may be:

- "Reasonably expected to be a carcinogen"
National Toxicology Progress
- "Possibly carcinogen to Humans"
The Food and Drug Administration
- "Generally recognized as Safe"
The Food and Drug Administration

In short, a difficult judgement for the employee or management to make. I encourage you and the Congress to seek out common methods and policies for use in determining such critical definition to our employees and to the procedure management uses to insure the health of its workers.

RECORD ID 3791

STANDARD NUMBER 1910.1450(a)(3)(I); 1910.1450(a)(1)
INFORMATION DATE 900808

ABSTRACT Routine, standardized tests which monitor and support production processes and therefore can be considered as quality control, are not covered under the Laboratory Standard. Non-routine, non-production-related tests to be performed using the laboratory's sophisticated analytical instruments are covered by the standard.

INTERPRETATION 29 CFR 1910.1450(a)(3)(I); 1910.1450(a)(1)

AUG 8, 1990

Dear Mr. X:

This is in response to your letter of April 11, requesting an interpretation of the Occupational Safety and Health Administration's (OSHA) Laboratory Standard, 29 CFR 1910.1450. We apologize for the delay in response.

You stated your laboratories use various hazardous chemicals to perform routine, standardized tests which monitor and support production processes. Examples of your activities are metal analyses on steel and cast iron samples, concentration measurements of coolants for machining, and waste water analyses.

Your first question asks whether these labs must comply with 29 CFR 1910.1450. The answer is no. Since they are routine, standardized tests which monitor and support production processes and therefore can be considered as quality control, they are not covered under the standard.

Question 2 concerns non-routine, non-production-related tests to be performed using the laboratory's sophisticated analytical instruments. You asked whether this occurrence would initiate and require compliance with 29 CFR 1910.1450. The answer is yes.

SOURCE LETTER

APR 11, 1990

SUBJECT: Occupational Exposure to Hazardous Chemicals in Laboratories

Dear:

They have asked me to request your interpretation regarding who must comply with 29 CFR 1910.1450.

Our laboratories use various hazardous chemicals to perform routine, standardized tests which monitor and support production processes. The following examples illustrate our activities: metals analyses on steel and cast iron samples; concentration measurements of coolants for machining; and waste water analyses.

Question 1: In consideration of the described activities, must these labs comply with 29 CFR 1910.1450?

Question 2: Many of our labs possess sophisticated analytical tools. The opportunity exists for a non-routine, non-production related test to be performed. Would this occurrence initiate and require continued compliance with 29 CFR 1910.1450?

RECORD ID 3850

STANDARD NUMBER 1910.1450(e)(3); 1910.1200(e)(3)
INFORMATION DATE 900907

ABSTRACT An interpretation letter discussing a proposal to incorporate the Chemical Hygiene Plan (CHP) into the current written Hazard Communication program required under 29 CFR 1910.1200 and/or other related manuals. This approach would be sufficient as long as ALL information in 29 CFR 1910.1450 is covered, easily identified and readily accessible. The requirement must be met for a Chemical Hygiene Officer or a Committee to implement the CHP.

INTERPRETATION 29 CFR 1910.1450(e)(3); 1910.1200(e)(3)

SEP 7, 1990

Dear:

This is in response to your letter of July 2, regarding the Chemical Hygiene Plan (CHP) under the Occupational Safety and Health Administration's (OSHA) Laboratory Standard, 29 CFR 1910.1450. Your letter proposed to incorporate the CHP into your current Hazard Communication and/or other related manuals.

This situation would be sufficient as long as ALL information in 29 CFR 1910.1450 is covered, easily identified and readily accessible. Please note the requirement for a Chemical Hygiene Officer or a Committee to implement the CHP.

We are sending copies of this interpretation to all of our Regional Offices. Among the states you mentioned in your letter, Iowa and Minnesota are not within Federal OSHA's jurisdiction but are state-plan states which handle their own health and safety programs. Their standards are at least as effective as Federal OSHA's but can be stricter. We suggest that you contact them for their interpretation on the subject

SOURCE LETTERS

July 17, 1990

MEMORANDUM

SUBJECT: Request for Interpretation

The attached request for interpretation is forwarded for your response because it pertains to state plan locations and federal jurisdiction in states outside Region ABC (Regions ABC, DEF and XYZ). The request is dated July 2, 1990, and was directed to our (City) Area Office.

July 11, 1990

MEMORANDUM

The attached request for interpretation is forwarded for response because it pertains to state plan locations as well as federal jurisdiction. Please respond directly to and copy this office.

July 2, 1990

According to Mr. B, Manager of Industrial Hygiene with your office, a national or regional ruling may be necessary for the questions that (Company) has about the Hazard Communication Program (HazCom) and the Chemical Hygiene Plan (CHP).

(Company) operates the nation's largest independently owned common carrier liquid pipeline; an 8,500 mile system that serves ten (10) midwestern states. As a common carrier pipeline, (Company) does not own the products that are transported, rather, the Company works with more than 75 shippers who hire the pipeline to ship their products.

(Company) has a revised Hazard Communication Manual that closely coincides with the Chemical Hygiene Plan guidelines (29 CFR 1910.1450). (Company) also has other manuals (i.e., Safety, Operations, etc.) that contain pertinent information that also relates to the requirements of the Chemical Hygiene Plan.

(Company) has laboratories that are essentially for testing the transported petroleum products to ensure they meet certain quality assurance guidelines.

Due to the fact that the (Company's) laboratories are for quality assurance testing and not chemical manufacturing, and the (Company's) HazCom and other Company manuals contain the pertinent information covered by the Chemical Hygiene Plan, your approval is requested for (Company) to incorporate or reference the requirements of the CHP in our HazCom and/or other related manuals versus one designated "CHP" manual. The proposed manuals would be easily identified, readily accessible, and contain all of the information required by 29 CFR 1910.1450.

The benefits derived from using the current manuals and incorporating the CHP are; to avoid duplication of information, avoid future revision difficulties, and to enable the Company to continue providing the employees with effective information communicated in the current manuals.

Information gathered from Mr. B indicates that this situation would be sufficient for Oklahoma, as long as ALL information in 29 CFR 1910.1450 is covered. But since (Company) operates in nine other states besides Oklahoma, would this proposal be sufficient in the other states? The other states include Kansas, Missouri, Illinois, Nebraska, Iowa, South Dakota, North Dakota, Wisconsin, and Minnesota.

(Company) believes that if all areas are covered from both standards, (29 CFR 1910.1200 and 29 CFR 1910.1450) it is reasonable and appropriate to reference the CHP in our current HazCom and other related Company manuals. This would enable (Company) to cover all areas in question, use all pertinent information, have only one set of MSDS information, and still have an effective program.

RECORD ID

4059

**STANDARD NUMBER
INFORMATION DATE**

**1910.1450(g)(4)(ii)
901126**

ABSTRACT

An interpretation letter clarifying the Occupational Exposure to Hazardous Chemicals in Laboratories standard regarding a Physician's written opinion. The intent of the provisions of 1910.1450(g)(4) is to obtain a written signed opinion from the examining physician containing the result of the medical examinations and the physician's opinion as to whether the employee has any detected medical conditions which would place the employee at increased risk of material impairment from exposure to a hazardous chemical found in the workplace. The written opinion shall not reveal specific findings unrelated to occupational exposure and a copy of the opinion must be provided to the affected employee. Where the employee has an existing health impairment not due to occupational exposure but which may predispose the employee to increased health risk when exposed to chemicals, the physician should indicate the general nature of the impairment and not reveal specific illnesses.

INTERPRETATION

29 CFR 1910.1450(g)(4)(ii)

NOV 26, 1990

Dear:

This is in response to your letter of November 1, seeking clarification of the "Occupational Exposure to Hazardous Chemicals in Laboratories" regulations, 29 CFR 1910.1450. Your question refers to paragraph (g)(4) Physician's written opinion.

The intent of the provisions is to obtain a written signed opinion from the examining physician containing the result of the medical examinations and the physician's opinion as to whether the employee has any detected medical conditions which would place the employee at increased risk of material impairment from exposure to a hazardous chemical found in the workplace. The written opinion must not reveal specific findings unrelated to occupational exposure and a copy of the opinion must be provided to the affected employee.

In cases where the employee has an existing health impairment that is not due to any occupational exposure but may predispose the employee to increased health risk when exposed to chemicals, the physician should indicate the general nature of the impairment (for example, weakened immunity or decreased lung capacity) and not reveal specific illnesses, such as AIDS or emphysema.

SOURCE LETTER

November 1, 1990

I have been referred to you by another OSHA office to seek clarification on the "Occupational Exposure to Hazardous Chemicals in Laboratories" regulations. My question refers to (g)(4) Physicians written opinion:

- B states: The results of the medical examination and any associated tests.
- C states: Any medical condition which may be revealed in the course of the examination which may place the employee at increased risk as a result of exposure to a hazardous chemical found in the workplace.
- D(ii) states: The written opinion should not reveal specific findings of diagnosis unrelated to occupational exposure.

As I read the regulation the requirements of B & C are contained in D (ii). Further, B & C, as I understand them are contrary to the Code of Ethical Conduct for Physicians Providing Occupational Medical Services, a copy of which is enclosed. Please see article seven: ---"employers are entitled to counsel about the

medical fitness of individuals in relation to work, but are not entitled to diagnoses or details of a specific nature."

American College of Occupational Medicine

Code of Ethical Conduct for Physicians Providing Occupational Medical Services

These principles are intended to aid physicians in maintaining ethical conduct in providing occupational medical service. They are standards to guide physicians in their relationship with the individuals they serve, with employers and workers' representatives, with colleagues in the health professions, and with the public.

Physicians should:

1. accord highest priority to the health and safety of the individual in the workplace;
2. practice on a scientific basis with objectivity and integrity;
3. make or endorse only statements which reflect their observations or honest opinion;
4. actively oppose and strive to correct unethical conduct in relation to occupational health service;
5. avoid allowing their medical judgment to be influenced by any conflict of interest;
6. strive conscientiously to become familiar with the medical fitness requirements, the environment and the hazards of the work done by those they serve, and with the health and safety aspects of the products and operations involved;
7. treat as confidential whatever is learned about individuals served, releasing information only when required by law or by over-riding public health considerations, or to other physicians at the request of the individual according to traditional medical ethical practice; and should recognize that employers are entitled to counsel about the medical fitness of individuals in relation to work, but are not entitled to diagnoses or details of a specific nature;
8. strive continually to improve medical knowledge, and should communicate information about health hazards in timely and effective fashion to individuals or groups potentially affected, and make appropriate reports to the scientific community;
9. communicate understandably to those they serve any significant observations about their health, recommending further study, counsel or treatment when indicated;
10. seek consultation concerning the individual or the workplace whenever indicated;
11. cooperate with governmental health personnel and agencies, and foster and maintain sound ethical relationships with other members of the health professions; and
12. avoid solicitation of the use of their services by making claims, offering testimonials, or implying results which may not be achieved, but they may appropriately advise colleagues and others of services available.

RECORD ID

4066

STANDARD NUMBER
INFORMATION DATE

1910.1450(a)(1); 1910.1450(a)(3)(ii)
901011

ABSTRACT

An interpretation letter discussing if Quality Control Laboratories are covered under 29 CFR 1910.1450. Laboratories meeting the standard's definitions, 1910.1450(b), of "laboratory scale" and "laboratory use" are covered under 1910.1450. Most quality control laboratories are not expected to meet the qualification for coverage under the standard. They are usually adjuncts of production operations which typically perform repetitive procedures for the purpose of assuring reliability of a product or a process. Laboratories that conduct research and development and related analytical work are subject to the requirements of the Laboratory Standard, regardless of whether or not they are used only for support of product manufacturing.

INTERPRETATION

29 CFR 1910.1450(a)(1); 1910.1450(a)(3)(ii)

OCT 11, 1990

This is in response to your letter of September 12, regarding interpretation of the Occupational Safety and Health Administration's (OSHA) Laboratory Standard, 29 CFR 1910.1450.

Per telephone conversation with our staff member Ms. L, you were informed that laboratories meeting the standard's definitions of "laboratory scale" and "laboratory use" are covered under the standard. Most quality control laboratories are not expected to meet the qualification for coverage under the standard. They are usually adjuncts of production operations which typically perform repetitive procedures for the purpose of assuring reliability of a product or a process. Laboratories that conduct research and development and related analytical work are subject to the requirements of the Laboratory Standard, regardless of whether or not they are used only for support of the manufacturing of (Name) products.

RECORD ID 4104

STANDARD NUMBER 1910.1450(a)(1); 1910.1450(b); 1910.1450(a)(3)(ii); 1910.1200(b)(3)
INFORMATION DATE 910117

ABSTRACT Most quality control (QC) laboratories are not expected to qualify for coverage under the Laboratory Standard. Environmental labs performing analysis on samples for compliance under EPA regulations are covered by the Laboratory Standard. To clarify conditions defined under "laboratory use of hazardous chemicals,"; chemical manipulation means the use of chemicals; production means an operation where a product is produced; and multiple use of chemicals means using chemicals in laboratory procedures. In answer to a concern that QC labs have limited coverage under 1910.1200, and no coverage under the laboratory standard, the updated Hazard Communication directive, CPL 2-2.38C states that QC laboratories would generally be covered by the HCS.

INTERPRETATION 29 CFR 1910.1450(a)(1); 1910.1450(b); 1910.1450(a)(3)(ii);
1910.1200(b)(3)

JAN 17, 1991

This is in response to your letter of October 17, 1990, to OSHA's Region V Office, requesting interpretations on the Laboratory Standard, 29 CFR 1910.1450. Your letter has been forwarded to the National Office for response. We apologize for the delay.

Your questions and our answers are as follows:

1. Does 29 CFR 1910.1450 cover quality control laboratories where these facilities support the production process through sample analysis? NOTE: See attached interpretation from the (area) office.

The preamble to the standard indicates that most quality control (QC) laboratories are not expected to qualify for coverage under the Laboratory Standard, since they are usually adjuncts of production operations which typically perform repetitive procedures for the purpose for assuring reliability of a product or a process. This response does not contradict the letter from OSHA's (area) Office.

2. If samples are taken during different phases of the production process to verify quality control of the process, would these labs be covered under 1910.1450 or under 29 CFR 1910.1200?

These labs assuring quality control of the production process would not be covered under 1910.1450, but would be covered under other general industry standards including 29 CFR 1910.1200.

3. Are environmental labs performing analysis on samples for compliance under EPA regulations covered by the Lab Standard?

Yes. Most if not all of these laboratories are not conducting quality control of production processes but are monitoring emissions for environmental control purposes; therefore, they are not exempted from the Laboratory Standard. Such operations would only be considered quality control of production if the result of the monitoring is used as a source of information for process control adjustment.

If making secondary standards is part of the quality control of a production process, the Laboratory Standard would not be applicable. If blending operations result in a product, they would be considered as production processes, and not be within the scope of the Laboratory Standard.

4. Request specific clarifications of the following conditions defined under "laboratory use of hazardous chemicals," including: chemical manipulations, production versus non-production, and multiple use of chemicals.

Chemical manipulation simply means the use of chemicals. Production means an operation where a product is produced. Examples of production facilities are refineries, utility-generating companies,

manufacturing plants. Multiple use of chemicals (the actual wording in the standard is "multiple chemical procedures or chemicals are used") means using chemicals in laboratory procedures.

Your letter also addressed a concern that QC labs have limited coverage under 29 CFR 1910.1200, and no coverage under the laboratory standard. We are enclosing pages A-3 and A-4 of the updated Hazard Communication directive, CPL 2-2.38C for your information. The coverage of laboratories is limited under the Hazard Communication Standard (HCS) because it was expected that most laboratories would be covered by the Laboratory Standard. However, the directive does state that QC laboratories would generally be covered by the HCS. Please note that in the previous directive, there was no reference to limited coverage of QC labs under HCS as you had inferred.

RECORD ID 4105

STANDARD NUMBER 1910.1450(a)(1); (a)(3)(i); 1910.1200(b)(3); (b)(3)(i)
INFORMATION DATE 910116

ABSTRACT An interpretation of the Laboratory Standard's applicability in the testing of building products. Laboratories testing building products would be covered by the Laboratory Standard if some of the laboratory functions are integral part of research and do not proceed onto production. Laboratories that meet the definition of "laboratory scale" and "laboratory use" would be within the scope of the standard. Laboratories that are part of the production process or performing quality control of production would be covered by other standards including 29 CFR 1910.1200. Evaluating the suitability of raw materials may be considered research. Once raw materials are selected and will be incorporated into the formulation of a product, the laboratory activities would be considered part of the production process and therefore not be within the scope of the Laboratory Standard.

INTERPRETATION 29 CFR 1910.1450(a)(1); (a)(3)(i); 1910.1200(b)(3); (b)(3)(i)

JAN 16, 1991

This is in response to your letter of November 27, 1990, regarding 29 CFR 1910.1450, commonly known as the Laboratory Standard. You stated in your letter that it is your interpretation that only your Analytical Laboratory meets the criteria of 29 CFR 1910.1450 while the other labs, Paper, Gypsum and Joint Compound are used to "simulate as production process" on a laboratory scale and are regulated under 29 CFR 1910.1200. In these labs current raw materials or proposed raw materials are evaluated for suitability on a lab scale. A product is formulated and tested for the appropriate characteristics.

Given the above information from your letter, we cannot provide you a definitive answer on the applicability of the Laboratory Standard to your facilities. If some of these laboratory functions are integral part of research and do not proceed onto production, these operations would be covered by the Laboratory Standard. In other words, laboratories that meet the definition of "laboratory scale" and "laboratory use" would be within the scope of the standard. Laboratories that are part of the production process or performing quality control of production would be covered by other appropriate general industry standards including 29 CFR 1910.1200. For example, evaluating the suitability of raw materials may be considered research. Once raw materials are selected and will be incorporated into the formulation of a product, the laboratory activities would be considered part of the production process and therefore not be within the scope of the Laboratory Standard.

RECORD ID 4113

STANDARD NUMBER 1910.1450(a)(1); 1910.1450(b); 1910.1450(a)(3)(i)
INFORMATION DATE 910103

ABSTRACT An interpretation letter regarding QC Labs that conduct physicochemical analyses with no altering relating to Quality Control. Most quality control laboratories are not expected to meet the qualification for coverage under the Laboratory Standard, since they are typically adjuncts of production operations. Laboratories which perform some research may well be covered by the Laboratory standard. Laboratory activities that involve studying changes in specific characteristics of mixtures are more related to research development, not quality control of production. These activities would fall within the scope of the Laboratory Standard, assuming the other criteria for coverage are met.

INTERPRETATION 29 CFR 1910.1450(a)(1); 1910.1450(b); 1910.1450(a)(3)(i)

JAN 3, 1991

MEMORANDUM

SUBJECT: Clarification of Quality Control Lab - Request from Unocol Co.

This is in response to your memorandum of October 26, regarding a request for interpretation on the Laboratory Standard, 29 CFR 1910.1450, as it relates to the issue of the "quality control lab" exemption.

His first question is as follows:

- 1) Does the meaning of the phrase "procedures involved are not part of the production process" exempt from the laboratory standard a work area typically conducting repetitive physicochemical analyses to assist in directing the production and business activities at facilities? It would seem that laboratories providing results of analyses to assist in directing the production and business activities at facilities are actually "quality control" labs.

The answer would be "yes" if the laboratories are conducting physicochemical analyses related to quality control of production. The relation to business activities is not a factor in deciding the applicability of the Laboratory Standard. As the preamble to the standard indicates, most quality control laboratories are not expected to meet the qualification for coverage under the Laboratory Standard, since they are typically adjuncts of production operations. Laboratories which perform some research may well be covered by the Laboratory Standard. The repetitive nature of the operations is not a criterion for defining what is a laboratory under the Laboratory Standard but is merely discussed in the preamble to the regulation as one of the characteristics frequently found in laboratories.

The second question is as follows:

- 2) Secondly, are work areas that typically conduct repetitive physicochemical analyses considered quality control laboratories when a minor portion of their activities involve altering the composition of well-known blends and mixtures (on a laboratory scale) for the purpose of studying changes to mixtures' specific characteristics?

It is difficult to give a definite answer from the few facts presented in the incoming letter. However, from the information supplied the answer to the second question is most probably no. Laboratory activities that involve studying changes in specific characteristics of mixtures are more related to research development, not quality control of production. As such, these activities would fall within the scope of the Laboratory Standard, assuming the other criteria for coverage are met.

We hope we have adequately answered your concerns. If we can be of further assistance, please do not hesitate to contact us.

SOURCE LETTER

October 26, 1990

MEMORANDUM

SUBJECT: Clarification of Quality Control Lab - Request from Company

Per your conversation with the attached request warrants a review and written clarification of the Lab Standard as it relates to the issue of the "quality control lab" exemption.

Not only is this company a large and national petroleum company, but to date we have not adequately described the narrow parameters that are necessary to determine those labs that are truly exempt.

October 16, 1990

Dear Sir:

As you are aware, the compliance date of January 31, 1991 for the completion and implementation of a Chemical Hygiene Plan is approaching. The distinction between a "quality control laboratory" that is exempted from 29 CFR 1910.1450 and a work area that is subject to the laboratory standard remains unclear.

In order to be subject to the laboratory standard all four of the following provisions must be satisfied:

- chemical manipulations are carried out on a "laboratory scale";
 - multiple chemical procedures or chemicals are carried out;
 - the procedures involved are not part of a production process, nor in any way simulate a production process;
 - "Protective laboratory practices and equipment" are available and in common use to minimize the potential for employee exposure to hazardous chemicals.
- 1) Does the meaning of the phrase "procedures involved are not part of the production process" exempt from the laboratory standard a work area typically conducting repetitive physicochemical analyses to assist in directing the production and business activities at facilities? It would seem that laboratories providing results of analyses to assist in directing the production and business activities at facilities are actually "quality control" labs.
 - 2) Secondly, are work areas that typically conduct repetitive physicochemical analyses considered quality control laboratories when a minor portion of their activities involve altering the composition of well-known blends and mixtures (on a laboratory scale) for the purpose of studying changes to mixtures' specific characteristics?

RECORD ID

4352

STANDARD NUMBER
INFORMATION DATE

1910.1450(a)(1); 1910.1450(e)(1)(i); 1910.1200(e)(3); 1910.1200(b)(3)
910424

ABSTRACT

An employer can implement a comprehensive chemical hygiene plan for all laboratory operations whether or not the operations are covered by the 29 CFR 1910.1450 Laboratory Standard and be in compliance with the Hazard Communication Standard (HCS), including secondary container labeling requirements. If all requirements of the Laboratory Standard are met, compliance with HCS is also achieved with respect to coverage of laboratories. The Laboratory Standard covers only facilities meeting the criteria of "laboratory use" and "laboratory scale" and excludes procedures that are part of a production process. Dental and photographic laboratories are considered production facilities and are covered under the full requirements of HCS. Quality control labs are covered by more limited HCS provisions. OSHA reviews employer compliance with the Laboratory Standard and with the HCS, whichever is applicable. If the HCS is applicable to a lab operation, any citation for violations is issued under 29 CFR 1910.1200. Employers are required to ensure that labels on incoming containers of hazardous chemicals are not removed or defaced.

INTERPRETATION

29 CFR 1910.1450(a)(1); 1910.1450(e)(1)(i); 1910.1200(e)(3);
1910.1200(b)(3)

APR 24, 1991

Dear Mr. B:

This is in response to your letter of March 28, requesting an interpretation of the scope of the Occupational Safety and Health Administration (OSHA) Laboratory Standard, 29 CFR 1910.1450. Your first question asks whether an employer can implement a comprehensive chemical hygiene plan for all laboratory operations regardless of whether they are covered by this standard and be in compliance with the Hazard Communication Standard (HCS), including the secondary container labeling requirements. The answer is yes, if all requirements of the Laboratory Standard (the comprehensive chemical hygiene plan being just one of the more important requirements) are met, compliance with HCS with respect to coverage of laboratories would also be achieved.

The Laboratory Standard covers only facilities meeting the criteria of "laboratory use" and "laboratory scale" and exclude procedures that are part of a production process. Facilities such as dental laboratories or photographic laboratories are considered production facilities and are covered under the full requirements of HCS. Laboratories, such as quality control laboratories, are covered by the more limited provisions of the HCS (see 29 CFR 1910.1200(b)(3)); not all provisions of the HCS are applicable to these types of operations.

In regard to container labeling in laboratories, employers are only required to ensure labels on incoming containers of hazardous chemicals are not removed or defaced. Your second question asks whether OSHA would review an employer's compliance from the standpoint of the Laboratory Standard in the above situation, the answer is yes if the Laboratory Standard is the applicable standard. If the HCS is applicable to the laboratory operation (i.e., quality control laboratory), then any citation for violations would be issued under 29 CFR 1910.1200.

SOURCE LETTER

March 28, 1991

Dear Ms. C:

I am writing this letter to you seeking a formal interpretation of the scope of the OSHA Laboratory Standard. Specifically, can an employer implement a comprehensive chemical hygiene plan for all lab operations regardless of whether they are covered by this standard and be in compliance with the Hazard

Communication Standard, including the secondary container labeling requirements? In this situation, would OSHA review the employer's compliance from the standpoint of the Lab Standard?

RECORD ID 3752

STANDARD NUMBER 1910.1450(b); 1910.1450(a)(3)(i)
INFORMATION DATE 900622

ABSTRACT An interpretation letter regarding the laboratory standard; it does not apply to a pharmacy operation mixing cytotoxic drugs. A pharmacy operation where cytotoxic drugs are mixed would not fall under the requirements of the OSHA standard 29 CFR 1910.1450, Occupational Exposures to Hazardous Chemicals in Laboratories. According to the laboratory standard, the word "laboratory" means a facility where "the laboratory use of hazardous chemicals occurs." As outlined in 29 CFR 1910.1450(a)(1), the determination of whether the laboratory standard applies is dependent on both "laboratory use" and "laboratory scale" criteria. A pharmacy operation mixing cytotoxic drugs does not meet the "laboratory use" criteria because the operation simulates a production process.

INTERPRETATION 29 CFR 1910.1450(b); 1910.1450(a)(3)(i)

JUN 22, 1990

Dear:

This is in further response to your letter of April 30, requesting clarification of the Occupational Safety and Health Administration (OSHA) standard 29 CFR 1910.1450, Occupational Exposures to Hazardous Chemicals in Laboratories. You wanted to know if a pharmacy operation where cytotoxic drugs are mixed would fall under the requirement of the laboratory standard.

According to the laboratory standard, the word "laboratory" means a facility where "the laboratory use of hazardous chemicals occurs." As outlined in 29 CFR 1910.1450(a)(1), the determination of whether the laboratory standard applies is dependent on both "laboratory use" and "laboratory scale" criteria.

A pharmacy operation mixing cytotoxic drugs does not meet the "laboratory use" criteria because the operation simulates a production process. Laboratories generally have many hazardous chemicals present to which exposures are intermittent rather than a few substances to which there are regular exposures, as in the type of pharmacy you described. Because this pharmacy operation is not within the scope of coverage under the laboratory standard, your second question regarding the chemical hygiene plan would not be relevant.

OSHA has published guidelines on the handling of cytotoxic drugs entitled "Work Practice Guidelines for Personnel Dealing with Cytotoxic (Antineoplastic) Drugs." This OSHA Instruction PUB 8-1.1 has been available to the public since January 29, 1986. Enclosed is a copy for your reference.

SOURCE LETTER

April 30, 1990

I am writing this letter to seek clarification on the newly issued OSHA Standard 1910.1450, Occupational Exposure to Hazardous Chemicals in Laboratories.

I am seeking a clarification on the definitions of laboratory and laboratory scale. Specifically, I need to know if a pharmacy operation where cytotoxic drugs are mixed would fall under the requirements of the laboratory standard. As I interpret the definition of laboratory scale, a pharmacy involves handling of the substances which are designed to be easily and safely manipulated by one person. My interpretation is that the pharmacy does fall under the requirements of the standard.

The next question concerns subparagraph (e) chemical hygiene plan. Specifically, if the pharmacy falls under the requirements of this standard, then must that same pharmacy fall comply with the requirements of (e)(viii). These sections deal with the select carcinogen status as well as establishment of designated areas.

RECORD ID 3800

STANDARD NUMBER 1910.1450(b); 1910.1450(e)(3)(viii); 1910.1450(e)(3)(ii)
INFORMATION DATE 900730

ABSTRACT An interpretation letter regarding the "high degree of acute toxicity" under laboratory standard, 29 CFR 1910.1450. The HCS delineates between "acute" and "chronic" on the basis of severity or duration of effects and states that acute effects usually occur rapidly as a result of short-term exposures and are of short durations. Substances that are considered to have a high degree of acute toxicity are those substances which are highly toxic or toxic as defined under the HCS and may be fatal or cause damage to target organs as a result of a single exposure or exposures of short duration.

INTERPRETATION 29 CFR 1910.1450(b); 1910.1450(e)(3)(viii); 1910.1450(e)(3)(ii)

JUL 30, 1990

MEMORANDUM

SUBJECT: Laboratory Standard

This is in response to your memorandum of May 1, requesting interpretation of "high degree of acute toxicity" under the laboratory standard, 29 CFR 1910.1450.

Although there are some basic differences between the Hazard Communication Standard (HCS) and the laboratory standard, the laboratory standard tries to be consistent with HCS definitions. The HCS delineates between "acute" and "chronic" on the basis of severity or duration of effects and states that acute effects usually occur rapidly as a result of short-term exposures and are of short durations. The HCS also defines explicitly the terms "highly toxic" and "toxic" as they relate to chemicals. The preamble discussion of the laboratory standard indicates that substances with high acute toxicity may be fatal or cause damage to target organs as a result of a single exposure or exposure of short duration. Examples given are substances such as hydrogen cyanide, hydrogen sulfide, and nitrogen dioxide.

In other words, substances that are considered to have a high degree of acute toxicity are those substances which are highly toxic or toxic as defined under the HCS and may be fatal or cause damage to target organs as a result of a single exposure or exposures of short duration.

April 27, 1990

MEMORANDUM

SUBJECT: Laboratory Standard

The new laboratory standard 29 CFR 1910.1450, has requirements for additional employee protection for work with particularly hazardous substances as detailed in section (e)(3)(viii) of the standard. This section states that these particularly hazardous substances include those substances which have a "high degree of acute toxicity." The phrase "high degree of acute toxicity" is undefined in the standard and is subject to wide variation in interpretation guidance is requested concerning interpretation of this phrase.

RECORD ID 3776

STANDARD NUMBER 1910.1450(a)(2); 1910.1450(e)(3)(viii)
INFORMATION DATE 900705

ABSTRACT An interpretation letter dealing with Occupational Exposures to Hazardous Chemicals in the Laboratory. This standard strives to be consistent with Hazard Communication Standard definitions. The laboratory standard requirements for substances with "high acute toxicity" must include those substances defined in the HCS as highly toxic or toxic which may be fatal or cause damage to target organs as a result of a single exposure or exposures of short duration.

INTERPRETATION 29 CFR 1910.1450(a)(2); 1910.1450(e)(3)(viii)

JUL 5, 1990

MEMORANDUM

SUBJECT: Interpretation of Substances With High Acute Toxicity as Used in the Occupational Exposures to Hazardous Chemicals in the Laboratory Standard

Although there is a basic difference between the Hazard Communication Standard and the Occupational Exposures to Hazardous Chemicals in the Laboratory Standard, the laboratory standard strives to be consistent with Hazard Communication Standard definitions.

The Hazard Communication Standard (HCS) delineates between "acute" and "chronic" on the basis of severity or duration of effects and states, "acute effects usually occur rapidly as a result of short-term exposures, and are of short duration." The HCS also defines explicitly the terms "highly toxic" and "toxic" as they relate to chemicals. The preamble discussion of the Chemical Hygiene Plan describes substances with "high acute toxicity" as highly toxic non-carcinogenic materials or highly volatile toxic materials such as hydrogen cyanide, hydrogen sulfide and nitrogen dioxide. The preamble also states that such substances may be fatal or cause damage to target organs as a result of a single exposure or exposures of short duration.

Therefore, the laboratory standard requirements for substances with "high acute toxicity" must include those substances defined in the HCS as highly toxic or toxic which may be fatal or cause damage to target organs as a result of a single exposure or exposures of short duration.

RECORD ID 4165

STANDARD NUMBER 1910.1450(a)(1); 1910.1450(a)(3)
INFORMATION DATE 910208

ABSTRACT An interpretation letter regarding coverage of various types of laboratories by the laboratory standard. Applicability of the Laboratory Standard is discussed for electrical power generation facilities' water treatment laboratories conducting quality assurance monitoring, laboratories performing wastewater analyses simply for determining compliance with EPA discharge criteria, laboratories which monitor environmental emissions, I.H. Lab doing asbestos analysis all day long, small medical labs just drawing blood, laboratories that use chemicals to analyze blood, bench scale operations that look at substitutes for processes, soil and water analysis of unknowns, labs that use toxic materials just for calibration, fish tissue bioassays done routinely, QC/QA of manufactured products and raw materials, and development of potential new production processes.

INTERPRETATION 29 CFR 1910.1450(a)(1); 1910.1450(a)(3)

FEB 8, 1991

MEMORANDUM

SUBJECT: Requests for interpretation of the Laboratory Standard

This is in response to your memorandum of October 31, 1990, with attachments from two area offices requesting interpretations of the Laboratory Standard, 29 CFR 1910.1450. Your questions with our answers are as follows:

- a. The standard does not apply to QC/QA laboratories in manufacturing establishments. What is a manufacturing establishment? Are we referring only to establishments in SIC codes 20 - 39, or are we talking about all production facilities? For example, electrical power generation facilities produce a product, but they are not in the traditional manufacturing SIC codes (in this case power generation facilities have water treatment laboratories).

The standard talks about production processes, not manufacturing establishments. SIC codes are not used as criteria for scope of coverage. Because they are producing a product - electricity, electrical power generation facilities' water treatment laboratories conducting quality assurance monitoring used for process control information are not within the scope of the standard. However, the Laboratory Standard does apply to laboratories performing wastewater analyses simply for determining compliance with EPA discharge criteria.

- b. Are laboratories which monitor environmental emissions (air emissions, waste water quality, etc.) from the manufacturing process considered to be QA/QC laboratories? Often these do repetitive sampling and analytical procedures which are directly related to the manufacturing process.

No. As mentioned in the above, most if not all of these laboratories are not conducting operations that constitute quality control of production processes but are monitoring emissions for environmental control purposes; therefore, they are not exempted from the Laboratory Standard. Such operations would only be considered quality control of production if the result of the monitoring is used as a source of information for process control adjustment. The repetitive nature of the laboratory operations is not part of the definition of "laboratory use" or "laboratory scale" as defined in 29 CFR 1910.1450 and is merely discussed in the preamble to the regulation as one of the characteristics sometimes found in laboratories.

The memorandum from asked whether the following operations are covered by the Laboratory Standard:

- (1) I.H. Lab doing asbestos analysis all day long.

This lab would be covered by the standard, assuming the other criteria of coverage are met, since asbestos analysis is not considered a production process.

(2) Small medical labs just drawing blood.

If the labs are just drawing blood and are not performing other activities, they are not covered by the Laboratory Standard, as biological hazards are not within the scope of 29 CFR 1910.1450. However, to the extent that they use chemicals to analyze the blood, they may be covered. The labs should note, in addition, that OSHA has issued enforcement policies regarding blood-borne pathogens and infectious diseases. Please refer to OSHA Instruction CPL 2.44B, Enforcement Procedures for Occupational Exposure to Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV).

(3) Bench scale operations that look at substitutes for processes.

In most cases these operations are considered research and not quality control related to production; therefore, they are within the scope of coverage of the Laboratory Standard, if the other criteria for coverage are met.

(4) Soil and water analysis of unknowns.

If these operations are not assuring reliability of a product, they are not considered to be related to quality control of production. In such a case, they are within the scope of the Laboratory Standard, if the other criteria for coverage are met.

(5) Labs that use toxic materials just for calibration.

If the calibration is performed for the purpose of quality control of production processes, then the labs are not within the scope of coverage. If the calibration is for other purposes, assuming employees are exposed to toxic materials, then the Laboratory Standard would apply.

(6) Fish tissue bioassays done routinely.

If definitions of "laboratory scale" and "laboratory use" are met, then these bioassays are covered. The routine nature of operations is not a criterion for determination of coverage under the definitions.

In response to the questions sent in by the Hartford Office, asking which of the labs, whose functions are described below, are exempt from the Laboratory Standard:

- a. QC/QA of manufactured products and raw materials.
- b. Development of potential new production processes.

The Agency has determined that operations that meet the definition of "laboratory scale" and "laboratory use" are covered by the standard. Most quality control laboratories and pilot plants would not qualify for coverage because they simulate or are related to the production process. However, there are cases where the operations remain part of the research activity or where the quality control work is neither part of nor related to production processes. In these instances, the Laboratory Standard would apply.

Facilities that are not involved in production but perform quality analyses on the chemicals they store or utilize may be covered by the Laboratory Standard. QC/QA of raw materials for use in the production process would not be within the scope of the standard; whereas, QC/QA of raw materials for research purposes or, as in example (b) given above, development of potential new production processes, would be covered by the standard. The test to be applied when evaluating these labs under the Laboratory Standard is whether or not these labs meet the definitions of "laboratory use" and "laboratory scale," as defined in 29 CFR 1910.1450. If the definitions are met, then the standard is applicable. The words "quality control" or "routine, standardized tests" do not necessarily mean exemption from the standard. One must determine whether or not these operations simulate or are part of a production process. If not, then these operations are within the scope of the Laboratory Standard, provided that other criteria of the "laboratory use" and "laboratory scale" are met.

October 31, 1990

MEMORANDUM:

Subject: Requests for interpretation of the Laboratory Standard

Attached are two letters sent to this office requesting an interpretation of the scope and application sections of the laboratory standard. Since the answers to these questions are not readily apparent from the text of the standard and since the policy is of national significance, we are forwarding these to you for response. We should be interested in receiving copies of your response.

Besides these questions, there are two other questions which we have been asked verbally for which we seek guidance.

- a. The standard does not apply to QC/QA laboratories in manufacturing establishments. What is a manufacturing establishment? Are we referring only to establishments in SIC codes 20 - 39, or are we talking about all production facilities. For example, electrical power generation facilities produce a product, but they are not in the traditional manufacturing SIC codes (in this case power generation facilities have water treatment laboratories).
- b. Are laboratories which monitor environmental emissions (air emissions, waste water quality, etc.) from the manufacturing process considered to be QA/QC laboratories? Often these do repetitive sampling and analytical procedures which are directly related to the manufacturing process.

SOURCE LETTER

October 10, 1990

MEMORANDUM

SUBJECT: LAB STANDARD INTERPRETATION

The Springfield Office recently received several questions regarding whether certain operations fall under the new lab standard.

The questions were received by phone from an employee working at the Oak Ridge National Laboratory.

Are the following operations covered by the lab standard:

- (1) I.H. Lab doing asbestos analysis all day long.
- (2) Small medical labs just drawing blood.
- (3) Bench scale operations that look at substitutes for processes.
- (4) Soil and water analysis of unknowns.
- (5) Labs that use toxic materials just for calibration.
- (6) Fish tissue bioassays done routinely.

October 10, 1990

MEMORANDUM

SUBJECT: QUESTION OF EXEMPTION OF QA/QC LABS FROM THE LABORATORY STANDARD 29 CFR 1910.1450

There appears to be some confusion as to which laboratories are required to comply with the Laboratory Standard, and which ones are exempt.

Some QA/QC labs perform functions that are routine. What test should be applied when evaluating these labs under the Laboratory Standard?

September 17, 1990

re: 29 CFR 1910.1450 Laboratory Standard

Dear:

I am requesting an interpretation of the Laboratory Standard 29 CFR 1910.1450; specifically in regard to which laboratories are impacted. The definition "laboratory use of hazardous chemicals" exempts laboratories which simulate a production process.

A number of manufacturing plants have in-house laboratory facilities. Some of these laboratory functions are:

- a. QC/QA of manufactured products and raw materials
- b. development of potential new production processes

Please inform me which of these in-house manufacturing laboratories will be exempt from this OSHA regulations.

OSHA Instruction STP 2-1.159

April 23, 1990

**Occupational Safety and Health Administration
State Programs**

SUBJECT: Occupational Exposures to Hazardous Chemicals in Laboratories; Final Rule

- A. PURPOSE.** This instruction describes a Federal Program Change to the Regions and State designees.
- B. SCOPE.** This instruction applies OSHA-wide.
- C. REFERENCE.** OSHA Instruction STP 2-1.117, August 31, 1984, State Standards.
- D. FEDERAL PROGRAM CHANGE.** This instruction describes a Federal Program Change which affects State programs. Each Regional Administrator shall:
 - 1. Ensure that this instruction is forwarded to each State designee.
 - 2. Provide a copy of the Federal Register notice to the State designee upon request.
 - 3. Explain the technical content of the Federal Register Notice at 55 FR 3300, January 31, 1990, Occupational Exposures to Hazardous Chemicals in Laboratories, to the State designees upon request.
 - 4. Ensure that each State designee acknowledges receipt of this instruction in writing, within 30 days of notification, to the Regional Administrator. The acknowledgment should include (a) the State's plan to adopt and implement the standard change, (b) the State's plan to develop an alternative change, which is as effective, or (c) the reasons why no change is necessary to maintain a program which is as effective as the Federal program.
 - 5. Inform each State designee that the State must promulgate a standard within six months of the date of Federal publication that is "at least as effective" as 29 CFR 1910.1450 (1910 Subpart Z). The State must submit a plan supplement to the Regional Administrator within 30 days of State promulgation.
- E. DIFFERENT STANDARDS.** Section 18(c)(2) of the Act requires that State standards be "at least as effective" as the Federal and, when applicable to products used or distributed in interstate commerce, the standards must be required by compelling local conditions and not unduly burden interstate commerce. In addition to the "at least as effective" criterion, this "product clause test" will be applied to State standards with substantively different requirements from the comparable Federal standard, as described in STP 2-1.117. A State standard expanded in scope from the Federal is considered to be a substantively different standard.
- F. INTERIM ENFORCEMENT.** Under 29 CFR 1953.23(a) and (b), State plan States are provided up to six months from publication of the Federal standard in the Federal Register to promulgate an identical or "at least as effective" as standard. If a State, for whatever reason, is unable to promulgate a standard in a timely manner (six months for a permanent standard, 30 days for an emergency temporary standard) the State shall be expected to provide assurance that it will enforce the substantive provisions of the new or revised Federal standard through such means as use of its general duty clause or equivalent, temporary adoption of an identical standard, or an alternative, specified enforcement mechanism.
- G. EFFECTIVE DATE.** The final rule is effective on May 1, 1990. Employers shall have completed an appropriate Chemical Hygiene Plan and commenced carrying out its provisions by January 31, 1991. The initial effective date for an identical or different State standard may be no later than the date of State promulgation of the Federal effective date, whichever is later. Where a Federal standard contains delayed effective dates for various provisions, the State effective dates for these

provisions may be no later than the delayed Federal dates or the date of State promulgation, whichever is later. However, on a case-by-case basis, a State would be allowed to have delayed effective dates for the public sector if the State presents compelling reasons for the delay that is found acceptable.

H. EXPLANATION.

1. On January 31, 1990, OSHA issued a final rule for exposures of hazardous chemicals in laboratories.
2. The final standard applies to all laboratories that use hazardous chemicals in accordance with the definition of laboratory use and laboratory scale provided in the standard. Generally, where this standard applies it supersedes the provisions of all other standards in 29 CFR Part 1910 Subpart Z, except in specific instances identified by this standard. For laboratories covered by this standard, the obligation to maintain employee exposures at or below the permissible exposure limits (PELs) specified in 29 CFR, Part 1910 Subpart Z is retained. However, the manner in which this obligation is achieved will be determined by each employer through the formulation and implementation of a Chemical Hygiene Plan (CHP). The CHP must include the necessary work practices, procedures and policies to ensure that employees are protected from all potentially hazardous chemicals in use in their work area. Hazardous chemicals as defined by the standard include not only chemicals regulated in 29 CFR Part 1910 Subpart Z, but also any chemical meeting the definition of hazardous chemical with respect to health hazards as defined in OSHA's Hazard Communication Standard, 29 CFR 1910.1200(c).
3. In addition to other requirements, the final standard provides for employee training and information, medical consultation and examinations, hazard identification, respirator use and recordkeeping.
4. Under 29 CFR 1953.23(a) and (b), States are provided up to six months from publication in the Federal Register for adoption of parallel State standards and amendments.

OSHA Instruction STD .2

November 4, 1985

SUBJECT: Identification of General Industry Safety and Health Standards (29 CFR 1910) Applicable to Shipyard Work

A. Purpose. This instruction (a) identifies selected general industry safety and health standards (29 CFR Part 1910) having applicability to shipyard work on navigable waters and from the water's edge to the gate of the shipyard, and (b) establishes a coordinated system of enforcement between the standards so identified and those of 29 CFR Part 1915 which deal exclusively with shipyard work. OSHA believes that this instruction will serve to clarify under most circumstances occupational safety and health compliance obligations in shipyard employment. This instruction represents the first step in the agency's program to eventually consolidate 29 CFR Part 1910 standards and 29 CFR Part 1915 standards into a single comprehensive set of OSHA regulations for use at shipyard locations.

B. Scope. This instruction applies OSHA-wide.

C. Reference. OSHA General Industry standard, 29 CFR 1910.5.

D. Action. The Regional Administrator and Area Director shall ensure that the Part 1910 standards are enforced under appropriate circumstances, with the relevant Section of Part 1915, in a manner consistent with their respective scopes and definitions. Attached to this instruction is a list (Appendix A) of those Part 1910 standards which have been identified as also applicable to shipyard work.

1. The Area Director shall continue to cite alleged violations involving any identified Part 1910 standard with its original Part 1910 designation.
2. In the absence of a Part 1915 standard, the Area Director shall cite no Part 1910 standard other than those listed in Appendix A without the approval of the Regional and National Offices.
 - a. The procedure for obtaining National Office approval shall be initiated by the Regional Office in a request with supportive rationale submitted to the Director, Directorate of Field Operations.
 - b. While every effort has been made to identify those Part 1910 standards which are most likely to be applicable to shipyard work, this procedure recognizes that there are other standards which under some circumstances also may be applicable.
3. The Area Director shall issue citations under the General Duty Clause, Section (5)(a)(1) of the Act, in appropriate circumstances where employees are exposed to hazards which are covered by neither shipyard employment (Part 1915) nor General Industry Safety and Health Regulations (Part 1910).
4. The Area Director shall cite alleged violations involving externally referenced standards (e.g., ANSI, NEC, NFPA, DOT, etc.) to include the specification of the referenced standard in addition to the applicable provision of Part 1910 or Part 1915.

E. Federal Program Change. This instruction describes a Federal Program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this change is forwarded to each State designee.
2. Explain the technical content of the change to the State designee as requested.

OSHA Instruction STD .2 (cont.)

3. Ensure that State designees are asked to acknowledge receipt of the plan change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.
4. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel. Routine monitoring activities shall also be used to determine if this change has been implemented in actual performance.

F. Future Agency Changes. For the convenience of both OSHA personnel and the public, the Part 1910 standards (General Industry) which have been identified in Appendix A of this instruction as applicable to shipyard work will be integrated within the relevant Subparts and Sections of Part 1915 (Shipyard Employment). This instruction will be made available to the public and given widespread distribution.

1. However, in as much as this identification process makes no substantive alteration to any Part 1910 or Part 1915 provision, Appendix A should not be construed as permanent. The applicable provisions of part 1910 will be incorporated with the on-going comprehensive revisions of the various Subparts of Part 1915.
2. If future enforcement experience indicates that there are Part 1910 standards applicable to shipyard employment other than those previously identified, this instruction which lists such standards in Appendix A will be revised accordingly. This instruction will also be revised to reflect changes as the various subpart revisions of Part 1915 are promulgated.
3. In the future the agency intends to further clarify its health standard policy with respect to shipyard employment worksites.

G. Background. Presently, shipyard employers are obligated to comply with 29 CFR Part 1915 (Safety and Health Regulations for Shipyard Employment) and a body of standards which for the most part were developed prior to the agency's existence but were adopted by OSHA exclusively for shipyard employment pursuant to section 6(a) of the Occupational Safety and Health Act (the Act).

1. The shipyard industry standards are applicable to all shipyard operations within shipyards located adjacent to or on the navigable waters of the United States. In addition, employers covered by the Act are also presently required to adhere to OSHA's standards of general applicability in 29 CFR 1910. The relationship between the two existing sets of regulations is addressed by the agency's procedural rule 29 CFR 1910.5(c) which states:
 - (c)(1) If a particular standard is specifically applicable to a condition, practice, means, method, operation, or process, it shall prevail over any different general standard which might otherwise be applicable to the same condition, practice, means, method, operation, or process....
 - (c)(2) On the other hand, any standard shall apply according to its terms to any employment and place of employment in any industry, even though particular standards are also prescribed for the industry ... to the extent that none of such particular standards applies.
2. Thus, some Part 1910 standards are applied to shipyard employment where coverage of a Part 1915 standard is either limited or absent. As a result, it has been necessary to consult two sets of extensive regulations to determine which, if any, standards were applicable.
3. For some time, elements of both labor and management within the shipyard industry have petitioned the agency to develop a single set of OSHA regulations for the exclusive use of that industry. In response to the concerns of the affected parties, and the need for a uniform enforcement policy within the agency, OSHA staff prepared the list of selected general standards from Part 1910 and preliminarily identified them as applicable to shipyard work. This represents the first phase of an eventual "verticalization" of OSHA standards for the shipyard industry.

Appendix A

29 CFR 1910 Standards Identified As Applicable to Shipyard Employment

Subpart C - General Safety and Health Provisions

1910.20 Access to employee exposure and medical records.

Subpart D - Walking-Working Surfaces

1910.22 General requirements.

1910.23 Guarding floor and wall openings and holes.

1910.24 Fixed industrial stairs.

1910.25 Portable wood ladders.

1910.26 Portable metal ladders.

1910.27 Fixed ladders.

1910.28 Safety requirements for scaffolding.

1910.29 Manually propelled mobile ladder stands and scaffolds (towers).

1910.30 Other working surfaces.

Subpart E - Means of Egress

1910.36 General requirements.

1910.37 Means of egress, general.

Subpart F -

1910.67 Vehicle-mounted elevating and rotating work platforms.

Subpart G - Occupational Health and Environmental Control

1910.94 Ventilation.

1910.95 Occupational noise exposure.

1910.96 Ionizing radiation.

1910.97 Nonionizing radiation

Subpart H - Hazardous Materials

1910.101 Compressed gases (general requirements).

1910.102 Acetylene.

1910.103 Hydrogen.

1910.104 Oxygen.

1910.106 Flammable and combustible liquids.

1910.107 Spray finishing using flammable and combustible materials.

1910.108 Dip tanks containing flammable or combustible liquids.

1910.110 Storage and handling of liquefied petroleum gases.

Subpart J - General Environmental Controls

1910.141 Sanitation.

1910.144 Safety Color Code for Marking Physical Hazards.

Subpart K - Medical and First Aid

1910.151 Medical Services and First Aid.

OSHA Instruction STD .2 (cont.)

Subpart L - Personal Protective Equipment

- 1910.132 General requirements.**
- 1910.133 Eye and face protection.**
- 1910.134 Respiratory protection.**
- 1910.137 Electrical protective devices.**

Subpart M - Compressed Gas and Compressed Air Equipment

- 1910.169 Air receivers.**

Subpart N - Materials Handling and Storage

- 1910.176 Handling materials - general.**
- 1910.177 Servicing multi-piece and single piece rim wheels.**
- 1910.178 Powered industrial trucks.**
- 1910.179 Overhead and gantry cranes.**
- 1910.180 Crawler locomotive and truck cranes.**
- 1910.184 Slings.**

Subpart O - Machinery and Machine Guarding

- 1910.212 General requirements for all machines.**
- 1910.213 Woodworking machinery requirements.**
- 1910.215 Abrasive wheel machinery.**
- 1910.217 Mechanical power presses.**
- 1910.218 Forging machines.**
- 1910.219 Mechanical power-transmission apparatus.**

Subpart P - Hand and Portable Powered Tools and Other Hand-Held Equipment.

- 1910.242 Hand and portable powered tools and equipment, general.**
- 1910.243 Guarding of portable powered tools.**

Subpart Q - Welding, Cutting and Brazing.

- 1910.252 Welding, cutting, and brazing.**

Subpart S - Electrical Design Safety Standards for Electrical Systems

- 1910.302 Electric utilization systems.**
- 1910.303 General requirements.**
- 1910.304 Wiring design and protection.**
- 1910.305 Wiring methods, components, and equipment for general use.**
- 1910.306 Specific purpose equipment and installations.**
- 1910.307 Hazardous (classified) locations.**
- 1910.308 Special systems.**

Subpart T - Commercial Diving Operations

General

- 1910.401 Scope and application.**
- 1910.402 Definitions.**

OSHA Instruction STD .2 (cont.)

Personal Requirements

1910.410 Qualifications of dive team.

General Operations Procedures

1910.420 Safe practices manual.

1910.421 Pre-dive procedures.

1910.422 Procedures during dive.

1910.423 Post-dive procedures.

Specific Operations Procedures

1910.424 SCUBA diving.

1910.425 Surface-supplied air diving.

1910.426 Mixed-gas diving.

1910.427 Liveboating.

Equipment Procedures and Requirements

1910.430 Equipment.

Recordkeeping

1910.440 Recordkeeping requirements.

1910.441 Effective date.

Subpart Z - Toxic and Hazardous Substances

1910.1000 Air contaminants.

1910.1001 Asbestos.

1910.1018 Inorganic arsenic.

1910.1025 Lead.

1910.1200 Hazard communication.

OSHA Instruction STD .2 (cont.)

29 CFR 1915 Safety and Health Regulations

Subpart A - General Provisions

- 1915.1 Purpose and authority.**
- 1915.2 Scope and application.**
- 1915.3 Responsibility.**
- 1915.4 Definitions.**
- 1915.5 Reference specifications, standards and codes**
- 1915.6 Commercial diving operations.**
- 1915.7 Competent person.**

Subpart B - Explosive and Other Dangerous Atmospheres

- 1915.11 Scope and application of subpart.**
- 1915.12 Precautions before entering.**
- 1915.13 Cleaning and other cold work.**
- 1915.14 Certification before hot work is begun.**
- 1915.15 Maintaining gas-free conditions.**
- 1915.16 Warning signs.**

Subpart C - Surface Preparation and Preservation

- 1915.31 Scope and application of subpart.**
- 1915.32 Toxic cleaning solvents.**
- 1915.33 Chemical paint and preservative removers.**
- 1915.34 Mechanical paint removers.**
- 1915.35 Painting.**
- 1915.36 Flammable liquids.**

Subpart D - Welding, Cutting and Heating

- 1915.51 Ventilation and protection in welding, cutting and heating.**
- 1915.52 Fire prevention.**
- 1915.53 Welding, cutting and heating in way of preservative coatings.**
- 1915.54 Welding, cutting and heating of hollow metal containers and structures not covered by 1915.12.**
- 1915.55 Gas welding and cutting.**
- 1915.56 ARC welding and cutting.**
- 1915.57 Uses of fissionable material in ship repairing and shipbuilding.**

Subpart E - Scaffolds, Ladders and Other Working Surfaces.

- 1915.71 Scaffolds and staging.**
- 1915.72 Ladders.**
- 1915.73 Guarding of deck openings and edges.**
- 1915.74 Access to vessels.**
- 1915.75 Access to and guarding of dry docks and marine railways.**
- 1915.76 Access to cargo spaces and confined spaces.**
- 1915.77 Working surfaces.**

OSHA Instruction STD .2 (cont.)

Subpart F - General Working Conditions

- 1915.91 Housekeeping.
- 1915.92 Illumination.
- 1915.93 Utilities.
- 1915.94 Work in confined or isolated spaces.
- 1915.95 Work on or in the vicinity of radar and radio.
- 1915.96 Work in or on lifeboats.
- 1915.97 Health and sanitation.
- 1915.98 First aid.

Subpart G - Gear Handling and Equipment for Rigging and Materials Handling

- 1915.111 Inspection.
- 1915.112 Ropes, chains and slings.
- 1915.113 Shackles and hooks.
- 1915.114 Chain falls and pull-lifts.
- 1915.115 Hoisting and hauling equipment.
- 1915.116 Use of gear.
- 1915.117 Qualifications of operators.
- 1915.118 Tables.

Subpart H - Tools and Related Equipment

- 1915.131 General precautions.
- 1915.132 Portable electric tools.
- 1915.133 Hand tools.
- 1915.134 Abrasive wheels.
- 1915.135 Powder actuated fastening tools.
- 1915.136 Internal combustion engines other than ship's equipment.

Subpart I - Personal Protective Equipment

- 1915.151 Eye protection.
- 1915.152 Respiratory protection.
- 1915.153 Head, foot and body protection.
- 1915.154 Lifesaving equipment.

Subpart J - Ship's Machinery and Piping Systems

- 1915.161 Scope and application of subpart.
- 1915.162 Ship's boilers.
- 1915.163 Ship's piping systems.
- 1915.164 Ship's propulsion machinery.
- 1915.165 Ship's deck machinery.

Subpart K - Portable, Unfired Pressured Vessels, Drums, and Containers, Other Ship's Equipment

- 1915.171 Scope and application of subpart.
- 1915.172 Portable air receivers and other unfired pressure vessels.
- 1915.173 Drums and containers.

Subpart L - Electrical Machinery

- 1915.181 Electrical circuits and distribution boards.

RECORD ID 1226

STANDARD NUMBER 1915.55(e)(3)
INFORMATION DATE 791026

ABSTRACT Requirements of 1915.35(e)(4) and 1916.35(e)(4), fuel gas and oxygen manifolds, may be met by using a flexible, tight fitting unthreaded cap.

(Note: Standards 1915.35 and 1916.35 were revised since this interpretation letter was written in 1979. These standards have been combined and numbered 1915.55)

INTERPRETATION 29 CFR 1915.55(e)(3)

October 26, 1979

This is in further response to your letter dated September 10, 1979, requesting a permanent variance and interim order from Sections 1915.35(e)(4) and 1916.35(e)(4) Fuel Gas and Oxygen Manifolds, of the Maritime Safety and Health Regulations.

Your application has been carefully reviewed and it has been determined that your alternative does not afford protection equivalent to that afforded by the requirement of the standard. Your interpretation of the standard appears to be only with concern for physical damage to the connection. The intent of the standard is twofold - protection from physical damage, and protection from such internal contamination as grease, oil, or other materials which may cause adverse reactions with the gaseous contents.

We, therefore, deny your request for variance from Sections 1915.35(e)(4) and 1916.35(e)(4) without prejudice to the filing of another application. Affected employees and their representatives shall be notified of the denial of your application in the same manner they were informed of your request for a variance.

May we suggest, however, a possible solution to your problem. The standard requires that manifold and header hose connections, when not in use, shall be capped. The "cap" does not necessarily have to be internally threaded. If a flexible, tight fitting plastic cap which covered all the threads were utilized, it would meet the intent of the standard. It would seem that this type of cap is, or could readily be made, available.

ATTACHMENT: The following interpretation (Record ID 3353) is included as supplemental information for this first instance of OSHA Standard 1915.35.

RECORD ID 3353

STANDARD NUMBER 1910.134(e)(3)(i); 1915.35(a)(1)(i); 1915.36(a)(2); 1915.36(a)(6);
1915.94; 1926.103(b)(2)
INFORMATION DATE 900430

ABSTRACT This interpretation letter addresses a request for expedited approval to issue a citation under 1910.134(e)(3)(i) for maritime, shipbuilding operations. Shipyard is in violation of standards relating to hazards from conducting spray painting in a confined space during shipbuilding. Based on review of the facts and discussing this situation with SOL's Counsel for Trial and OSHRC Litigation, citing this shipbuilding employer for an alleged violation of 29 CFR 1910.134(e)(3)(i) can not be recommended. The application of 29 CFR 1915.35, .36 and .94 in this situation addresses these same hazards more specifically when they occur in a shipyard. Also 5(a)(1) should be considered.

INTERPRETATION

29 CFR 1910.134(e)(3)(i); 1915.35(a)(1)(i); 1915.36(a)(2);
1915.36(a)(6); 1915.94; 1926.103(b)(2)

APR 30, 1990

MEMORANDUM

SUBJECT: Request for Expedited Approval to Issue a Citation Under 1910.134 (e)(3)(i) for Maritime, Shipbuilding Operations

Your April 16, 1990, memorandum requested approval as required by OSHA Instruction STD 2 Paragraph D.2, to issue a citation to the shipyard for an alleged violation of 29 CFR 1910.134(e)(3)(i).

Per phone discussions conducted during April 18 through April 20, between Mr. B and Mr. J ((City) Area Office) the following principal facts pertain to this subject citation:

1. An employee working alone was conducting spray painting operations within confined spaces during the construction of a new vessel (Shipbuilding).
2. Entry into each confined space involved consisted of one entry way with limited and difficult access and egress.
3. Per the Material Safety Data Sheets provided by the employer, the flash point of the paint being used was 99 degrees Fahrenheit. Therefore, the paint used is considered a flammable liquid.
4. The employee was wearing a respirator of the cartridge and filter type.
5. The employee was not assigned a designated tender.
6. No fire equipment was stationed or immediately available for use outside the confined spaces.
7. No rescue equipment was available at the confined spaces during the spray painting operations.
8. No means for extracting the employee from the confined space were considered or available.
9. The paint being sprayed was determined to have been mixed with toxic solvents.
10. No competent person was assigned to monitor atmospheric conditions within the space.

After reviewing the facts and discussing this situation with SOL's Counsel for Trial and OSHRC Litigation, citing this shipbuilding employer for an alleged violation of 29 CFR subsection 1910.134(e)(3)(i) can not be recommended. A research of all existing OSHA records pertaining to this specific general industry standard and the current shipyard standards related to the type of hazards involved, indicates that the application of 1910.134(e)(3)(i) in this situation would be highly questionable in light of the fact that a more specific standard addresses these same hazards when they occur in a shipyard (i.e., 29 CFR subsection 1915.94). It is recognized that the requirements for having an additional worker available for emergencies is not as strict under this more specific standard. However, citing this more general standard would be contrary to the requirements that specific standards prevail over any applicable general standard covering the same hazardous situation. However, we can recommend that the following standards be cited with respect to this situation which involves:

"working in a confined space, with limited and difficult access, in a potentially flammable atmosphere, on a new construction vessel: "

-- 29 CFR 1915.35(a)(1)(i); "In confined spaces, employees continuously exposed to such spraying shall be protected by air line respirators in accordance with the requirements of 1915.152(a)."

-- 29 CFR 1915.36(a)(2); "Ventilation shall be provided in sufficient quantities to keep the concentration of vapors below ten (10) percent of their lower explosive limit. Frequent tests shall be made by a competent person to ascertain the concentration."

-- 29 CFR 1915.36(a)(6); "Suitable fire extinguishing equipment shall be immediately available in the work area and shall be maintained in a state of readiness for immediate use."

-- 29 CFR 1915.94; "When an employee is working alone in an isolated location, frequent checks shall be made to ensure the safety of the employee."

-- 29 CFR 1910.134(e)(1); "Standard procedures shall be developed for respirator use. These should include all information and guidance necessary for their proper selection, use, and care. Possible emergency and routine uses of respirator should be anticipated and planned for."

(NOTE: Should also consider citing 5(a)(1) in the alternative)

ATTACHMENT: The following interpretation (Record ID 3353) is included as supplemental information for the first instance of OSHA Standard 1915.36.

RECORD ID 3353

STANDARD NUMBER 1910.134(e)(3)(i); 1915.35(a)(1)(i); 1915.36(a)(2); 1915.36(a)(6);
1915.94; 1926.103(b)(2)
INFORMATION DATE 900430

ABSTRACT This interpretation letter addresses a request for expedited approval to issue a citation under 1910.134(e)(3)(i) for maritime, shipbuilding operations. Shipyard is in violation of standards relating to hazards from conducting spray painting in a confined space during shipbuilding. Based on review of the facts and discussing this situation with SOL's Counsel for Trial and OSHRC Litigation, citing this shipbuilding employer for an alleged violation of 29 CFR 1910.134(e)(3)(i) can not be recommended. The application of 29 CFR 1915.35, .36 and .94 in this situation addresses these same hazards more specifically when they occur in a shipyard. Also 5(a)(1) should be considered.

INTERPRETATION 29 CFR 1910.134(e)(3)(i); 1915.35(a)(1)(i); 1915.36(a)(2);
1915.36(a)(6); 1915.94; 1926.103(b)(2)

APR 30, 1990

MEMORANDUM

SUBJECT: Request for Expedited Approval to Issue a Citation Under 1910.134 (e)(3)(i) for Maritime, Shipbuilding Operations

Your April 16, 1990, memorandum requested approval as required by OSHA Instruction STD .2, Paragraph D2, to issue a citation to the shipyard for an alleged violation of 29 CFR 1910.134(e)(3)(i).

Per phone discussions conducted during April 18 through April 20, between Mr. B and Mr. J, ((City) Area Office) the following principal facts pertain to this subject citation:

1. An employee working alone was conducting spray painting operations within confined spaces during the construction of a new vessel (Shipbuilding).
2. Entry into each confined space involved consisted of one entry way with limited and difficult access and egress.
3. Per the Material Safety Data Sheets provided by the employer, the flash point of the paint being used was 99 degrees Fahrenheit. Therefore, the paint used is considered a flammable liquid.
4. The employee was wearing a respirator of the cartridge and filter type.
5. The employee was not assigned a designated tender.
6. No fire equipment was stationed or immediately available for use outside the confined spaces.
7. No rescue equipment was available at the confined spaces during the spray painting operations.
8. No means for extracting the employee from the confined space were considered or available.
9. The paint being sprayed was determined to have been mixed with toxic solvents.

10. No competent person was assigned to monitor atmospheric conditions within the space.

After reviewing the facts and discussing this situation with SOL's Counsel for Trial and OSHRC Litigation, citing this shipbuilding employer for an alleged violation of 29 CFR subsection 1910.134(e)(3)(i) can not be recommended. A research of all existing OSHA records pertaining to this specific general industry standard and the current shipyard standards related to the type of hazards involved, indicates that the application of 1910.134(e)(3)(i) in this situation would be highly questionable in light of the fact that a more specific standard addresses these same hazards when they occur in a shipyard (i.e., 29 CFR subsection 1915.94). It is recognized that the requirements for having an additional worker available for emergencies is not as strict under this more specific standard. However, citing this more general standard would be contrary to the requirements that specific standards prevail over any applicable general standard covering the same hazardous situation. However, we can recommend that the following standards be cited with respect to this situation which involves:

"working in a confined space, with limited and difficult access, in a potentially flammable atmosphere, on a new construction vessel."

-- 29 CFR 1915.35(a)(1)(i); "In confined spaces, employees continuously exposed to such spraying shall be protected by air line respirators in accordance with the requirements of 1915.152(a)."

-- 29 CFR 1915.36(a)(2); "Ventilation shall be provided in sufficient quantities to keep the concentration of vapors below ten (10) percent of their lower explosive limit. Frequent tests shall be made by a competent person to ascertain the concentration."

-- 29 CFR 1915.36(a)(6); "Suitable fire extinguishing equipment shall be immediately available in the work area and shall be maintained in a state of readiness for immediate use."

-- 29 CFR 1915.94; "When an employee is working alone in an isolated location, frequent checks shall be made to ensure the safety of the employee."

-- 29 CFR 1910.134(e)(1); "Standard procedures shall be developed for respirator use. These should include all information and guidance necessary for their proper selection, use, and care. Possible emergency and routine uses of respirator should be anticipated and planned for." (Note: Should also consider citing 5(a)(1) in the alternative)

RECORD ID**1842**

**STANDARD NUMBER
INFORMATION DATE****1915.55(d)(5); 1917.152(d)(3)(iv); 1926.350(f)(5)
890523**

ABSTRACT

An interpretation letter regarding couplings--Evaluation for Compliance. The couplings are in compliance with OSHA standards when properly installed for use. Applicable standards include: 1915.55(f)(5), "Hose couplings shall be of the type that cannot be unlocked or disconnected by means of a straight pull without rotary motion."; 1917.152(d)(3)(iv), "Hose couplings shall not unlock or disconnect without rotary motion."; and 1926.350(f)(5), "Hose couplings shall be of the type that cannot be unlocked or disconnected by means of a straight pull without rotary motion."

INTERPRETATION**29 CFR 1915.55(d)(5); 1917.152(d)(3)(iv); 1926.350(f)(5)****MAY 23, 1989****MEMORANDUM****SUBJECT: Couplings -- Evaluation for Compliance with OSHA Standards**

It was requested by reference (a) that the subject couplings, which are used for hose connections on oxyacetylene welding and cutting apparatus, be evaluated to determine compliance with OSHA standards. OSHA standards applicable to this evaluation include:

29 CFR 1915.55(f)(5), "Hose couplings shall be of the type that cannot be unlocked or disconnected by means of a straight pull without rotary motion."

29 CFR 1917.152(d)(3)(iv), "Hose couplings shall not unlock or disconnect without rotary motion."

29 CFR 1926.350(f)(5), "Hose couplings shall be of the type that cannot be unlocked or disconnected by means of a straight pull without rotary motion."

The couplings for oxyacetylene service consist of two coupling series. The 600-Series couplings are manufactured for oxygen service and the coupling female end is color coded green. The 700-Series couplings are manufactured for acetylene service and the coupling female end is color coded red. The 600-Series and 700-Series couplings are distinguishable from each other by feel (oxygen female sleeve is smooth, acetylene female sleeve is textured), and through design the male-to-female coupling ends are not interchangeable between coupling series.

The couplings are designed to be installed so that the coupling female end is on the gas supply side of the hose. The QD couplings are connected by rotating the female sleeve alignment mark to line up with the retaining ball, pulling back the spring loaded female sleeve, fully inserting the male end into the female end, releasing the female sleeve, and rotating the sleeve alignment mark 1/4 to 1/2 turn from the retaining ball.

If the female sleeve is aligned to the releasing position during use, it is possible for the coupling to become inadvertently disconnected by means of a straight pull. Should this possible, but unlikely, event occur the only gas that will be discharged from the hose will be from the hose coupling male end and no danger of the hose whipping about exists. This is because the female coupling end is fitted with a spring loaded valve which immediately closes when the male coupling end is removed. Therefore, with the male coupling end removed no gas can flow through the female coupling end from the gas supply.

The couplings are in compliance with OSHA standards when properly installed for use. Proper installation includes having the female coupling end on the gas supply side, and the female sleeve rotated so that the coupling cannot be disconnected by means of a straight pull.

RECORD ID 1228

STANDARD NUMBER 1915.73(b)
INFORMATION DATE 791212

ABSTRACT An interpretation of guarding for open manholes 1915.73(b)(c). "U" guards provide acceptable guarding for openings less than 24 in. in the text of the standard "shall be suitably covered or guarded" meeting the requirements of 1916.43(a), 1916.43(b), 1915 & 1916.43(c).

(Note: Standard 1916.43 was revised since this interpretation letter was written in 1979. The same information is found in the renumbered 1915.73 standard.)

INTERPRETATION 29 CFR 1915.73(b)

December 12, 1979

MEMORANDUM

SUBJECT: Your Request for interpretation of Guards for Open Manholes

Your request for an interpretation of 29 CFR 1916.43(a) and specifically a two part question on this standard is answered as follows:

Question No. 1: Does 1916.43(a) prescribe the specific method for guarding a manhole when it is in continuous use?

The standard (1916.43(a)) specifies only that such opening shall be suitably covered or guarded to height of not less than thirty inches, except where the use of such guards is made impracticable by the work actually in progress.

The words "suitably covered or guarded" appear to be the substance of your question when further related to your comment regarding prior acceptance of "U" guards by the Baltimore Area Office.

The "U" Guard in question has been deemed to provide suitable guarding for openings covered by this standard when maximum dimensions of openings do not exceed twenty four inches (24").

Guarding for openings other than those covered by 1915.43(a) and this interpretation should normally be covered by the provision of 1915 and 1916.43(b) and (c).

The background and technical data which provided for this interpretation is included for your information.

Question No. 2: Does OSHA and/or LSB have any history regarding the use of "U" type guards?

The "U" guard was designed in 1962 and the Bureau of Labor Standards endorsed its usage in the same year through their publication know as the Maritime Safety Digest.

ATTACHMENT: The following interpretation (Record ID 3353) is included as supplemental information for the first instance of OSHA Standard 1915.94.

RECORD ID

3353

STANDARD NUMBER

1910.134(e)(3)(i); 1915.35(a)(1)(i); 1915.36(a)(2); 1915.36(a)(6);
1915.94; 1926.103(b)(2)

INFORMATION DATE

900430

ABSTRACT

This interpretation letter addresses a request for expedited approval to issue a citation under 1910.134(e)(3)(i) for maritime, shipbuilding operations. Shipyard is in violation of standards relating to hazards from conducting spray painting in a confined space during shipbuilding. Based on review of the facts and discussing this situation with SOL's Counsel for Trial and Occupational Safety and Health Review Commission (OSHRC) Litigation, citing this shipbuilding employer for an alleged violation of 29 CFR 1910.134(e)(3)(i) can not be recommended. The application of 29 CFR 1915.35, .36 and .94 in this situation addresses these same hazards more specifically when they occur in a shipyard. Also 5(a)(1) should be considered.

INTERPRETATION

29 CFR 1910.134(e)(3)(i); 1915.35(a)(1)(i); 1915.36(a)(2);
1915.36(a)(6); 1915.94; 1926.103(b)(2)

APR 30, 1990

MEMORANDUM

SUBJECT: Request for Expedited Approval to Issue a Citation Under 1910.134(e)(3)(i) for Maritime, Shipbuilding Operations

Your April 16, 1990, memorandum requested approval as required by OSHA Instruction STD 2 Paragraph D.2, to issue a citation to the shipyard for an alleged violation of 29 CFR 1910.134(e)(3)(i).

Per phone discussions conducted during April 18 through April 20, between Mr. B and Mr. J, ((City) Area (Office) the following principal facts pertain to this subject citation:

1. An employee working alone was conducting spray painting operations within confined spaces during the construction of a new vessel (Shipbuilding).
2. Entry into each confined space involved consisted of one entry way with limited and difficult access and egress.
3. Per the Material Safety Data Sheets provided by the employer, the flash point of the paint being used was 99 degrees Fahrenheit. Therefore, the paint used is considered a flammable liquid.
4. The employee was wearing a respirator of the cartridge and filter type.
5. The employee was not assigned a designated tender.
6. No fire equipment was stationed or immediately available for use outside the confined spaces.
7. No rescue equipment was available at the confined spaces during the spray painting operations.
8. No means for extracting the employee from the confined space were considered or available.
9. The paint being sprayed was determined to have been mixed with toxic solvents.

10. No competent person was assigned to monitor atmospheric conditions within the space.

After reviewing the facts and discussing this situation with SOL's Counsel for Trial and OSHRC Litigation, citing this shipbuilding employer for an alleged violation of 29 CFR subsection 1910.134(e)(3)(i) can not be recommended. A research of all existing OSHA records pertaining to this specific general industry standard and the current shipyard standards relate to the type of hazards involved, indicates that the application of 1910.134(e)(3)(i) in this situation would be highly questionable in light of the fact that a more specific standard addresses these same hazards when they occur in a shipyard (i.e., 29 CFR subsection 1915.94). It is recognized that the requirements for having an additional worker available for emergencies is not as strict under this more specific standard. However, citing this more general standard would be contrary to the requirements that specific standards prevail over any applicable general standard covering the same hazardous situation. However, we can recommend that the following standards be cited with respect to this situation which involves:

"working in a confined space, with limited and difficult access, in a potentially flammable atmosphere, on a new construction vessel: "

-- 29 CFR 1915.35(a) (1) (i); "In confined spaces, employees continuously exposed to such spraying shall be protected by air line respirators in accordance with the requirements of 1915.152(a)."

-- 29 CFR 1915.36(a) (2); "Ventilation shall be provided in sufficient quantities to keep the concentration of vapors below ten (10) percent of their lower explosive limit. Frequent tests shall be made by a competent person to ascertain the concentration."

-- 29 CFR 1915.36(a) (6); "Suitable fire extinguishing equipment shall be immediately available in the work area and shall be maintained in a state of readiness for immediate use."

-- 29 CFR 1915.94; "When an employee is working alone in an isolated location, frequent checks shall be made to ensure the safety of the employee."

-- 29 CFR 1910.134 (e) (1); "Standard procedures shall be developed for respirator use. These should include all information and guidance necessary for their proper selection, use, and care. Possible emergency and routine uses of respirator should be anticipated and planned for." (Note: Should also consider citing 5(a)(1) in the alternative)

RECORD ID

2129

STANDARD NUMBER

1915.115(a)(1); 1918.13(a); 1918.13(b); 1918.13(c); 1918.13(d);
1926.605(a)

INFORMATION DATE

820614

ABSTRACT

Clarification on the applicability of crane certification under 1915.115(a) and 1918.13(a) in marine construction. The intent of 1926.605(a) applies to marine construction conducted over water. If an employer is using lifting devices to load or discharge cargo, then the operation fits into the definition of longshoring stated in 1918.3(i). The certification requirements of 1918.13 must then be adhered to.

INTERPRETATION

29 CFR 1915.115(a)(1); 1918.13(a); 1918.13(b); 1918.13(c);
1918.13(d); 1926.605(a)

June 14, 1982

MEMORANDUM

SUBJECT: Clarification on the Applicability of 1915.115(a) and 1918.13(a) in Marine Construction

References:

- (1) ("G") Memorandum, dated November 2, 1981, title, Request for Clarification on the Applicability of 29 CFR 1918, Longshoring Standards to Marine Construction 1926.605(a)(1) Equipment Repair;
- (2) ("B") Memorandum, dated July 9, 1981, titled, Request for Clarification on Applicability of 1918 Longshore Certification Standards to Marine Construction Cranes.

The Office of Compliance Programming intends to issue an OSHA Instruction to clarify the application of the subject standards to Marine Construction Operations. In addition, the Office of Safety Standards will modify 1926.605(a) to clarify its purpose and scope.

The intent of 29 CFR 1926.605 applies only to marine construction operations conducted over the water. It was never intended that construction cranes or other construction lifting devices be certificated under 29 CFR 1918 when this equipment is being used in a construction operation. However, if a construction employer is using lifting devices such as cranes to load or discharge "cargo" and the operation fits the definition of Longshoring as stated under 29 CFR 1918.3(i) then the cranes must be certificated as required by 29 CFR 1918.13.

OSHA Instruction CPL 2.32A

DEC. 21 1983

Subject: Maritime Standard Alleged Violation Elements (SAVEs) Manual

A. Purpose. This instruction transmits the revised Maritime SAVEs Manual which contains SAVEs for the Shipyard Employment Standards, new Part 1915, and the Longshoring Standards, Part 1918.

B. Scope. This instruction applies OSHA-wide.

C. Cancellation. OSHA Instruction CPL 2.32, February 15, 1979, Maritime SAVEs Manual, is canceled.

D. Action. Regional Administrators and Area Directors shall ensure that all CSHO's use the revised Maritime SAVE's Manual.

E. Explanation. The Shipyard Employment Standards, new Part 1915, is a consolidation of the Ship Repairing, Shipbuilding, and Shipbreaking standards, 29 CFR 1915, 1916, and 1917. SAVE's for the Marine Terminal Standards, new Part 1917, have been developed and will be issued as soon as possible.

F. State Plan States. Regional Administrators shall advise State designees of the action required by this instruction and encourage their participation in the SAVE's program. In addition, they shall encourage the States to submit suggestions for additions, deletions, or revisions to the SAVE's.

OSHA Instruction CPL 2.32A CH-1

AUG 27 1984

**Office of General Industry
Compliance Assistance**

SUBJECT: Addition to the Maritime Standard Alleged Violation Elements (SAVE's) Manual

A. Purpose. This instruction transmits SAVEs for the Marine Terminal standards, 29 CFR Part 1917, and renumbers the pages containing the SAVEs for Longshoring, 29 CFR Part 1918.

B. Scope. This instruction applies OSHA-wide.

C. Action. Regional Administrators and Area Directors shall ensure that all compliance personnel remove existing pages 129 through 195 and insert the attached pages, 129 through 323, into the Maritime SAVEs Manual.

D. Federal Program Change. Regional Administrators shall advise State designees of the action required by this instruction and encourage their participation in the SAVEs program. In addition, the States shall be invited to submit suggestions for additions, deletions or revisions to the SAVEs.

OSHA Instruction STD 2.2

July 3, 1989

Subject: Carriage of Automobiles in Containers

A. Purpose. This instruction provides guidance on the application of 29 CFR 1917.71 (b)(4) and (b)(5), and 1918.85(b)(3) (b)(4), and (b)(5) to open and closed top dry van containers carrying automobiles which are loaded at marine terminals.

B. Scope. This notice applies OSHA-wide.

C. Action.

1. Section 1917.71(b)(5) and Section 1918.85(b)(3) exempt open type vehicle carrying containers from several requirements excluding Section 1917.71(b)(4), and Sections 1918.85(b)(4) and (b)(5), respectively. The requirements of these three sections pertain to the weighing/weight-calculations of outbound containers with a load consolidated at the marine terminal.

2. The reason for this exception is that it is well known in the industry that the maximum weight of the vehicles carried in an open type vehicle carrying container does not come close to the maximum cargo weight the container is capable of carrying. The exception refers only to open type vehicle carrying containers because these are specifically built to carry vehicles. However, closed dry van containers are also used to carry vehicles. The reasons for the exception in favor of open type vehicle carrying containers apply as well to open and closed top dry van containers carrying vehicles. Therefore, the exemption applies also to the latter configurations as well, provided that:

- a. The container carries only completely assembled vehicles and no other cargo.
- b. The container is marked on the outside in such a manner that an employee can readily discern that the container is carrying vehicles.
- c. The automobiles were loaded into the container at the marine terminal.

D. Federal Program Change. This instruction describes a Federal program change which affects State Programs. Each Regional Administrator shall:

1. Ensure that this change is forwarded to each State Designee.
2. Explain the technical content of the change to the State designee as requested.
3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.
4. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel.

E. Background. This interpretation was originally issued on December 21, 1972, under OSHA Program Directive #100-18 which was renumbered as STD 2-1.3, on October 30, 1978. STD 2-1.3 was subsequently canceled on December 29, 1981, by OSHA Notice ADM 8. Upon reviewing the cancellation notice and the mentioned safety standards, it was determined that the original interpretation had merit, therefore, reinstated.

RECORD ID**1466**

STANDARD NUMBER
INFORMATION DATE**1917.1; 1926.1; 1910.1**
830906

ABSTRACT

An interpretation on applicable standards for bulk coal handling facility at a marine terminal. The regulations for marine terminals excludes fully automated coal handling operations that have only one employee located in a control booth. General industry standards cover maintenance work 29 CFR 1910. When the marine terminal is not fully automated 29 CFR 1917 applies to all operations until the cargo is either stored or conveyed for immediate consumption.

INTERPRETATION**29 CFR 1917.1; 1926.1; 1910.1****September 6, 1983**

Thank you for your letter of August 3, in which you discuss your organization's concern with the coverage provided in the Occupational Safety and Health Administration's (OSHA) rule for marine terminals (29 CFR 1917). I am pleased to respond to your specific questions.

The intent of this Agency in its exclusion of "fully automated" coal handling operations contiguous to electrical power generating stations was to provide coverage for employees who were in fact exposed to the hazards of cargo handling operations and delete applicability to operations that had only one employee sitting in a control booth overlooking the loading or discharging activity. The terms of this exclusion are quite plain and concisely explained in the preamble of the final rule (48 FR 30891).

When employees perform maintenance work at marine terminals on fully automated equipment, the general industry standards (29 CFR 1910) are applicable. If employees are engaged in work other than operating automated systems from a control booth or similar station, and that work is, in fact, comprised of the loading or discharging of a commodity to or from a vessel, the operation could not be deemed to be "fully automated." As such the marine terminals standard (29 CFR Part 1917) would apply. Of course the construction industry standards (29 CFR Part 1926) would apply in some instances of terminal upkeep and repair.

As to when or where the determination is made relative to whether a bulk coal handling facility contiguous to an electrical generating plant is fully automated, we must maintain that that decision will be arrived at by our compliance staff on a case by case basis. That decision will be predicated upon the number of employees conducting the actual movement of cargo. In order to retain its exemption, a "fully automated" facility must have no more than one employee conducting the cargo transfer operation and that employee would ordinarily be stationed in a control booth overlooking the operation.

When a bulk coal handling facility at a marine terminal is not "fully automated" 29 CFR Part 1917 applies to all of the operations until that cargo is either stored or conveyed for immediate consumption. When that cargo is stored or conveyed for immediate consumption 29 CFR Part 1910 becomes applicable. While that cargo is being conveyed to storage 29 CFR Part 1917 continues to apply.

Relative to the "informal discussions" OSHA had taken part in with the institute, please be aware that the subject discussions took place in the form of one telephone call initiated by institute. The dialogue of that call was purely a question and answer format in that institute was not certain at that point as to OSHA's intention to include or exclude their membership's coal handling facilities that bordered on navigable waters. During that conversation the OSHA representative clarified the intent of the agency and nothing more.

No comments submitted by any party or organization after the formal closing of the rulemaking record were given consideration to the formulation of this standard. Any group or individual had until the date of the

formal closing of the record (September 21, 1982) to submit comments. I am very confident that ample time was extended to all concerned interests to express their opinions.

It is important to keep in mind that no worker will go without coverage. At "fully automated" facilities the provisions of OSHA's General Industry Standards (29 CFR 1910) will continue to apply. At those facilities that operate in a more conventional manner the newly issued Marine Terminals rule will apply.

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DOE Interpretations Guide to OSH Standards

July 1, 1992

OSHA Instruction CPL 2.32A CH-2

APRIL 19, 1993
Office of General Industry
Compliance Assistance

SUBJECT: Changes to the Maritime Standard Alleged Violation Elements (SAVEs) Manual

- A. **PURPOSE.** This instruction transmits revised and new pages to the Maritime SAVEs Manual for Hazard Communication.
- B. **SCOPE.** This instruction applies OSHA-wide.
- C. **ACTION.** Regional Administrators and Area Directors shall ensure that all compliance personnel:
1. Make the following page changes to the Maritime (SAVEs) Manual:

Remove Pages	Insert Pages
87-88	87 through 87.1
87.2 through 87.17	
87.18 through 88	
147-148	147 through 147.1
147.2 through 147.17	
147.18 through 148	
317-318	317 through 318
318.1 through 318.18	
 2. File a copy of this transmittal sheet behind OSHA Instruction CPL 2.32A CH-1 in the appropriate OSHA Directives System binder.
- D. **BACKGROUND.** Parts 1915, 1917, and 1918 were amended by revising 29 CFR 1910.1200 and by adding 1915.99, 1917.28, and 1918.90 to contain the identical text of the revised 1910.1200, including Appendices A, B, C, and D of 1910.1200, as published in the Federal Register, Vol. 52, No. 163, on August 24, 1987.

The remainder of this compliance directive has not been included due to the number of pages it contains. Users requesting this compliance directive or further assistance may contact Federal or State OSHA offices. The DOE OSH Standards Interpretations Response Line is also a valuable resource of information and may be contacted at 1-800-292-8061, Monday - Friday, 8:00 a.m. - 4:00 p.m. EST.

OSHA Instruction STD 2-1.8

October 30, 1978

October 8, 1973

OSHA PROGRAM DIRECTIVE #100-26

Subject: Responsibility Under 29 CFR 1918 for Compliance Affecting Equipment Used, but Not Owned by, or Under the Control of the Employer

- 1. Purpose.** To provide guidance on the application of Part 1918 in subject circumstances.
- 2. Background.** In order to avoid any tendency to misinterpret the means of application of the regulations of Part 1918, there is a need to restate responsibilities and the procedure to be followed.
- 3. Interpretation**
 - a.** If the equipment of a vessel or other equipment or facilities to be used by an employer, but not owned by the employer or under his control, does not meet the requirements of Part 1918, it is the responsibility of the employer not to permit his employees to utilize such equipment or facilities. He is in violation if, and only if, he does permit his employees to utilize such equipment or facilities.
 - b.** It is not the responsibility of the employer under Part 1918 to effect corrections of any such deficiencies himself, but this does not relieve him of his duty to use only equipment which meets the requirements of Part 1918.
- 4. Effective Date.** This instruction is effective immediately, and will remain in effect until canceled or superseded.

OSHA Instruction STD 2-1.9

OCT 01, 1990

Office of Construction and Maritime Compliance Programs

SUBJECT: HAZARD ALERT

Use of 4 x 29 Wire Rope as Cargo Runner (Hoisting Wire) for Loading/Discharging Cargo in the United States.

A. Purpose. This instruction issues a HAZARD ALERT for 4 X 29 classification wire rope having a 1-1/4-inch (1.25-inch) outside diameter (O.D.) used as a cargo runner (hoisting wire).

B. Scope. This instruction applies OSHA-wide.

C. References. The following OSHA Maritime standards and instruction are applicable:

1. OSHA Maritime Standards, 29 CFR Part 1918--Longshoring.

a. Subpart F--Ship's Cargo Handling Gear, 29 CFR 1918.51, General requirements; and

b. Subpart G--Cargo Handling Gear and Equipment other than Ship's gear, 29 CFR 1918.74, Cranes and derricks other than vessels gear.

2. OSHA Instruction STP 2.22A, CH-3, February 27, 1990, the State Plan Policies and Procedures Manual.

D. Action. Regional Administrators and Area Directors shall ensure that compliance officers conducting maritime inspections:

1. Ensure that 4 x 29 wire rope, 1-1/4-inch O.D., which is used for loading or discharging cargo in the United States, is being used with a minimum of 64.0-inch diameter sheaves, rollers drums, and/or blocks. The 4 x 29 wire rope shall not be used if such configuration arrangements are not met.

2. Issue citations citing 29 CFR 1918.51(b) for shipboard cargo handling gear installations, and 29 CFR 1918.74(a)(8) for shore-based material handling devices, if they observe 4 x 29 wire rope, 1-1/4-inch O.D., being used with sheaves, rollers, drums, and/or blocks that are less than 64.0 inches in diameter.

E. Federal Program Change. This instruction describes a Federal Program Change which affects State Programs. Each Regional Administrator shall:

1. Ensure that this change is promptly forwarded to each State designee, using a format consistent with the Plan Change Two-Way Memorandum in Appendix P, OSHA Instruction STP 2.22A, CH-3.

2. Explain the technical content of this change to the State designee as requested.

3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing to the Regional Administrator as soon as the State's intention is known, but not later than 70 calendar days after the date of issuance (10 days for mailing and 60 days for response). This acknowledgement must include a description either of the State's plan to follow the guidelines in Paragraph D., Action, to implement the change, or the reasons why this change should not apply to that State.

OSHA Instruction STD 2-1.9(cont.)

4. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State compliance personnel.

F. Background:

1. It has been brought to OSHA's attention that a potentially dangerous hazard exists when 4 x 29 wire rope is used for the purpose of loading or discharging cargo. This 4 x 29 wire rope is being used as replacement rope for cargo handling gear originally designed for use with wire rope of 6 x 37 classification. Failures resulting from the use of the 4 x 29 wire rope have been reported to have occurred on at least 10 occasions in the past 2 years. Reported failures of the 4 x 29 wire rope include:

- a. In February 1987, a 4 x 29 wire rope from the M.V. KAKUSHIMA failed when loading 20 tons of logs. A similar failure occurred on the M.V. SANKO VENUS when a cargo of logs was dropped into the Number 1 hold.

- b. In April 1988, the M.V. HELLESPOND VANGUARD experienced a sudden failure at the Number 1 hold resulting in a load of logs being dropped onto the dock.

- c. In March 1990, the M.V. PUFF (ex. KORYU MARU) experienced a failure while loading logs. A 4 x 29 cargo hoisting wire failed dropping a load of logs about 3 feet into the hold.

2. In April 1990, one of the manufacturers of the 4 x 29 wire rope recommended using a 4 x 10-type wire rope in lieu of 4 x 29 wire rope in cargo handling applications because it was considered to be more "adaptable in various cargo handling works."

3. The 4 x 29 wire rope has an added stiffness factor due to its construction which makes it less flexible than "conventional" wire rope (normally 6 x 37 classification) used as cargo runner/hoisting wire. The nature of previous failures and subsequent laboratory examinations confirm that visual inspections are unreliable since failure starts on the inner wires of the stands and, therefore, cannot be detected by normal field inspection methods. Large diameter sheaves, rollers, drums and blocks will compensate for the higher stiffness of this particular wire rope.

4. The Canadian Coast Guard issued a Ship Safety Bulletin, dated September 29, 1989, advising that 4 x 29 "Sun wire ropes are not to be used in Canada on any shipboard lifting appliances. This bulletin noted that "Sun" wire ropes (4 x 29) are considerably less flexible than the more common six stranded construction wires and there was an added danger in that they are difficult to inspect visually since the known deficiencies are not visible externally.

G. Rope Description.

1. This 4 x 29 wire rope is a galvanized 32 mm (1-1/4-inch) four strand, left-hand regular lay. Safe working load is 34,500 pounds. The component wires are as follows:

- (a) core wire-4.0 mm (.157 in) 7 inner wires -3.0 mm (.118 in) 7 filler wires -1.4 mm (.055 in) 14 outer wires -2.3 mm (.090 in).

- (b) Fatigue failure of the 4 mm and 3 mm inner component wire occur prior to failure of the outside wires of the strand which are of smaller diameter and do not fail as easily. Therefore, the external appearance of the 4 x 29 wire rope is satisfactory, even though the strength of the wire is seriously reduced due to the early failure of the inner wires.

H. Test Results. Sections of failed 4 x 29 wire ropes were examined and tested by different laboratories. The conclusions are as follows:

OSHA Instruction STD 2-1.9(cont.)

- 1. Failure occurred due to 4 x 29 inner wire fatigue fractures.**
- 2. The sheaves, rollers, drums and blocks used were too small (26-34 inches in diameter) for use with 4 x 29 wire rope.**
- 3. Failure mode is due to a lack of 4 x 29 wire rope flexibility.**
- 4. This 4 x 29 wire rope is very difficult to inspect in the field by employers and stevedores.**

RECORD ID

4213

**STANDARD NUMBER
INFORMATION DATE**

1918.12; 1918.12(a); (b); (c); (Appendix I); 1918.51(a)
910321

ABSTRACT

OSHA notification procedures on ship cargo gear are adequate. OSHA Forms 71 and 72 were not intended to be used to notify the OSHA area offices as to a ship's cargo gear, not even to notify OSHA as to the defectiveness of gear found aboard a vessel. It is a ship's register that has long been recognized and used as the main source of information about its cargo gear. Under 29 CFR 1919, an accredited person must do the following: inform the nearest OSHA area office whenever a register has been issued; send a copy of each certificate relating to unit test or thorough examinations to the local office of the administration within 10 days; and notify the nearest District Office of the circumstances in the event deficiencies remain uncorrected and no certification may be issued. As an additional safeguard against the use of defective ship gear, an employer is not to use a vessel's cargo handling gear until the vessel has a current, valid cargo gear register and certificates in substantial accordance with International Labor Office recommendations, which indicate that the cargo gear has been tested, examined and heat-treated. At the present time, 11 OSHA-accredited agencies have authority to make entries in a ship's register and to certify a ship's cargo handling gear. Use of OSHA 72 Forms would only cause confusion.

INTERPRETATION

29 CFR 1918.12; 1918.12(a); (b); (c); (Appendix I); 1918.51(a)

MAR 21 1991

MEMORANDUM

SUBJECT: Issuing OSHA Form 72's for Defective Gear Found Aboard Vessels.

This is in response to your December 4, 1990 memorandum recommending a policy change requiring that OSHA 72 Forms be issued, when necessary on vessels, as a means of prompt notification to the OSHA area offices.

The OSH Forms 71 and 72 were never intended for the certification of vessels' cargo gear. The 29 CFR 1919 Regulations are clear in addressing certification of vessels' cargo gear. The ship's register with any attached certificates or entries has long been recognized as the main source of checking the condition of a vessels' cargo gear.

In reference to notification of the OSHA area offices, 29 CFR 1919.11(e) requires the accredited person to inform the nearest local office whenever a register has been issued. 29 CFR 1919.11(f) requires the accredited person to send a copy of each certificate relating to unit test or thorough examinations to the local office of the administration within 10 days. 29 CFR 1919.10(c) requires the accredited person to notify the nearest District Office of the circumstances in the event deficiencies remain uncorrected and no certification may therefore be issued.

At the present time, there are only eleven OSHA accredited agencies that have authority to make entry's in the ships register and to certificate Ship's Cargo Handling Gear. The eleven OSHA accredited agencies are:

1. ABS & ABS Worldwide Technical Services Inc.
2. Aamica Services
3. Billstein, Herbert and Associates, Ltd.
4. Bureau Veritas (French)
5. Grant, Arther A. and Son, Inc.
6. International Cargo Bureau, Inc.
7. Lloyds Register and Lloyds Technical Services

8. National Cargo Bureau, Inc.
9. Newport News Industrial Corporation
10. Nippon Kaiji Kyokai (NKK)
11. Phillyship

If any of these agencies are not following the notification requirements in the regulations, please notify this office. No other OSHA accredited agencies have any certification authority on ships.

As an additional safeguard against the use of defective ships gear, 29 CFR Part 1918.12, Gear Certification, clearly defines the employer's responsibilities in reference to vessel's cargo gear.

1918.12 Gear Certification.

The employer shall not use the vessel's cargo handling gear until he has ascertained that the vessel has a current and valid cargo gear register and certificates which in form and content are in substantial accordance with the recommendations of the International Labor Office, as set forth in Appendix I of this part, and as provided by International Labor Organization Convention No. 32, and which indicates that the cargo gear has been tested, examined and heat treated by or under the supervision of persons or organizations defined as competent to make register entries and issue certificates pursuant to paragraphs (c) and (d) of this section.

Please Note, there is specific reference to the cargo gear register and related certificates in accordance with the International Labor Office Recommendations. This standard makes no reference to OSHA Forms 71 and 72.

29 CFR, Part 1918.51 places two additional responsibilities on the Longshore employer:

- (a) Not to exceed the safe working load as specified in the cargo gear certification papers.
- (b) Not to use any cargo handling gear which is visibly unsafe until made safe.

We believe OSHA notification is adequately addressed in the 1919 Regulations and that requiring that OSHA 72 Forms be issued for vessels cargo handling gear would only result in confusion.

OSHA Instruction CPL 2-1.17

August 30, 1982

Subject: 29 CFR 1918.32(b) Stowed Cargo and Temporary Landing Platforms--Application to Containers Stowed on the Decks of Vessels

- A. Purpose.** This instruction provides national guidelines for enforcing 29 CFR 1918.32(B) As it applies to falling hazards from working on containers stowed on the decks of vessels.
- B. Scope.** This instruction applies OSHA-wide.
- C. Action.** OSHA Regional Administrators/Area Directors shall use the guidelines and procedures set forth in G of this instruction.
- D. Federal Program Change.** This instruction describes a Federal Program Change which affects State programs. Each Regional Administrator shall:
 - 1. Ensure that this change is forwarded to each state designee.
 - 2. Explain the technical content of the change to the State designee as requested.
 - 3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.
 - 4. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections and case file reviews) shall also be used to determine if this change has been implemented in actual performance.
- E. Explanation.**
 - 1. Worldwide container standardization is accomplished under the International Standards Organization (ILO), TC-104 Committee. National standardization is controlled by the MH-5 Committee of the American National Standards Institute (ANSI). The Office of Maritime Standards has a representative on these committees.
 - 2. To date, there is no overall workable means to protect longshoremen in all instances of exposure. Maritime associations and stevedore companies, both in the United States and other maritime nations, are researching and experimenting with various methods of protection. OSHA will monitor new developments through its committee activity.
 - 3. The following examples illustrate partial protective means that have been used.
 - a. Nets are sometimes a workable solution, however, the act of rigging nets and removing them may well expose employees to falling hazards.
 - b. One company has installed "D" rings on its containers. The employee can hook his safety belt line to the "D" ring which will provide protection while he is on top placing or removing the cones, lashing or unlashings.
 - c. Some companies have designed special manlift cages that fit the spreader bars of container cranes. These cages have a bar to which employees can attach their safety belt lifelines to protect them as they work on the cones or lashings.

OSHA Instruction CPL 2-1.17 (cont.)

- d. Some vessels have been designed with "stacking frames." Vessels equipped with such frames eliminate the need for employees to go to the tops of containers.**
- e. Various employers have provided 20-foot hand poles, designed to lock the container corners from below, thus not requiring employees to leave the deck.**
- f. 29 CFR 1918.32(b) can be considered a performance standard. Any protection from falling for employees working on top of containers which the ingenuity of the industry can provide is acceptable.**

F. Guidelines and Procedures.

The subject standard is:

- 1. "1918.32 Stowed cargo and temporary landing platforms.**

(b) When an edge of a hatch section or of stowed cargo more than 8 feet high is so exposed that it presents a danger of an employee falling, the edge shall be guarded by a safety net of adequate strength to prevent injury to a falling employee, or by other means providing equal protection under the existing circumstances."

- 2. The Occupational Safety and Health Review Commission on October 24, 1979, (OSHRC Docket No. 15242) ruled that containers stowed on the deck of vessels fit the term "stowed cargo" as stated in 29 CFR 1918.32(b). The following language is taken from this decision:**

"There is no practical difference for safety purposes between working on top of cargo which is on deck and cargo below deck; thus, storage on deck is included in the term "stow" as it is used in the standard. Similarly, cargo containers fall within the category of "cargo" for the purpose of the standard because employees working on top of containers face the same hazards as employees working on top of other cargo of the same size."

- 3. Longshoremen shall be protected from the hazard of falling when they are working over 8 feet high on or around containers stowed on the decks of vessels.**
- 4. When the employer has a means of protecting employees such as illustrated in E.3 of this instruction, or other means available to the employer that are not being used; then a proposed violation of 29 CFR 1918.32(b) shall be issued. The CSHO shall note the circumstances, the number of employees exposed and indicate in the report and on the citation the feasible means of protection available to the employer.**
- 5. If, in the opinion of CSHO, the employer does not have a feasible means of protecting the employee, the hazard shall be brought to the attention of the employer. A violation should not be issued; however, OSHA should recommend and encourage the employer to work toward a solution and assist the employer in every way possible to effect a means of protection by advice, consultation and dissemination of information obtained during other inspections.**

RECORD ID 1275

STANDARD NUMBER 1918.32(b)
INFORMATION DATE 830214

ABSTRACT An interpretation regarding the applicability of deck stowage of 1918.32(b). Instruction CPL 2-1.17 is correct in including storage on deck in the term "stow" as used in the standard. The interpretation letter gives rationale to support the applicability.

INTERPRETATION 29 CFR 1918.32(b)

February 14, 1983

Thank you for your letter of January 20, 1983, requesting reconsideration and withdrawal of OSHA Instruction CPL 2-1.17, regarding the applicability to deck stowage of 29 CFR 1918.32(b).

The contents of your letter and enclosures indicate that you are knowledgeable of the history and background concerning this standard from its inception. Regardless of the intent, when written, the in-depth research of my staff in preparation for writing CPL 2-1.17 was thorough. What transpired before 1979 in regard to the standard being applicable to under deck stowage only was taken into consideration. However, in rebuttal to the rationale to the standards applicability, the Division of Maritime Programming noted the following:

1. OSHRC's decision dated October 24, 1979, states in part that stowage on deck is included in the term "stow" as is used in the standard. Similarly, cargo containers fall within the category of "cargo" for the purpose of the standard.
2. To further substantiate that deck loads are considered as stowed cargo, the Division referred to the publication "Marine Cargo Operations" by Captain S, USNR Master Mariner, Chief Cargo Section, Department of Mariner, Chief Cargo Section, Department of Maritime Science, U.S. Naval Academy; 2nd Printing September 1962. Publisher John Wiley and Sons. Numerous passages in this book, Chapters 4 and 5 specifically note cargo stowage on deck, such as Deck Load Capacities. "...a given cargo can be stowed on a given deck..." Block type plan--stowage plan shows cargo segregated in cargo hold and on deck.
3. The judge an error in ruling that an employer did not violate 29 CFR 1918.32(b) stowed cargo requirements, by failing to require employees standing on top of three 8-foot high cargo containers...to tie off to D rings welded to the tops of containers, on the grounds the standard did not apply to work performed above deck. (Review Commission's decision dated October 24, 1979.)
4. Employees were provided with safety belts and lanyards which were not used. Their use would have provided protection equal to that which nets could provide.

It was concluded that storage on deck is included in the terms "stow" as it is used in the standard.

OSHA Instruction CPL 2-1.17 dated August 30, 1982, Office of Compliance Programming, will remain in effect. However, consideration will be given your request. I have forwarded your letter and a copy of my reply to the Directorate of Safety Standards Programs. Consideration will be given to your suggestions when a revision of the various longshore regulations (29 CFR 1918) is undertaken. The work on this revision will be initiated immediately upon conclusion of the rulemaking for marine terminals.

OSHA Instruction STD 2-1.4A

NOV 2, 1979

SUBJECT: 29 CFR 1918.74(a)(9), Crane Load Indicating Device

- A. Purpose.** This instruction clarifies whether the revocation of the crane load indicating device requirement from the Construction standards affects the Maritime standards.
- B. Scope.** This instruction applies OSHA-wide.
- C. Cancellation.** OSHA Instruction STD 2-1.4, December 29, 1972, , is canceled.
- D. Action.** OSHA Regional Administrators and Area Directors shall ensure that the applicability of 29 CFR 1918.74(a)(9) is consistent with the guidelines set forth in paragraph F. of this instruction.
- E. Federal Program Change.** This instruction describes a Federal program change which affects State Programs. Each Regional Administrator shall:
 - 1.** Ensure that this change is forwarded to each State designee.
 - 2.** Explain the technical content of the change to the State designee as requested.
 - 3.** Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.
 - 4.** Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections and case file reviews) shall also be used to determine if this change has been implemented in actual performance.
- F. Guidelines.** The revocation of the crane load indicating device requirement from the Construction standards does not affect the requirement of the longshoring regulations, 29 CFR 1918.74(a)(9). This regulation is in effect and shall be enforced in the stevedoring industry.

RECORD ID

2131

STANDARD NUMBER
INFORMATION DATE

1918.74(a)(9)(ii)
751014

ABSTRACT

An interpretation on accuracy requirements for crane load indicating devices in 1918.74(a)(9)(ii). A response to a request for variance from Section 1918.74(a)(9)(ii), Cranes and Derricks Other Than Vessel's Gear, load indicating or alternative devices. A de minimis notice may be issued for cranes that do not meet the accuracy requirements for crane load indicating devices but there is compliance with the intent of the standard and the deviation from strict compliance does not affect safety and health.

INTERPRETATION

29 CFR 1918.74(a)(9)(ii)

October 14, 1975

This is in response to your letter dated September 3, 1975, concerning your previous request for variance from Section 1918.74(a)(9)(ii) Cranes and Derricks Other Than Vessel's Gear, of the Occupational Safety and Health Standards.

In our letter to you dated May 29, 1973, it was pointed out that only an employer or class of employers may obtain a variance. Since you lease the subject cranes to various stevedores, you, as a lessor, are ineligible to apply. This requirement is delineated in 29 CFR 1905.11(a) (copy enclosed).

Section 1918.74(a)(9) requires, in part, that all cranes used to load or discharge cargo into or out of a vessel shall be fitted with a load indicating or alternative device. The accuracy of the load indicating device, weight-moment device, or overload protection device shall be such that any indicated load (or limit), including the sum of actual weight hoisted and additional equipment or "add-ons" such as slings, sensors, blocks, etc., is within the range from no less than 95 percent of the actual true total load (5 percent overload) to 110 percent of the actual true total load (10 percent underload). Such accuracy shall be required over the range of the daily operating variables to be expected under the conditions of use.

You have stated that the crane in question, is limited to a maximum lift of 35 tons whether load is applied to either hook or both. The crane is supplied with a controlled torque coupling which prevents the hoist from lifting an overload. This device provides accuracy within +/- ten percent of the load setting. This deviates from the requirement of + five to - ten percent. It does meet all other requirements of Section 1918.74.

You further state that the crane manufacturer has stated that the additional 5 percent overload is within the safe working limits of the designed allowable loads. In addition, bridge type cranes such as yours, are subject to a periodic 25 percent overload for quadrennial recertification.

After reviewing your application it appears that a variance will not be necessary in this instance. The Office of Standards Development plans to modify this standard to permit a plus or minus 10 percent factor on cranes of this type. A Program Directive has recently been issued to provide guidance to the OSHA field offices concerning the use of de minimis notices. A de minimis notice may be issued in a situation where there is not strict compliance with a standard, but where the intent of the standard is being complied with and the deviation from strict compliance does not affect safety and health in this specific instance. A de minimis notice carries no penalty and requires no abatement.

It would appear after studying your application and discussion with our Houston Area Office that your situation would meet the criteria for de minimis notice. Therefore, no further action will be taken on your request for variance from Section 1918.74(a)(9)(ii).

OSHA Instruction STD 2-1.7

October 30, 1978

February 5, 1973

OSHA PROGRAM DIRECTIVE #100-21

Subject: The meaning of 29 CFR 1918.74(a)(9)(viii)(d)

- 1. Purpose.** To provide guidance on the meaning of Section 1918.74 (a)(9)(viii)(d).
- 2. Background.** This standard has been erroneously interpreted to mean that if a crane is used exclusively to handle loads of less than 11,200 pounds, the load indicating device requirements of Section 1918.74(a)(9) do not apply.
- 3. Interpretation.** The regulation, section 1918.74(a)(9)(viii)(d), means that all of the following conditions must be met before a crane can avoid the requirements for a load indicating device:
 - a.** The crane must be used exclusively to handle cargo or equipment the total actual gross weight of which is known by means of marking of the unit or units hoisted;
 - b.** Such total actual gross weight must never exceed 11,200 pounds; and
 - c.** 11,200 pounds is less than the rated capacity of the crane at the maximum outreach that is possible under the conditions of use at the time.
- 4. Effective Date.** This instruction is effective immediately, and will remain in effect until superseded or cancelled.

RECORD ID 1407

STANDARD NUMBER 1918.74(a)(9)(viii)(d)
INFORMATION DATE 760305

ABSTRACT An interpretation letter regarding clarification on maximum allowable load limits for cranes. Cranes with capacities less than 11,200 pounds require a load indicating device, unless the crane outreach is restricted resulting in a capacity equal or higher than 11,200 pounds as determined in 1918.74(a)(9)(viii).

INTERPRETATION 29 CFR 1918.74(a)(9)(viii)(d)

March 5, 1976

This is in reply to your letter dated January 15, 1976, to the Assistant Secretary of Labor for Occupational Safety and Health regarding clarification of 29 CFR 1918.74.

The 11,200 pound limit was requested by industry comment on a proposed regulation, and was based on the fact that regular ships cargo handling gear is generally rated at 5 long tons which is the maximum allowable load at any position of the boom.

Unlike ships conventional cargo gear (derricks) shoreside cranes will have variable ratings ranging from a low rating at maximum outreach and highest rating at minimum outreach.

Cranes rated over 11,200 pounds (5 long tons) at maximum possible outreach lifting known marked weights not exceeding 11,200 pounds are exempt from the requirement provided the other conditions as noted in section 1918.74(a)(9)(viii)(d) are met. All other cranes with rated capacities of less than 11,200 pounds at maximum possible outreach would not be exempt, even though they may be lifting loads less or equal in weight to the rated capacity at maximum outreach. OSHA Program Directive No. 100-21 dated February 5, 1973, notes an exception, should the "Conditions of Use at the Time" restrict the outreach of the crane to an intermediate or minimum outreach resulting in a lifting capacity equal to or higher than 11,200 pounds. No load indicating device would be required in this situation only.

RECORD ID 1420

STANDARD NUMBER 1918.74(a)(6)
INFORMATION DATE 750509

ABSTRACT An interpretation letter discussing the counterweight requirements they apply to cranes but not to trucks or carriers. The Cranes and Derricks standard applies to the crane and the only truck or carrier used to transport the crane is covered by the standard, therefore, extra counterweights may be used to stabilize the assembly without concern of noncompliance with (a)(6).

INTERPRETATION 29 CFR 1918.74(a)(6)

(Date unreadable)

The Assistant Secretary has asked me to respond to your letter dated May 9, 1975, requesting a permanent variance from Section 1918.74(a)(6) Cranes and Derricks Other Than Vessel's Gear of the Maritime Safety and Health Regulations.

The requirements of the above standard are that no counterweights in excess of manufacturer's (or design) specifications shall be fitted. All equipment shall be used in accordance with manufacturer's (or design) specifications and recommendations.

You have stated that you are operating mobile cranes with counterweights attached to the truck or carrier portion of the assembly but not on the crane portion. The need for these counterweights is to stabilize the assembly when traveling with the boom attached.

A careful study has been made of your request and we have concluded that the requirements of the standard apply to the crane and not to the truck or carrier. The purpose of the prohibition in this standard is to insure that the manufacturer's (or design) load limits are not exceeded. It would appear that your use of counterweights on the truck is not within the scope of Section 1918.74(a)(6), therefore, a variance is not required.

No further action will be taken on your request for variance.

RECORD ID 2296

STANDARD NUMBER 1918.106(a)
INFORMATION DATE 851220

ABSTRACT An acceptable immediate abatement to a hazardous condition (drowning) on barges is the wearing of life vests by stevedores.

INTERPRETATION 29 CFR 1918.106(a)

DEC 20, 1985

This is in response to your letter of October 31, on behalf of Mr. H, President of (Company A). We apologize for the delay in responding to your inquiry, but thought it best to have the definitive action taken by the (City) Regional Office, to correct the misunderstanding of the employer, included in our letter.

On November 26, Mr. D of Mrs. B's (State) staff met with Mr. L, (City) Area Director, the Vice President of (Company A), and the President of (Company B). (stevedore) to discuss methods and cost of abating a hazardous condition on the barges owned by the container line. An acceptable immediate abatement method (use of life vests by stevedores) was agreed to. The container line also agreed to reassess its position on installation of railings based on the technical and cost information supplied by the area office.

On November 22, Mr. K of your staff met with the Area Director and Regional Administrator in (City) to discuss this same topic.

SOURCE LETTER

OCT 24, 1985

On October 23rd, OSHA visited one of our vessels at (City) Marine Terminal and have made a demand to the stevedores that we install railings around the perimeter of my four barges. The cost for something like this is approximately \$30,000.00 per barge. Needless to say, I would prefer not to spend the money, especially since as a practical matter the railings will be torn off at each loading. This is primarily due to the type of cranes that are at the marine terminals that my vessels call. Originally, some of my barges had railings. They have subsequently been torn off by the loading process employed at most state run marine terminals. If I had to install these railings, I would have to constantly repair and or replace them at most terminals on each voyage.

It seems that they are unwilling to listen to me about this problem.

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DOE Interpretations Guide to OSH Standards

July 1, 1992

AIM

Association for Information and Image Management

1100 Wayne Avenue, Suite 1100
Silver Spring, Maryland 20910
301/587-8202

Centimeter

Inches

MANUFACTURED TO AIM STANDARDS
BY APPLIED IMAGE, INC.

5 of 9

RECORD ID 92061501

STANDARD NUMBER 1926.21(b)(6)(ii); 1910.146(b); 1926.651(g); 1926.650(App. A)(d)(2)(ii)
INFORMATION DATE 19920615

ABSTRACT

This letter responds to a request for interpretations of OSHA's requirements addressing soil testing 1926.650 and confined spaces 19. While the discussion of the thumb penetration test in Appendix A addresses only the characteristics of types "A" and "C" soils, type "B" soil would fall in between the characteristics given for types "A" and "C" soils. Type "A" soils can be readily indented by the thumb, but can only be penetrated with great effort. Type "C" soils can be easily penetrated by the thumb. Extrapolation of these characteristics results in a finding that type "B" soils can be penetrated with moderate effort. In regard to whether a manhole that is part of a storm sewer, is considered to be a confined space. Many manholes have limited means of egress and are subject to the accumulation of toxic or flammable contaminants or oxygen deficiency. They must be considered confined spaces.

INTERPRETATION

29 CFR 1926.21(b)(6)(ii); 1910.146(b); 1926.651(g); 1926.650(App. A)(d)(2)(ii)

June 15, 1992

Dear Mr. K:

This is in response to your May 5 letters requesting interpretations of Occupational Safety and Health Administration (OSHA) requirements addressing soil testing and confined spaces.

In regard to whether a thumb penetration test as described in Appendix A to Subpart P can be used to determine type "B" soil, please be advised that the thumb penetration test can be used as a test to determine type "B" soil. While the discussion of the thumb penetration test in Appendix A addresses only the characteristics of types "A" and "C" soils, type "B" soil would fall in between the characteristics given for types "A" and "C" soils. Type "A" soils can be readily indented by the thumb, but they can only be penetrated with great effort. Type "C" soils can be easily penetrated by the thumb. Extrapolation of these characteristics results in a finding that type "B" soils can be penetrated with moderate effort.

In regard to whether a manhole that is part of a storm sewer, not connected to a raw sewage line, is considered to be a confined space, please be advised that many manholes have limited means of egress and are subject to the accumulation of toxic or flammable contaminants or oxygen deficiency. Therefore, they must be considered confined spaces. Even though the manhole in your example is part of a storm sewer and not connected to a raw sewage line, it would still have the potential to accumulate toxic or flammable contaminants that might be washed in during rain storms; and, therefore, the atmosphere in any such space must be tested before an employee enters it.

In regard to whether OSHA would consider an enclosed area that is subject only to having a limited means of access to be a confined space, please be advised that it would be dependent on each situation. For example, a trench could be considered an enclosed area; but, since it would usually be subject to natural ventilation, it would not be considered a confined space unless other factors, such as those addressed in 29 CFR 1926.651(g), are present. On the other hand, because limited means of access implies a potential for an oxygen deficient atmosphere, other types of enclosed areas would be considered confined spaces.

If we can be of any further assistance, please contact Mr. R. G. or Mr. D. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523- 8136.

SOURCE LETTERS

May 5, 1992

Dear R,

The National Utility Contractors Association is developing a Construction Confined Space Entry program and we would like to make sure we clearly define "confined space" as defined in 1926.21(6)(ii) and in the Proposed Rule 1910.146.

"1926.21(6)(ii) ...confined or enclosed space means any space having limited means of egress, which is subject to the accumulation of toxic or flammable contaminants or has an oxygen deficient atmosphere. Confined or enclosed space include, but are not limited to, storage tanks, process vessels, bins, boilers, ventilation or exhaust ducts, sewers, underground utility vaults, tunnels, pipelines, and open top spaces more than 4 feet in depth such as pits, tubs, vaults, and vessels."

1. Would a manhole that is part of a storm sewer, not connected to a raw sewage line, be considered a confined space? If yes, what if the atmosphere in the space was tested before entry?
2. Would OSHA consider an enclosed area that is subject only to having a limited means of egress a confined space?

Thank you for your assistance.

RECORD ID

92092101

STANDARD NUMBER
INFORMATION DATE

1926.21(b)(2); 1926.54(a)
19920921

ABSTRACT

This letter responds to a request for information about OSHA's training requirements for the use of Level 1 lasers. Although paragraph 1926.54 (a) requires employees assigned to install, adjust, and operate laser equipment (including Level 1 type lasers) to be trained, there are no additional specific OSHA regulations that indicate what training is necessary. However, OSHA has interpreted that the general safety training and education requirements of 1926.21(b) do apply. There are minimum safety and health training requirements for laser equipments operators.

INTERPRETATION

29 CFR 1926.21(b)(2); 1926.54(a)

SEP 21 1992

Dear Ms. K:

This is in response to your letter of April 8 requesting information about the Occupational Safety and Health Administration (OSHA) training requirements for the use of Level 1 lasers. I apologize for the delay in responding to your inquiry.

Although paragraph 29 CFR 1926.54(a) requires employees assigned to install, adjust, and operate laser equipment (including Level 1 type lasers) to be trained, there are no additional specific OSHA regulations that indicate what training is necessary. Consequently, the general safety training and education requirements of 29 CFR 1926.21(b) apply and those have been interpreted by OSHA to require at least the following:

1. The employer shall provide for the instruction of each laser equipment operator and instructor in accordance with the applicable manufacturer's recommendations. The instruction process shall inform the operator of various hazards associated with the use of the equipment and the necessary or recommended control measures for the elimination of hazards to personnel. In addition to information from the manufacturer, the American National Standard ANSI Z136.1-1986 could be reviewed for training information.
2. Instruction should be conducted by a qualified representative of the manufacturer, or by a knowledgeable individual designated by the employer.

It is always a good practice to maintain employee training documentation at the construction site so that the records are available for review by a compliance officer.

If you have further questions, please do not hesitate to contact Mr. R. F. G. or Mr. D. R. C. of my staff at (202)219-8136.

OSHA Instruction STD 3-17.3

March 8, 1982

SUBJECT: Specific Standards Applicable to Cut-and-Cover Operations During the Construction of Tunnels.

- A. Purpose.** This instruction clarifies applicable standards to be applied to cut-and-cover construction operations during the construction of tunnels.
- B. Scope.** This instruction applies OSHA-wide.
- C. Cancellation.** This directive cancels OSHA Instruction STD 3.1, December 10, 1979. The cancelled directive was erroneously classified, and this directive contains the same information under the proper classification.
- D. Action.** OSHA Regional Administrators/Area Directors shall use the guidelines set forth in paragraph G. of this instruction for enforcement of the referenced standard.
- E. Federal Program Change.** This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:
 - 1. Ensure that this change is forwarded to each State designee.
 - 2. Explain the technical content of the change to the State designee as requested.
 - 3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.
 - 4. Review policies, instructions and guidelines issued by the State to determine if this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections, spot check visits and case file reviews) shall also be used to determine if this change has been implemented in actual performance.
- F. Background.** The construction of major new subways, subway stations and tunneling systems has resulted in frequent application of cut-and-cover construction procedures on such projects. Frequent confusion regarding the application of the construction standard, 29 CFR 1926, Subparts P and S, has been prevalent.
 - 1. Cut-and-Cover construction methods require extensive excavation, trenching and shoring operations to be performed. The hazards associated with worker exposures, at each phase during construction, becomes complicated by the additional hazards which are associated with tunneling operations.
 - 2. It is clear that the hazards associated with excavation, trenching and shoring continue throughout a major portion of cut-and-cover construction operations. A clarification has been needed to identify at what phase during the construction operations may the hazards associated with tunneling become a concern to the safety of workers.
 - 3. This instruction is intended to effect enforcement uniformity. The issues relevant to cut-and-cover operations, as associated with subway and tunneling system construction projects, are interpreted herein.
- G. Guidelines.** For compliance purposes, OSHA shall interpret the application of 29 CFR 1926, Subpart P, Excavation, Trenching and Shoring, and 29 CFR 1926, Subpart S, Tunnels and Shafts, Caissons, Cofferdams, and Compressed Air as follows:

OSHA Instruction STD 3-17.3 (cont.)

- 1. 29 CFR 1926, Subpart P, shall apply to all phases of cut-and-cover construction operations being conducted during, and as part of, the construction of tunnels.**
- 2. In addition to Subpart P of 29 CFR 1926, Subpart S shall be applicable to any phase of cut-and-cover construction operations being conducted during, and as a part of, the construction of tunnels when a cover, temporary or permanent, extends over the top of a cut or excavation so as to create situations in which hazards, such as those existing in tunnel operations, may be present. Examples of applicable situations include those where there is limited access or egress of employees, the limited movement of air, and limited natural daylight illumination at the worksite.**

OSHA Instruction STP 2-1.127

AUG 18 1986
Office of State Programs

Subject: Electrical Standards for Construction; Final Rule.

A. Purpose. This instruction describes a Federal Program change to the Regions and State designees.

B. Scope. This instruction applies OSHA-wide.

C. Reference. OSHA Instruction STP 2.19, February 27, 1981.

D. Federal Program Change. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this instruction is forwarded to each State designee.
2. Provide a copy of the Federal Register notice to the State designee upon request.
3. Explain the technical content of the Federal Register notice at 51 FR 25294, July 11, 1986, Electrical Standards for Construction; Final Rule, to the State designee upon request.
4. Ensure that each State designee acknowledges receipt of this instruction in writing, within 30 days of notification, to the Regional Administrator. The acknowledgment should include (a) the State's plan to adopt and implement the standard change, (b) the State's plan to develop an alternative change, which is as effective, or (c) the reasons why no change is necessary to maintain a program which is as effective.
5. Inform each State designee that the State must promulgate standards within 6 months of the date of Federal publication that are "at least as effective" as revised Subpart K of 29 CFR Part 1926, and submit a plan supplement to the Regional Administrator.

E. Interim Enforcement. Under 29 CFR 1953.23(a) and (b), State plan States are provided up to 6 months from publication of the Federal standard in the Federal Register to promulgate an identical or "at least as effective" as standard. If a State, for whatever reason, is unable to promulgate a standard in a timely manner (6 months for a permanent standard, 30 days for an emergency temporary standard) the State shall be expected to provide assurance that it will enforce the substantive provisions of the new or revised Federal standard through such means as use of its general duty clause or equivalent, temporary adoption of an identical standard, or an alternative, specified enforcement mechanism.

F. Different State Standards. Section 18(c)(2) of the OSH Act requires that State standards be "at least as effective" as the Federal and, when applicable to products used or distributed in interstate commerce, be required by compelling local conditions and not unduly burden interstate commerce. In addition to the "at least as effective" criterion, this "product clause test" will be applied to State standards with substantively different requirements from the comparable Federal standards, as discussed in OSHA Instruction STP 2-1.117.

G. Background.

1. Electrical Standards for Construction; Final Rule, Subpart K of 29 CFR Part 1926 (revised) was published July 11, 1986, at 51 FR 25294. The revision is intended to clarify and update those standards.
2. For many years the National Electronic Code (NEC) has represented the continuing efforts of experts in electrical safety to deal with recognized hazards and to provide for safety in all electrical installations, including construction workplaces.
3. The regulations presently contained in Subpart K of 29 CFR Part 1926 incorporated the entire 1971 NEC by reference. They also included some additional requirements (for example, those

OSHA Instruction STP 2-1.127 (cont.)

on battery rooms and battery charging, 1926.403) that are not contained in the NEC. The NEC provides the basis for electrical safety regulations in over 2000 municipalities throughout all 50 States, and it is enforced by 12,000 governmental electrical inspectors.

4. OSHA recognizes the important role that the NEC has played over the years in defining basic requirements for safety in electrical installations. The revision of Subpart K will maintain the protection presently afforded to employees by the 1971 NEC, as incorporated by reference in the former standards. While carrying forward NEC provisions which are considered necessary for employee safety, OSHA is providing greater flexibility for compliance with these provisions to the extent that employee safety warrants. OSHA has determined, therefore, that the requirements contained in this revision of Subpart K are reasonably necessary to protect employees from electrical hazards posing significant risks in the workplace.

RECORD ID 1230

STANDARD NUMBER 1926
INFORMATION DATE 830502

ABSTRACT This interpretation letter addresses requirements for stilts in the construction industry. OSHA does not specifically require the use of stilts. Employees on stilts may be exposed to hazards such as wall and window openings, and additional precautions may be appropriate to ensure their safety.

INTERPRETATION 29 CFR 1926

May 2, 1983

Thank you for your recent letter concerning the use of stilts in the construction industry. Your letter addressed to Assistant Secretary was forwarded to this office for reply. This also confirms your telephone conversation with Mr. S, a member of my staff.

The Occupational Safety and Health Regulations for Construction do not specifically require the use of stilts. We would recommend that stilts adjustable from approximately 12 inches to 36 inches be used in accordance with the manufacturer's recommendations. The stilts, under discussion, are a design similar to those depicted in the enclosed illustration. We would also caution that there may be situations, such as employees on stilts being exposed to guardrails, window openings, wall openings, rough walking/working surfaces, etc., which could present a hazard to employees and require additional safeguarding.

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DOE Interpretations Guide to OSH Standards

July 1, 1992

RECORD ID D9308045

STANDARD NUMBER 1926
INFORMATION DATE 930928

ABSTRACT This interpretation letter addresses a question about the acceptability of using a track hoe for lifting.

A track hoe may be used for lifting, but only if the manufacturer gives written permission and guidance on the correct attachments and manner to use the equipment.

INTERPRETATION 29 CFR 1926

This interpretation is in response to your letter dated August 30, 1993, asking about the requirements for lifting with a track hoe.

A potential hazard exists when a track hoe is used as a crane. Although OSHA has no specific standards for track hoes, it does have specific standards for cranes and lifting that must be met. The only way to use a track hoe as a crane for lifting would be to have written information from the manufacturer that describes the proper attachments and procedures for using the track hoe as a crane for lifting. A track hoe may be used for lifting only if the manufacturer gives written permission and recommendations for using the equipment in that manner.

RECORD ID 92092101

STANDARD NUMBER 1926.21(b)(2); 1926.54(a)
INFORMATION DATE 19920921

ABSTRACT

This letter responds to a request for information about OSHA's training requirements for the use of Level 1 lasers. Although paragraph 1926.54 (a) requires employees assigned to install, adjust, and operate laser equipment (including Level 1 type lasers) to be trained, there are no additional specific OSHA regulations that indicate what training is necessary. However, OSHA has interpreted that the general safety training and education requirements of 1926.21(b) do apply. There are minimum safety and health training requirements for laser equipments operators.

INTERPRETATION 29 CFR 1926.21(b)(2); 1926.54(a)

SEP 21 1992

Dear Ms. K:

This is in response to your letter of April 8 requesting information about the Occupational Safety and Health Administration (OSHA) training requirements for the use of Level 1 lasers. I apologize for the delay in responding to your inquiry.

Although paragraph 29 CFR 1926.54(a) requires employees assigned to install, adjust, and operate laser equipment (including Level 1 type lasers) to be trained, there are no additional specific OSHA regulations that indicate what training is necessary. Consequently, the general safety training and education requirements of 29 CFR 1926.21(b) apply and those have been interpreted by OSHA to require at least the following:

1. The employer shall provide for the instruction of each laser equipment operator and instructor in accordance with the applicable manufacturer's recommendations. The instruction process shall inform the operator of various hazards associated with the use of the equipment and the necessary or recommended control measures for the elimination of hazards to personnel. In addition to information from the manufacturer, the American National Standard ANSI Z136.1-1986 could be reviewed for training information.
2. Instruction should be conducted by a qualified representative of the manufacturer, or by a knowledgeable individual designated by the employer.

It is always a good practice to maintain employee training documentation at the construction site so that the records are available for review by a compliance officer.

If you have further questions, please do not hesitate to contact Mr. R. F. G. or Mr. D. R. C. of my staff at (202)219-8136.

OSHA Instruction STD 3-3.1

JUL 18, 1983

Subject: Fall Protection in Construction; 29 CFR 1926.28(a) and 29 CFR 1926.105(a)

- A. Purpose** This instruction clarifies the meaning of 29 CFR 1926.28(a) and 1926.105(a) as they apply to the protection of employees exposed to falling hazards in the construction industry.
- B. Scope.** This instruction applies OSHA-wide
- C. Reference** OSHA Instruction STD 3-13.1, October 30, 1978, originally issued January 31, 1978.
- D. Action** Regional Administrators and Area Directors shall ensure that the interpretative guidelines given in this instruction are adhered to when inspecting construction sites where employees are exposed to falling hazards not covered under more specific standards.
- E. Federal Program Change.** This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:
 - 1. Ensure that this change is promptly forwarded to each State designee.
 - 2. Explain the technical content of this change to the State designee as requested
 - 3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the States plan to implement the change or of the reasons why the change should not apply to that State.
 - 4. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections and case file reviews) shall also be used to determine if this change has been implemented in actual performance.
- F. Background.** The construction industry, although employing only about 5 percent of the work force, accounts for about 20 percent of occupational fatalities occurring annually in the United States. Of these fatalities, approximately 25-30 percent are the result of falls from elevated locations.
 - 1. OSHA has numerous standards designed to prevent such accidents. Some of these standards apply to specific situations and contain specific requirements, such as for guardrails on open-sided floors or on scaffolds, the use of ladders to gain access to elevated locations, and, for particular operations, the use of safety belts (1926.700(b)(1)) or of solidly planked flooring (1926(b)(2)(i)).
 - 2. There are many situations, however, not covered by specific standards. For these, general standards must be used. For this reason 29 CFR 1926.28(a) and 1926.105(a) have become among the most frequently cited standards. The requirements of these two general standards are as follows:
 - a. 1926.28(a) requires the use of appropriate personal protective equipment whenever employees are exposed to hazardous conditions.
 - b. 1926.105(a) requires that employees exposed to falls of more than 25 feet be protected by safety nets whenever protection by other means (identified in the standard) is impractical.
 - 3. OSHA believes that the meaning of applicability of these standards have been clarified through its enforcement policies and by consistent and authoritative interpretation of these standards by the Occupational Safety and Health Review Commission.

OSHA Instruction STD 3-3.1 (cont.)

4. Several United States Courts of Appeals, however, have vacated citations under these two standards on the grounds that the standards fail to provide employers with adequate notice of what they must do to comply with the Act. These decisions have not been uniform, however, and do not establish consistent enforcement guidelines. A recent decision, recognizing this lack of consistency, suggested that OSHA promulgate new standards on the matter or issue an instruction clarifying the requirements of the present standards. In keeping with the Court's recommendation, this OSHA Instruction is being issued.

G. Guidelines. The following interpretative guidelines are established for the use of 29 CFR 1926.28(a) and 1926.105(a)

1. 1926.28(a). OSHA interprets this standard to mean that employers are required to ensure that employees wear and use safety belts to protect them from falling when exposed to falls from heights of 10 feet or more or from heights below 10 feet under certain particularly hazardous circumstances such as those described in G.1.b.
 - a. A reasonably prudent employer in the construction industry would recognize a hazard warranting the use of safety belts whenever an employee is exposed to a fall of 10 feet or more.
 - b. The same employer would also recognize a hazardous situation warranting the use of a safety belt even if the potential fall distance is less than 10 feet, such as when employees are working over machinery, moving equipment, or objects posing an impalement hazard.
 - c. OSHA believes that requiring fall protection under 1926.28(a) at 10 feet or more is consistent with other fall protection provisions in the construction regulations, e.g., 1926.451, where guardrails are generally required for scaffold platforms above 10 feet, and 1926.500, where guardrails are generally required for fall distances of 6 feet or more.
 - d. Safety belts generally are not required for heights of less than 10 feet under 1926.28(a) due to the need for maneuverability and the common use of safety belts with a 6-foot lanyard.
2. 1926.105(a) OSHA interprets this standard to mean that, when employees are exposed to falls of over 25 feet, the employer is required either to provide a safety net or to enforce the use of other safety devices listed in the standard, as appropriate, for the protection of exposed employees.
 - a. The requirements of the standard are met only if use of one of the listed devices provide adequate fall protection to employees. Thus, for example, use of a catch platform does not satisfy the standard if employees are still exposed to a fall when working on or adjacent to the platform.
 - b. 1926.105(c) sets forth the requirements which must be met if the employer chooses to use netting for employee protection.
3. Relationship Between 1926.28(a) and 1926.105(a). In general, construction falling hazards of 10 through 25 feet not covered by a specific standard are governed by 1926.28(a) while those of more than 25 feet are addressed by 1926.105(a).
 - a. Falling Hazards to the Interior of Buildings. The application of these standards to falling hazards to the interior of buildings shall be governed by the following principles:
 - (1) In the structural steel construction of tiered buildings, 1926.28(a) shall be cited in situations in which employees are exposed to falls of 10 to 25 feet. When employees are exposed to falls of more than 25 feet (or 30 feet when the employer has failed to comply with the flooring requirements of 1926.750(b)(2)(i)), the appropriate steel erection flooring requirements standard shall also be cited.

OSHA Instruction STD 3-3.1 (cont.)

- (2) In other types of construction 1926.28(a) shall be cited for falling hazards of 10 through 25 feet. For falling hazards of more than 25 feet 1926.105(a) shall be cited as the more specific standard. Correction of a 1926.105(a) violation can be accomplished by any of the methods listed in the standard as long as employees are adequately protected from falls.
 - b. **Falling Hazards to the Exterior of Buildings.** For all types of construction, including steel erection, exterior falling hazards shall be cited under 1926.28(a) when the potential falling distance is 10 through 25 feet under 1926.105(a) when the potential falling distance is greater than 25 feet.
- 4. Impossibility and Greater Hazard.** OSHA, in recognition of long-standing Review Commission and court precedent, has acknowledged in the past and continues to acknowledge that there are affirmative defenses which excuse the employer from a violation which has otherwise been proved. (See FOM, Chapter V,E.)
- a. The employer may establish a defense when certain specific conditions exist. The conditions are as follows:
 - (1) If compliance with the standard is either impossible or more hazardous than non-compliance; and
 - (2) There is no alternative means of protecting employees; and
 - (3) A variance would be inappropriate.
 - b. If it is apparent that compliance with a standard would meet the conditions in subparagraph a, a citation shall not be issued.
 - c. OSHA considers it to be the employer's responsibility to demonstrate that the conditions are met. At the same time the CSHO shall attempt to gather contrary evidence in accordance with the guidelines in the FOM, Chapter V,E.2.

RECORD ID 1446

STANDARD NUMBER 1926.28(a); 1926.104; 1926.105; 1926.500
INFORMATION DATE 810113

ABSTRACT This interpretation pertains to the applicability of standards to overhand-bricklaying. Masons and mason tenders involved in overhand-bricklaying are exempt from certain construction standards.

(NOTE: None of the standards listed have been amended since the 1981 interpretation letter.)

INTERPRETATION 29 CFR 1926.28(a); 1926.104; 1926.105; 1926.500

January 13, 1981

This is in response to your letter of January 6, 1981 concerning the applicability of standards 29 CFR 1926.28, 29 CFR 1926.104, 29 CFR 1926.105, and 29 CFR 1926.500(d)(1) to the process of overhand-bricklaying.

It is the interpretation of OSHA that these standards do not apply to the process of overhand-bricklaying and that, therefore, masons and mason tenders are exempt from these regulations.

The Occupational Safety and Health Administration will continue to study the problem by consulting with the (committee) (association), the (union), (union A), and other interested parties, to determine what new regulations, if any, would be appropriate for promulgation concerning this matter.

RECORD ID

2194

**STANDARD NUMBER
INFORMATION DATE**1926.28(a); 1926.105(a); 1926.451(a)(4)
850930

ABSTRACT

Fall protection for employees engaged in erecting or dismantling scaffolds is not specifically required at all times. However, employees erecting or dismantling scaffolds must wear safety belts and lanyards in performing work at a stationary location for a period of time which allows for the practical use of safety belts and lanyards.

(NOTE: This standard has not been amended since 1986 when the authority citation was added.)

INTERPRETATION

29 CFR 1926.28(a); 1926.105(a); 1926.451(a)(4)

Sep 30, 1985

This is in response to your letter of September 11, concerning fall protection for employees engaged in erecting or dismantling scaffolds.

The Occupational Safety and Health Administration's (OSHA) policy has been to require fall protection whenever employees are exposed to hazardous conditions meeting the criteria as defined in OSHA Instruction STD 3-3.1, entitled "Fall Protection in Construction: 29 CFR 1926.28 and 105(a)" (copy enclosed). A recent court case involving (company A) and (company B), as outlined in the Occupational Safety and Health Reporter, supports our position that OSHA require at times the use of guardrails or safety belts in dismantling scaffolds. In summary, the Court decided that the absence of fall protection to employees working at intermediate levels of scaffolds posed a hazard capable of serious physical harm or death. Tying employees off could be achieved in a matter of seconds and the wearing of safety belts in dismantling of scaffolds was feasible and did not pose a greater hazard than not wearing them.

When the Subpart L proposal is published in the Federal Register we will encourage employers to comment on the subject proposed standard. It is possible that we may receive comments on the proposal which would require us to modify the standard. However, the August 2 memorandum mentioned in your letters clarifies our current position in this matter and will not be withdrawn at this time.

SOURCE LETTER

Sep 11, 1985

Re: Fall Protection for employees engaged in erecting or dismantling scaffolds

Several months ago I talked to Mr. W, Director, Directorate of Safety Standards Programs, about a problem the scaffold industry was having with a particular OSHA office where the Region Administrator was requiring that scaffold erectors use safety belts and lifelines while erecting scaffolds.

In the past ten years, the Courts have consistently ruled that safety belts and lifelines are not feasible, nor required, during erecting and dismantling scaffolds.

Since current scaffold standards are silent on this subject, OSHA's Office of Compliance has assisted us in the past by supporting this position when problems have arisen in the field. It was not necessary to request a written interpretation in the past. However, in order to correct the problem at the Regional level, Mr. W agreed to have Mr. M, Director, Directorate of Field Operations, send a Memorandum to all Regional Administrators.

The intent of the August 2, 1985, Memorandum (see attached copy) was to support the position taken by the Courts and the Office of Compliance and to assure the Regional Administrators that the new proposal for Subpart L - Ladders and Scaffolding will specifically include a proposal in the text that will exempt employers engaged in erecting or dismantling scaffolds from the fall protection provisions.

Unfortunately, the first paragraph of the August 2, 1985, Memorandum contains statements with which we must take issue, as follows:

1. Quoting the first sentence: "It is not the intent of the construction scaffold standards to specifically require employees who erect or dismantle scaffolds to use a safety belt and lanyard at all times."

Due to the fact that scaffold standards are silent with respect to fall protection during erection and dismantling, the first sentence is incorrect since the last three words, "at all times," imply that a safety belt and lanyard are required for some indeterminate time.

2. Quoting the second sentence: "However, employees erecting or dismantling scaffolds must wear safety belts and lanyards in performing work at a stationary location for a period of time which allows the practical use of safety belts and lanyards."

The statement "a stationary location for a period of time" is not in the Standards and, therefore, imposes a new requirement of industry which cannot be promulgated by either Memorandum or Program Directive.

Aside from the question of imposing a new rule, the suggestion of "period of time" during which a worker would be required to use belts and lanyards is not acceptable or practical to industry. Would each compliance officer determine (at his own discretion) the length of that "period of time?" Would it be a couple of minutes, ten minutes or four hours?

If the August 2, 1985, Memorandum is not rescinded or corrected, each employer's potential liability would make it impossible to stay in business. The exposure to repeated and willful violations would be constant.

The greatest hazard is to the safety of the scaffold erectors. Anyone with knowledge and experience in our industry knows that safety lines and lanyards create a tripping hazard to erectors who must have mobility when moving about with scaffold equipment such as heavy frames and braces which could easily become entangled with lines.

Suppose an accident occurred and OSHA had a requirement that the erector be tied off "at a stationary location for a period of 10 or more minutes." Who would determine at what point in time the accident occurred?

Without a stopwatch, who is to say whether the accident occurred at 9 minutes or 11 minutes? Can you imagine the field day attorneys for the plaintiff and defense would have with that?

3. Quoting the third sentence: "It is OSHA's position that requiring the constant wearing of belts and lanyards while erecting or dismantling scaffolds could be hazardous to employees."

The word "constant" creates the same problem, since it also implies some indeterminate period of time.

Until such time as the new proposed Subpart L is promulgated, this matter should be clarified so as to avoid inconsistent application of the scaffold standards. We request that the August 2, 1985, Memorandum be withdrawn and that a new Memorandum be issued containing a statement that the current standards do not contain any stipulation that employees erecting or dismantling scaffolds must wear safety belts and lanyards while performing work at a stationary location for a period of time. This is necessary in order to correct the misconception arising in the field among compliance officers as well as administrators.

The last paragraph of the following Memorandum dated 2 August, 1985 should be retained as is, or referred to Mr. M's office for correct wording.

Aug 2, 1985

MEMORANDUM

SUBJECT: Fall Protection for employees engaged in erecting or dismantling scaffolds in the Construction Industry

It is not the intent of the construction scaffold standards to specifically require employees who erect or dismantle scaffolds to use a safety belt and lanyard at all times. However, employees erecting or dismantling scaffolds must wear safety belts and lanyards in performing work at a stationary location for a period of time which allows the practical use of safety belts and lanyards. It is OSHA's position that requiring the constant wearing of belts and lanyards while erecting or dismantling scaffolds could be hazardous to employees.

The Directorate of Safety Standards Programs anticipates publishing a new proposal for Subpart L - Ladders and Scaffolding later this year. The fall protection proposed for employees erecting/dismantling scaffolds will be specifically included in that proposal and the text contains a provision which will exempt employees engaged in erecting or dismantling scaffolds from using any fall protection.

RECORD ID

1711

STANDARD NUMBER
INFORMATION DATE1926.28(a)
840723

ABSTRACT

This interpretation letter clarifies 1926.28(a) regarding whether an orange vest constitutes personal protective equipment (PPE). OSHA has reconsidered their position on whether orange vests are personal protective equipment within the meaning of 1926.28(a) and has determined that high visibility vests fall under the broad definition of Personal Protective Equipment.

INTERPRETATION

29 CFR 1926.28(a)

JUL 23, 1984

This is in response to your letter of May 25, regarding our recent clarification of 29 CFR 1926.28(a) as to whether an orange vest constitutes personal protective equipment.

We have reconsidered our position of whether orange vests are personal protective equipment within the meaning of 29 CFR 1926.28(a). Our further research has revealed several authoritative sources which we feel are noteworthy. The Accident Prevention Manual for Industrial Operations, published by the National Safety Council, under the classification of Personal Protective Equipment (PPE); Subheading, Special Clothing, lists "high visibility and night hazard clothing for construction, utility, maintenance workers" Other listings under this subheading include disposable clothing, leaded clothing. The National Safety Council classes high visibility clothing along with other types of protective clothing as Personal Protective Equipment.

The Safety Standards for Construction Work of (state) also address the issue. Under Part C, Personnel Protective and Life Saving Equipment, (WAC 296-155-200), General Requirements, item 5 reads: "Employees, whose duties are regularly performed in areas and under circumstances when they are exposed to the danger of moving vehicles, shall wear work vests of highly visible materials, or equivalent distinguishing apparel." Thus the (state) Standards also group high visibility vests along with other personal protective devices under the heading of Personal Protective Equipment

The ANSI Manual on Uniform Traffic Control Devices for Streets and Highways (D6.1-1971) requires that in positioning flagmen, consideration must be given to maintaining color contrast between the flagman's protective garments and his background. Thus, the ANSI Manual also appears to support the position that protective garments are personal protective equipment.

Our determination, in view of the information available to us, is that high visibility vests would fall under the broad definition of Personal Protective Equipment.

RECORD ID**2007**

**STANDARD NUMBER
INFORMATION DATE****1926.28(a); 1926.105(a); 1926.750(b)(2)(i)
831004**

ABSTRACT

This interpretation letter addresses the standards for falling hazards less than 25 feet (1926.28(a), 105, and 750) as applied to the erection of structural steel. Employees normally must be protected from falls by tied-off safety belts or nets if doing so does not create a greater hazard. Steel worker connectors normally are not required to tie-off.

(NOTE: Standards 1926.105 and 1926.28 have not been amended since issuance. Standard 1926.750 was amended in 1974.)

INTERPRETATION**29 CFR 1926.28(a); 1926.105(a); 1926.750(b)(2)(i)****October 4, 1983**

This is in response to your letter of September 8, 1983, requesting a further clarification of standards applicable to the erection of structural steel.

Falling hazards involving distances of less than 25 feet are addressed by 29 CFR 1926.28(a). Essentially, employees are required to enforce the use of tied-off safety belts without creating greater hazards. However, within the jurisdiction of the U.S. Court of Appeals for the 5th and 11th Circuits, OSHA may enforce the use of the tied-off safety belts for falls under 29 CFR 1926.28(a), only in those situations in which industry custom and practice is to use tied-off safety belts. It is customary in the construction industry for iron workers to use tied-off safety belts in situations in which employees are stationary; for example, when they are doing structural welding, bolting-up, riveting, etc.

We do accept, as a general proposition, the premise that connectors need not be tied-off when initially connecting steel members together. However, occasionally there are situations in which connectors are in one location for an extended period of time and are not in danger of being struck by suspended steel. In such situations, the connector should tie-off. Although we do not believe that connectors ordinarily ought to be required to tie-off, they must be protected from falling hazards by other means when it is possible to do so without creating greater hazards. On a multi-story building, for example, there must be either a tightly decked floor or a safety net directly below them in the interior of the building within two floors or 30 feet, whichever is less (25 feet if nets are being used), or the employer should be cited for violation of 29 CFR 1926.750. In a non-tiered building, connectors must be protected from falls in excess of 25 feet as required by 29 CFR 1926.105.

If employees, including connectors, are exposed to more than a two-story or 25-foot fall to the outside of the building they should be protected as required by 1926.105(a) and (c)(1), where it is possible to do so and when the rigging of nets does not create greater hazards than allowing employees to work unprotected from falling hazards.

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DOE Interpretations Guide to OSH Standards

July 1,1992

RECORD ID 1701

STANDARD NUMBER 1926.32(l); 1910.252(a)(2)(xiv)
INFORMATION DATE 820223

ABSTRACT This interpretation letter clarifies the term "qualified person or personnel". The term "qualified" is used frequently throughout the OSHA safety and health regulations. The OSHA Construction Standard, 29 CFR 1926.32(l), presents an all inclusive definition of the term that is frequently applied by OSHA when the need arises.

(NOTE: 1926.32 has not been amended since issuance.)

INTERPRETATION 29 CFR 1926.32(l)

23 FEB 1982

Thank you for your letter of December 23, 1981, requesting clarification of the term "qualified person or personnel."

The term "qualified" is used frequently throughout the OSHA safety and health regulations. As you are aware, it is used under varying circumstances; therefore, it is necessary that it be related to the specified of each situation and not be taken out of context. The term does not relate exclusively to a person's authority to resolve deficiencies.

The OSHA Construction Standard, 29 CFR 1926.32(l), presents an all inclusive definition of the term, and is frequently applied by OSHA when the need arises. That definition is as follows:

"Qualified" means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his or her ability to solve or receive problems relating to the subject matter, the work, or the project.

As can be seen, this definition is pertinent to any situation or circumstances. It is not restrained to the recognition of hazards and/or the stipulation of preventative procedures, but further includes the ability to resolve the situation acceptably.

In regards to the welding standard, 29 CFR 1910.252(b)(4)(ix)(a), you are quite correct in assuming that further elaboration is necessary in this regard. The qualified person would be expected to be knowledgeable of the equipment at hand and of the manufacturer's requirements and procedures for proper maintenance and repair.

Furthermore, such a person would be expected to be well informed as to the various codes and local regulations which would be applicable, and of any current manufacturer's notices pertaining to the use of repair of the equipment. Further it would be advisable that such a person be familiar with the safety requirements of ANSI Z49.1-1973, regarding maintenance, as well as with the current recommendations of the (society).

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DOE Interpretations Guide to OSH Standards

July 1,1992

RECORD ID 92041506

STANDARD NUMBER 1926.32 (f), (l); 1926.650 (b)
INFORMATION DATE 19920415

ABSTRACT An interpretation addressing OSHA's rules addressing competent persons and qualified persons. "Competent person" is defined in 29 CFR 1926.32(f) as "one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them." The preamble for the rulemaking on excavations states that what constitutes a "competent person" depends on the context in which the term is used. A "qualified" person or engineer, as defined in 1926.32(l), might have more technical expertise, but would not necessarily have expertise in hazard recognition or the authority to correct identified hazards.

INTERPRETATION 29 CFR 1926.32 (f), (l); 1926.650 (b)

April 15, 1992

Dear Mr. B:

Your March 5 letter to Mr. J. F., Director of the Office of Information and Consumer Affairs, requesting information on the Occupational Safety and Health Administration (OSHA) rules addressing competent persons has been forwarded to the Office of Construction and Maritime Compliance Assistance for reply. I apologize for the delay in responding to your inquiry.

For the purposes of OSHA's safety and health standards for the construction industry, "competent person" is defined in 29 CFR 1926.32(f) as "one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them." This definition is further clarified in the preamble for the rulemaking on excavations (FR 54 45909) issued on October 31, 1989. That preamble states that what constitutes a "competent person" depends on the context in which the term is used. In order to be a "competent person" for the purposes of the excavation standard, one must have specific training in, and be knowledgeable about, soils analysis, the use of protective systems, and the requirements of the excavation standard. One who does not have this training or knowledge is not considered by OSHA to be capable of identifying existing and predictable hazards in excavation work nor capable of taking the necessary corrective measures. By contrast, a "qualified" person or engineer, as defined in 1926.32(l), might have more technical expertise, but would not necessarily have expertise in hazard recognition or the authority to correct identified hazards.

I have enclosed a list of the sections in 29 CFR 1926 that address competent persons. If we can be of any further assistance, please contact Mr. R. F. G. or Mr. D. R. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

OSHA Instruction STD 1-8.2

March 8, 1982

Subject: 29 CFR 1910.151(c), Medical Services and First Aid; 29 CFR 1926.50 and 51, Medical Service and First Aid, and Sanitation, Respectively; Applicable to Electric Storage Battery Charging and Maintenance Areas

- A. Purpose.** This instruction provides guidelines regarding eye wash and body flushing facilities required for immediate emergency use in electric storage battery charging and maintenance areas.
- B. Scope.** This instruction applies OSHA-wide.
- C. Action.** OSHA Regional Administrators/Area Directors shall ensure that OSHA field staff apply the requirements the subject standards to electric storage battery charging areas as set forth in E. of this instruction.
- D. Federal Program Change.** This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:
 - 1. Ensure that this change is forwarded to each State designee.
 - 2. Explain the technical content of the change to the State designee as requested.
 - 3. Ensure that State designees are asked to acknowledge receipt of the Federal Program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.
 - 4. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections and case file reviews) shall also be used to determine if this change has been implemented in actual performance.
- E. Guidelines.** OSHA field staff will evaluate the potential circumstances for employee exposure to electrolyte(s) in electric storage battery handling, charging and maintenance areas.
 - 1. The safety or health compliance officer shall document the following observations in the case file:
 - a. Employee use of personal protective equipment.
 - b. Type and chemical concentration of electrolyte(s).
 - c. Special guards and/or precautions intended to provide for employee protection from electrolyte exposure.
 - d. Based upon employee job functions, record the extent and type of probable employee exposure to electrolyte(s).
 - e. Note the availability and location of eye wash and body flushing equipment/facilities. (An arrangement, which includes a hose equipped with a proper face and body wash nozzle, shall also be noted.)
 - 2. The compliance officer and Area Director shall evaluate the data documented in E.1. Where potential employee exposure to hazardous storage battery electrolyte(s) exists, the circumstances and extent of exposure shall determine the application of the following alternatives:

OSHA Instruction STD 1-8.2 (cont.)

- a. The use of effective personal protective equipment in combination with an eye wash and body flushing station in near proximity to the work area(s), shall be deemed to provide adequate minimum protection for employees.
 - b. In areas where the extent of possible exposure to electrolyte is small, (i.e., such as auto garages, service stations and in certain industrial and construction situations), a specially designated pressure controlled and identified water hose equipped with a proper face and body wash nozzle which will provide copious amounts of low velocity potable water, or an appropriate portable eye wash device containing not less than one gallon of potable water which is readily available and mounted for use, is considered to provide minimum employee protection when proper personal protective equipment is used.
 - c. In addition to emergency eye and/or face wash procedures, the employer shall ensure that adequate provisions have been established for the emergency care of employees exposed to eye or face contact with electrolytes.
 - d. At construction sites and in commercial and manufacturing facilities at locations where powered industrial trucks are parked for overnight storage and routine battery recharging only, no need for emergency facilities exists unless potential exposure to electrolyte is substantiated. Where exposure is possible (i.e., servicing batteries) the provisions of E.2.b and E.2.e. should be evaluated for applicability.
 - e. At construction sites and in commercial manufacturing facilities where batteries (such as industrial truck batteries) are serviced and handled, proper plumbed eye wash and body drenching equipment shall be available immediately adjacent to the work station(s) and within the work area regardless of the personal protective equipment required and used.
3. Where employee exposure to hazardous electric storage battery electrolyte(s) exists and minimum protection measures are not provided, citations shall be issued as appropriate for violations of:
- a. 29 CFR 1910.151(b) or 29 CFR 1926.50(c), a person or persons adequately trained to render first aid shall be readily available in the absence of an infirmary, clinic, or hospital in near proximity to the workplace which is used for the treatment of all injured employees.
 - b. 29 CFR 1910.151(c) and as adopted by 29 CFR 1926.51, where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.
 - c. 29 CFR 1910.132(a) or 29 CFR 1926.28(a), personal protective equipment for eyes, face, head, and extremities, protective clothing and protective shields and barriers, shall be provided, used and maintained in a sanitary and reliable condition wherever it is necessary by reason of chemical hazards encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact.
- F. Background. 29 CFR 1910.151 (c), Medical Services and First Aid, needs clarification regarding its applicability to the hazards of electric storage battery charging areas and the potential exposure of employees to electrolyte(s). There is a clear need to identify the extent and suitability of minimum acceptable eye wash and body quick drenching facilities which are available to potentially exposed employees.
1. The extent of potential employee exposure varies with workplace situations such as:
 - a. Employee functions.
 - b. Type of electrolyte(s) and concentration.
 - c. Type and size of batteries.

OSHA Instruction STD 1-8.2 (cont.)

- d. Facility layout.**
- e. Personal protective equipment used.**
- 2. The need for eye wash and body quick drenching equipment varies with the factors noted in F.1. Therefore, judicious enforcement of the standard should provide for an evaluation of the contributing factors relative to the potential hazardous exposure, and should permit appropriate minimum assurances for adequate first aid and subsequent treatment.**
- 3. Various forms of eye wash equipment are available today. Many are of the portable or self contained wall mounted type which are limited in the quantity of water available for eye wash purposes, and usually do not provide for body drenching. This equipment may be used for compliance with 29 CFR 1910.151(c) only when it is not economically feasible to provide plumbed equipment and/or where the potential employee exposure to electrolyte(s) is determined to be slight.**
- 4. Eye wash equipment should provide copious low velocity flow of portable water at a suitable temperature, generally between 60 degrees F and 105 degrees F.**

RECORD ID 1444

STANDARD NUMBER 1926.50(c)
INFORMATION DATE 760114

ABSTRACT In case of injury, assistance is "reasonably accessible" (1926.50(c)) if it is within 3 to 4 minutes of the scene of an accident.

INTERPRETATION 29 CFR 1926.50(c)

January 14, 1976

This is in response to your letter dated November 13, 1975, which requests an interpretation of 29 CFR 1926.50, and confirms your telephone conversation with Mr. C of my staff.

The phrase "reasonably accessible" emphasizes the desirability of prompt assistance when an injury or illness occurs. The time frame should be within 3 to 4 minutes, as death can occur from stoppage of breathing or severe bleeding depending on the type and location of the injury.

If arrangements cannot be made to provide emergency medical service within the time frame as discussed above, then a trained first aider should be available for each shift of the operation. First aid courses are available through local American Red Cross Chapters, and Emergency Medical Technician courses are available through local community colleges. These courses are recognized as meeting the requirements of the Occupational Safety and Health standards.

If your site is located in rural areas, or is some distance from the nearest hospital or clinic, some type of emergency transportation should also be considered.

RECORD ID

92102303

STANDARD NUMBER
INFORMATION DATE1926.50(c)
19921023

ABSTRACT

This interpretation concerns the definition of "reasonably accessible." The standards does not specify no one correct time or distance measure specified in the requirements. Therefore the phrase "reasonably accessible" is used to emphasize the desirability of prompt assistance when an injury or illness occurs. An employer must decide what action to take to achieve compliance with the cited standard. If the employees are working with materials that could affect respiration, or are subject to electrical shock, and medical attention is further than 4 minutes away, the employer must provide a person trained in first aid to be available at the worksite. The changing conditions on a construction site make it necessary for the employer to review these decisions periodically to assure that the safety and health measures are continuing to provide the necessary protection for the employees.

INTERPRETATION

29 CFR 1926.50(c)

OCT 23, 1992

Dear Ms. N:

This is in response to your August 14 letter requesting the Occupational Safety and Health Administration (OSHA) to clarify the application of 29 CFR 1926.50. I apologize for the delay in responding to your request.

The requirements set forth in 1926.50 are applicable to a wide range of construction activities and locations. Consequently, there is no one correct time or distance measure specified in the requirements. Therefore the phrase "reasonably accessible" is used to emphasize the desirability of prompt assistance when an injury or illness occurs. As a general rule, we recommend that a person trained in first aid be available on the site whenever professional medical attention is more than eight minutes away from any point on the site. However, the conditions present on any particular job site may make this eight-minute guide line inadequate.

If employees are working with materials that could adversely affect their respiration, or are subject to electrical shock that could cause loss of the breathing function, the eight-minute time period is too long. Irreversible brain damage can result in four minutes due to the lack of oxygen. Furthermore, death can occur from stoppage of breathing or severe arterial bleeding depending on the type and location of the injury. Accordingly, if hazards likely to cause such injuries are present and professional medical attention is not available within four minutes of the onset of the condition, then the employer must comply with the requirement for a person trained in first aid to be available at the worksite.

When the hazards on a worksite are of a less critical nature, the travel time factor becomes less critical also. But we recommend that the eight minute travel time be considered as the maximum.

An employer must decide what action to take to achieve compliance with the cited standard. We would add that the changing conditions on a construction site make it necessary for the employer to review these decisions periodically to assure that the safety and health measures are continuing to provide the necessary protection for the employees.

If you have any further questions, please do not hesitate to contact me or Mr. D. C. of my staff at (202) 219-8136.

RECORD ID 93060201

STANDARD NUMBER 1926.50 (e), (a)
INFORMATION DATE 19930602

ABSTRACT An interpretation letter with respect to the maximum response time as it is addressed in 1926.50 Medical Services and First Aid Standard. A maximum limit of fifteen minutes is now recognized by OSHA as appropriate. Conditions at each workplace must be evaluated when a first aid program is developed to ensure that it is adequate to meet anticipated needs.

INTERPRETATION 29 CFR 1926.50 (e), (a)

June 02, 1993

Dear Mr. N:

This is in further response to our letter of October 23, 1992 in which we answered your August 14, 1992 letter requesting the Occupational Safety and Health Administration (OSHA) to clarify the requirements in 29 CFR 1926.50.

Since our October response, we have had occasion to revisit the question and have revised our position with respect to the maximum response times. A maximum limit of fifteen minutes is now recognized by OSHA as appropriate. However, conditions at each workplace must be evaluated when a first aid program is developed to ensure that it is adequate to meet anticipated needs. For example, the first aid program requirements for a construction workplace will differ from those for an office environment such as at a home office.

Where a medical facility is near the workplace, 29 CFR 1926.50(a) requires the employer to insure the following:

1. In areas where accidents resulting in suffocation, severe bleeding or other life threatening injury or illness can be expected, a 3 to 4 minute response time is required. In other circumstances, i.e., where a life-threatening injury is an unlikely outcome of an accident, a longer response time of up to 15 minutes is acceptable.
2. If employees work in areas where emergency transportation is not available, the employer must make provisions for acceptable emergency transportation.

We apologize for any inconvenience our earlier letter may have caused you. If you have any questions, please contact either myself or Mr. D. C. of my staff at (202) 219-8136.

SOURCE LETTER

October 23, 1992

Dear Ms. N:

This is in response to your August 14 letter requesting the Occupational Safety and Health Administration (OSHA) to clarify the application of 29 CFR 1926.50. I apologize for the delay in responding to your request.

The requirements set forth in 1926.50 are applicable to a wide range of construction activities and locations. Consequently, there is no one correct time or distance measure specified in the requirements.

Therefore the phrase "reasonably accessible" is used to emphasize the desirability of prompt assistance when an injury or illness occurs. As a general rule, we recommend that a person trained in first aid be available on the site whenever professional medical attention is more than eight minutes away from any point on the site. However, the conditions present on any particular job site may make this eight-minute guide line inadequate.

If employees are working with materials that could adversely affect their respiration, or are subject to electrical shock that could cause loss of the breathing function, the eight-minute time period is too long. Irreversible brain damage can result in four minutes due to the lack of oxygen. Furthermore, death can occur from stoppage of breathing or severe arterial bleeding depending on the type and location of the injury. Accordingly, if hazards likely to cause such injuries are present and professional medical attention is not available within four minutes of the onset of the condition, then the employer must comply with the requirement for a person trained in first aid to be available at the worksite.

When the hazards on a worksite are of a less critical nature, the travel time factor becomes less critical also. But we recommend that the eight minute travel time be considered as the maximum.

An employer must decide what action to take to achieve compliance with the cited standard. We would add that the changing conditions on a construction site make it necessary for the employer to review these decisions periodically to assure that the safety and health measures are continuing to provide the necessary protection for the employees.

If you have any further questions, please do not hesitate to contact me or Mr. D. C. of my staff at (202) 219-8136.

RECORD ID 1297

STANDARD NUMBER 1926.52(a); 1910.95
INFORMATION DATE 830329

ABSTRACT This interpretation letter addressing the hearing conservation amendment. Standard 1910.95, does not cover construction or agriculture. The construction industry, 1926.52, is covered by its own noise standard.

INTERPRETATION 29 CFR 1926.52(a); 1910.95

March 29, 1983

The hearing conservation amendment to the occupational noise exposure standard, 29 CFR 1910.95, published on March 8, 1983, is applicable to all employees who work for employers who are covered by the Occupational Safety and Health Act except those engaged in construction or agriculture. This position was stated in the January 16, 1981, hearing conservation amendment and was repeated in the preamble to the August 21, 1981, hearing conservation amendment. While this statement was not repeated in the March 8, 1983, final hearing conservation amendment, OSHA's position has not changed. The construction industry is covered by its own noise standard, 29 CFR 1926.52.

RECORD ID**3205**

STANDARD NUMBER
INFORMATION DATE**1926.52(d)(1); 1926.55(a); 1926.57(b); 1910.1000**
900430

ABSTRACT

This interpretation letter addresses the technical feasibility of engineering controls for noise and dust overexposures at a tunnel construction site on a turnpike. The only technically feasible engineering control is retrofit of jumbo rock drills with acoustical cabs. This approach would not meet Field Operations Manual criteria for economic feasibility as time-weighted exposures were less than 400% and the company has instituted a hearing conservation program. As long as the program demonstrates no occupationally-related hearing loss in the noise-exposed workers, the control would be economically infeasible. Total dust levels were within OSHA PEL after installation of a mechanical ventilation system.

INTERPRETATION**29 CFR 1926.52(d)(1); 1926.55(a); 1926.57(b); 1910.1000****APR 30, 1990****Memorandum****Subject: Technical Feasibility of Noise and Dust Controls at the Tunnel**

On February 13, 1990 Dr. B of my staff in the company of Mr. W, a hygienist from your office, visited (contractor)'s at the Tunnel #2 on the Northeast Extension of the Turnpike to evaluate the feasibility of noise and ventilation engineering controls for cited noise and nuisance dust overexposures. Dr. B's conclusions follow:

The noise exposures to jumbo rock drill crew members cited as items 3(a) and 3(b) in inspection number 018224105 were respectively 330% and 350%. The only technically feasible engineering control is the retrofit of each jumbo with an acoustical cab per Figure A item 4 which would benefit only two of the six to eight crew members. Such an approach would not meet the Field Operations Manual criteria for economic feasibility given the facts that the time-weighted exposures were less than 400% and the company has instituted a hearing conservation program as comprehensive as that required in the general industry noise standard. Therefore, such a control would be economically infeasible as long as the hearing conservation program demonstrates the absence of occupationally-related hearing loss in the noise-exposed workers. Control of the drilling noise itself is not technically feasible to control at the point of origin. Since all of these jumbo units were purchased second hand and are very old and prone to frequent breakdowns, it would be advisable for (contractor) to consider retiring this equipment as soon as is practical and to replace them with modern jumbos having acoustical cabs, hydraulic and pneumatic systems manufacturer-controlled by muffling or enclosure.

The present mechanical ventilation system to remove nuisance dust from the tunnel work areas seems to be more than adequate. Pre citation dust levels were 75 mg of total dust per cubic meter of air sampled. After installation of the tunnel ventilation system, total dust levels were reduced to 3 mg per cubic meter of air, well within the current OSHA PEL of 15 mg per cubic meter time-weighted over an 8-hour shift.

NOISE CONTROL INVESTIGATION TUNNEL #2**(city), (state)****Introduction:**

On February 13, 1990 the writer in the company of Mr. W, a hygienist from the (city) Area Office, visited the Tunnel Number 2 construction site of (contractor) Joint Venture Contractors located in (city), (state) on the Northeast Extension of the (state) Turnpike. The company was represented by Messrs. W, site safety coordinator, and Mr. N, loss control coordinator. The purpose of the visit was to determine the feasibility of noise control engineering on pneumatic rock drilling machines used to bore the tunnel.

Data Acquisition and Reduction:

Sound level, octave band level, and one-third octave band level measurements were made with an (product) #805B684 equipped with an IVIE IE-2P preamplifier power supply and a Bruel (product). This system can present spectral analysis of sound in real time. The IVIE meter meets IEC standards for impulse-precision sound level measurements and ANSI standards for Type 1 precision measurements. The meter's field calibration was checked before and after data acquisition at the measurement location with a (product) The calibrator has a nominal accuracy of ± 0.5 dB and it is traceable to the National Institute of Standards and Technology reference sound pressure level. The microphone was covered by a polyurethane wind screen during data acquisition.

Observations:

A second vehicular tunnel on the northwest side of the Northeast Extension of the (state) Turnpike at Blue Mountain in (city) is undergoing construction to serve two lanes of south bound traffic. The mountain is solid rock of the first class. Tunneling is ongoing from both the north and south portals; however, the north bore is more advanced than the south bore. The basic construction procedures follow the protocol: shoot explosive charges (15 to 20 minutes), muck in 8 yard scoops (2 to 3 hours), spray shotcrete or apply rock bolts (2 to 16 hours), drill the new face with multiple jumbos (1 and 1/2 to 2 hours), then repeat this process. The duration of shotcreting is dictated by the class of rock in the bore.

All observations were made in the north portal. Initially one jumbo rock drill equipped with one boom was in operation positioning itself at the working face. A second single boom jumbo rock drill was entering the bore. The tunnel at this point was solid hard rock. About 25 feet from the face, the background sound level was 95 dBA. Figure 1 presents the octave band spectrum of this ambient tunnel noise. The heavy black line denotes the OSHA permissible exposure level (PEL) of 90 dBA time-weighted for 8-hours as a function of frequency. The octaves that fall above this line contribute to the sound level in excess of 90 dBA. The background or ambient sound level of 95 to 96 dBA was generated by the idling of four jumbos, two near the face and two to the rear plus an idling self propelled work platform and the shaft ventilation system.

All the jumbos operating in the north bore were equipped with roll over protection and full roofs but not with tight-fitting acoustical cabs. All the units are very old and break down with periodic regularity. Each unit carries one pneumatically-operated rock drilling boom, a rarity by today's tunnel engineering standards where most jumbos have from 3 to 7 booms. During drilling operations each jumbo is manned by 6 to 8 men. Two men are in the jumbo's cab whilst 4 to 6 men remain outside the cab at different locations. At 50 feet from the face the sound level was 106 dBA during rock drilling into granite. Between two operating jumbos the sound level was 110 dBA. Figure 2 presents the octave band spectrum at this location. In the cab of one of the jumbos it was 112 dBA. At the end of one of the booms the sound level was 114-115 dBA. The drills are water cooled. The peak sound pressure level (SPL) at the boom end was 120 dB and predominant pure tones about 80 Hz and 125 Hz were present. Due to extreme wetness and water spray from the rock drills sound levels at the actual working face were not obtained though they would have been the highest levels in the tunnel. Most of the high noise levels during drilling operation was due to the actual drilling of rock rather than the unmuffled pneumatics.

Discussion:

Noise generated by the jumbo rock drills is produced by the point of operation rock drill bit, unmuffled pneumatics, and general mechanical noise. From the writer's observations in the Tunnel #2, most of the excessive noise is produced by the actual rock drilling itself with the air or pneumatic and mechanical sources being secondary. Figures 3A and 3B present the generic noise controls and sources of information for jumbo drills. Retrofit of each jumbo with an acoustic cab would bring the daily noise doses for the two employees who work in the cab area of the jumbo within permissible sound levels of Table D-2 of the noise standard. However, Figure 3A demonstrates that this approach is far from inexpensive keeping in memory that these costs are in 1983 dollars. Also this approach does nothing for the 4 to 6 crew members who must work outside the acoustic cab. This writer feels that the principal source of noise exposure is the drilling of the rock itself which is inherent in the operation and technically infeasible to control. Whilst it is good practice to muffle or manifold the air exhaust as illustrated in Figure 4, control of air noise on the 4 jumbo units observed by the writer would not reduce the daily noise exposures for the drilling crew since the drilling noise was 10 to 15 dBA above the lesser sources.

Hearing Conservation:

Since being cited for the absence of a continuing effective hearing conservation program, 19 CFR 1926.52(d)(1), (contractor) has instituted a comprehensive hearing conservation program that includes fitting and enforcement of hearing protection, initial and annual training in the need, care, and use of ear protection, hazards of noise exposure, and the purpose of audiometric testing. Currently 144 employees have received their initial noise training. Except for five new hires, all company employees exposed at or above a daily noise dose of 100% or 90 dBA time-weighted for 8 hours have received their baseline audiogram. Current employees were tested via a van from Sacred Heart Hospital of (city) by certified audiometric technicians under the supervision and direction of Dr. P., CCC-A. Baseline audiograms and otological histories were obtained at that time. New hires will receive their baseline audiogram and otologic history as part of their initial physical exam. All employees working in the tunnels are required to wear Zee NRR II foam ear plugs with a lab NRR of 35 dB. All employees who work within 100 feet of the jumbos must wear dual protection. Dr. P is the custodian of the audiometric, otologic, and calibration data.

Conclusions:

The noise exposures to jumbo rock drill crew members cited as items 3(a) and 3(b) in inspection number 018224105 were respectively 330% and 350%. The only technically feasible engineering control is the retrofit of each jumbo with an acoustical cab per Figure 3A item 4 which would benefit only two of the six to eight crew members. Such an approach would not meet the Field Operations Manual criteria for economic feasibility given the facts that the time-weighted exposures were less than 400% and the company has instituted a hearing conservation program as comprehensive as that required in the general industry noise standard. Therefore such a control is economically infeasible. Control of the drilling noise itself is not technically feasible to control at the point of origin. Since all of these jumbo units were purchased second hand and are very old and prone to frequent breakdowns, it would be advisable for (contractor) to consider retiring this equipment as soon as is practical and to replace them with modern jumbos having acoustical cabs, hydraulic, and pneumatic systems manufacturer controlled by muffling and enclosure.

11 April 1990

Document Attachments include the following Figures/illustrations:

Figure 1: Octave Band Spectrum in Real Time for Background Noise in the Tunnel when one Jumbo Unit is at Idle.

Figure 2: Octave Band Spectrum in Realtime for the Noise Level Between Two Operating Jumbo Rock Drills.

Figures 3A and 3B: Jumbo-Mounted Percussion Drills- Noise Quieting Treatments, Costs and Status.

Figure 4: Dateline: MSHA, newsletter excerpt regarding reduction of noise from pneumatic drills.

VENTILATION INVESTIGATION TUNNEL #2

(city), (state)

Introduction:

On February 13, 1990 the writer in the company of Mr. W, a hygienist from the (city) Area Office, visited the Tunnel Number 2 construction site of (contractor) joint Venture Contractors located in (city), (state) on the Northeast Extension of the (state) Turnpike. The company was represented by Messrs. Mr. W, site safety coordinator, and Mr. N, loss control coordinator. The purpose of the visit was to determine the feasibility of local mechanical ventilation to ventilate the face and bore to meet the requirements of the air contaminants standard, 29 CFR 1926.57(b).

Observations:

A second vehicular tunnel on the northwest side of the Northeast Extension of the (state) Turnpike at Blue Mountain in (city) is undergoing construction to serve two lanes of south bound traffic. The mountain is solid rock of the first class. Tunneling is ongoing from both the north and south portals; however, the north bore is more advanced than the south bore. The basic construction procedures follow the protocol:

shoot explosive charges (15 to 20 minutes), muck in 8 yard scoops (2 to 3 hours), spray shotcrete or apply rock bolts (2 to 16 hours), drill the new face (1 and 1/2 to 2 hours), then repeat the process. The duration of shotcreting is dictated by the class of rock in the bore.

During Mr. W's compliance visit on September 25, 1989 an employee sampled for a full shift was exposed to a time-weighted average nuisance dust of 75.07 mg per cubic meter of air. At the time there was no mechanical ventilation at the face or anywhere in the tunnel. Between Mr. W's inspection visit and the writer's visit, the company has installed local exhaust ventilation at both working faces. During the writer's visit only the north bore was evaluated. A large ceiling mounted circular duct extends from the north portal to within 50 feet of the working face. Substitute blowers are currently in use because the original blowers were inadvertently installed backward and blew up when initial start up was attempted.

Velometer measurements were made during the visit by Mr. W. He used an Alnor Senior sn:ANG102807 to collect data. At the face the air movement was 200 fpm and 300 feet back in the bore, the air movement was 300 to 400 fpm. At a later date Mr. W returned to do full-shift sampling. His results were 3 mg per cubic meter of air, nuisance dust - well within the OSHA permissible exposure level (PEL) of 15 mg per cubic meter. Therefore, the current local exhaust ventilation system seems to meet the OSHA standard. However, in a recent Philadelphia Inquirer article, it was noted by this writer that in the two photographs published, ambient dust levels in the bore were high, probably in excess of 15 mg for total dust. Also the article noted that the fans were not in operation that day due to maintenance problems. Care must be taken to keep the fans in good operating condition lest the air concentrations exceed OSHA PEL's.

Conclusions:

The present mechanical ventilation system to remove nuisance dust from the tunnel work areas seems to be more than adequate. Pre citation dust levels were 75 mg of total dust per cubic meter of air sampled. After installation of the tunnel ventilation system total dust levels were reduced to 3 mg per cubic meter of air, well within the current OSHA PEL of 15 mg per cubic meter time-weighted over an 8-hour shift.

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DOE Interpretations Guide to OSH Standards

July 1, 1992

RECORD ID 92080401

STANDARD NUMBER 1926.52(d)(1); 1926.101(b)
INFORMATION DATE 19920804

ABSTRACT This is in response to a letter of July 1 requesting clarification of what constitutes a hearing conservation program under the construction standard for occupational noise exposure. OSHA has determined that an effective hearing conservation program consists of noise monitoring, controls for excessive noise, hearing protectors, employee training, baseline and annual audiometry, hearing loss prevention procedures, and recordkeeping.

INTERPRETATION 29 CFR 1926.52(d)(1); 1926.101(b)

August 4, 1992

Dear Mr. L:

This is in response to your letter of July 1, requesting clarification as to what constitutes a hearing conservation program under the construction standard for occupational noise exposure, 29 CFR 1926.52.

The Occupational Safety and Health Administration (OSHA) has determined that an effective hearing conservation program consists of the following elements:

1. Monitoring of employee noise exposures,
2. The institution of engineering, work practice, and administrative controls for excessive noise,
3. The provision of each overexposed employee with an individually fitted hearing protector with an adequate noise reduction rating,
4. Employee training and education regarding noise hazards and protection measures,
5. Baseline and annual audiometry,
6. Procedures for preventing further occupational hearing loss by an employee whenever such an event has been identified.
7. Recording Keeping

Every construction industry employer's hearing conservation program must incorporate as many of the above elements as are feasible.

We appreciate the opportunity to clarify this matter for you.

RECORD ID 2269

STANDARD NUMBER 1926.54(j)
INFORMATION DATE 820201

ABSTRACT

This interpretation letter addresses application of the construction standard for lasers. The OSHA construction standard 29 CFR 1926.54 takes no cognizance of different classes of lasers in use in determining exposures as stated in 1926.54(j). All of the provisions technically apply to all uses of lasers in the construction industry. However, if the specific exposure levels of the standard are not violated and the employees are not subjected to a hazard, the violations would generally be regarded as "de minimis."

INTERPRETATION

29 CFR 1926.54(j)

FEB 1, 1982

This is in response to your letter of November 17, concerning the OSHA construction industry standard for laser use (29 CFR 1926.54).

As you have indicated, the standard takes no cognizance of different classes of lasers. All of the provisions of the standard technically apply to all uses of lasers in the construction industry. However, Class I lasers are defined to present no hazard. Therefore, violations of those paragraphs which should really only apply to higher class lasers should, in the case of Class I lasers, be regarded as "de minimis," which means there would be no citation, no penalty, and no compliance date. Although the language of the regulation is violated, employees are not being subjected to a hazard. (See section 9(a) of the Occupational Safety and Health Act of 1970 enclosed.)

Since your Model EL-1 electronic level is a Class I laser product in accordance with 21 CFR 1040.10, OSHA must generally regard nominal violations of 1926.54 associated with the use of this product to be only "de minimis." However, the specific exposure limits of paragraph (j) of the OSHA standard do not depend on the laser's class and will continue to have full effect. The OSHA standard is more restrictive than the Bureau of Radiological Health (BRH) standard because the allowable power density for BRH-Class I visible lasers is higher than the OSHA limit of 1 microwatt per square centimeter (designated for "direct staring") over the whole BRH standard's time interval of 1 to 10,000 seconds, except at the upper interval limit of 10,000 seconds. Since the term "direct staring" could easily be interpreted to apply to viewing times much less than 10,000 seconds (166 minutes), in such cases, the OSHA standard would be exceeded by a Class I product. On the other hand, the OSHA limit of 1 milliwatt per square centimeter for "incidental viewing" equals the BRH Class I limit for a 10-second viewing time. Therefore, for "incidental viewing" times of less than 10 seconds, the OSHA standard is more restrictive, and incidental viewing normally implies viewing times of less than 10 seconds. In each case, these comparisons have used the limiting energy of 3.9 millijoules from the BRH standard, Table I-A. Violations of the exposure limits of paragraph (j) of the OSHA standard would mean that simultaneous violations of other parts of the standard could not be regarded as "de minimis."

It apparently remains to be determined whether an exposure above one microwatt per square centimeter for, for example, five minutes is properly either a hazard to a person's eyes or legitimately regarded as Class I, as it is defined. We hope to resolve this discrepancy between the BRH and OSHA standards in the near future.

Using the values you specified over the telephone of one milliwatt beam power over a three-quarter inch beam diameter, your Model EL-1 would produce a power density of only 0.35 milliwatt per square centimeter for "incidental viewing." Therefore, according to the OSHA standard, the laser is not hazardous even without any protection. As a result, the other provisions of 29 CFR 1926.54 cannot serve to protect anyone from a hazard and, therefore, any violations of requirements of those paragraphs would be regarded as "de minimis" violations. Please note that such a finding is not the same, legally or technically, as a citation from OSHA for failure to comply with the regulations. Citations are given for subjecting employees to risk through failure to comply with the regulations. A "de minimis" notice is a finding by OSHA that despite the language of the regulation, employees are not being put at risk.

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DOE Interpretations Guide to OSH Standards

July 1, 1992

RECORD ID 92091701

STANDARD NUMBER 1926.54(j)
INFORMATION DATE 19920917

ABSTRACT Although the degree of hazard associated with low power lasers used in the construction industry is relatively low and Class I lasers are typically not hazardous, the OSHA construction industry standard for lasers 1926.54, does not differentiate with respect to class of lasers and, thus, all lasers are covered by the standard. However, except for violations based on 1926.54(j), violations of 1926.54, in the case of the Class I lasers, are regarded by OSHA as "de minimis".

INTERPRETATION 29 CFR 1926.54(j)

SEP 17 1992

Dear Mr. Z:

Your July 9 letter to Mr. J. M., Deputy Director of the Occupational Safety and Health Administration's (OSHA) Directorate of Health Standards Programs, has been forwarded to this office for response. I apologize for the delay in responding to your inquiry about OSHA's policy regarding Class I lasers.

Although the degree of hazard associated with low power lasers used in the construction industry is relatively low and Class I lasers are typically not hazardous, the OSHA construction industry standard for lasers at 29 CFR 1926.54 does not differentiate with respect to class of lasers and, thus, all lasers are covered by the standard. However, except for violations based on 1926.54(j), violations of 1926.54, in the case of the Class I lasers, are regarded by OSHA as "de minimis" which means there will be no citations, no penalty, and no abatement date issued for these violations found during an inspection. However, the specific exposure limits of paragraph (j) of the OSHA standard do not depend on the laser's class and will continue to have full effect. Consequently, if a violation of paragraph (j) is found, then the de minimis policy no longer applies and all other provisions of 1926.54 may be cited and penalties and abatement dates may be issued.

If you have any further questions, contact Mr. R. F. G. or Mr. D. R. C. in the Office of Construction and Maritime Compliance Assistance at (202) 219-8136.

RECORD ID

3701

STANDARD NUMBER
INFORMATION DATE1926.55(b); 1926.59(d)(1); 1910.134(c); (e)(2)
900925

ABSTRACT

This memo addresses enforcement by OSHA in cases concerning employees engaged in the removal of lead-based paint from HUD public housing projects. OSHA believes that the lead exposures in question are subject to the general duty clause, Section 5(a)(1) of the OSH Act and will issue citations for work observed for which commonly known feasible precautions were not considered. The Department of Housing and Urban Development (HUD) has entered into contracts with private contractors for the removal of toxic, lead-based paint from numerous housing projects throughout the country. Before letting these contracts, HUD consulted with OSHA regarding ways in which the employees could be protected from harmful lead exposures. OSHA concluded that its existing standard was inadequate to deal with the exposures likely to occur during lead-based paint removal.

INTERPRETATION

29 CFR 1926.55(b); 1926.59(d)(1); 1910.134(c); (e)(2)

SEP 25, 1990

MEMORANDUM**SUBJECT: HUD Lead-based Paint Removal Project**

This is in response to your request for legal advice concerning what requirements OSHA may enforce under the Occupational Safety and Health Act to protect employees engaged in the removal of lead-based paint from public housing projects. As we will discuss, we believe that the lead exposures in question are subject to the general duty clause, section 5(a)(1) of the OSH Act.

Background:

The Department of Housing and Urban Development (HUD) has entered into contracts with private contractors for the removal of toxic, lead-based paint from numerous housing projects throughout the country. Before letting these contracts, HUD consulted with OSHA regarding ways in which the employees of these contractors could be protected from harmful lead exposure. Reviewing the matter, OSHA concluded that its existing standard for lead exposure in construction was inadequate to deal with the exposures likely to occur during lead-based paint removal projects. Accordingly, OSHA developed for HUD a list of recommended safety precautions for lead abatement which were consistent with generally recognized industrial hygiene practices. The recommendations include provisions for work practices, protective clothing, respirators, hygiene facilities, employee training and medical surveillance. We are informed that OSHA's recommendations were subsequently included as contract requirements in all current HUD paint removal contracts.

The OSHA standard presently applicable to lead exposures in construction is the national consensus standard adopted in 1971 under Section 6(a) of the Act. That standard, adopted for construction at 29 CFR Section 1926.55(a), consists only of a permissible exposure level (PEL) of 200 $\mu\text{g}/\text{m}^3$. This PEL is widely recognized by industrial hygiene professionals as too permissive to provide adequate health protection for construction employees, and OSHA has stated its intention to reduce the lead PEL for construction as part of its ongoing PEL revision project. Additionally, the existing standard provides only an exposure limit and fails to include other protective measures such as requirements for medical surveillance and personal protective equipment. The Advisory Committee for Construction Safety and Health has recently recommended adoption of a comprehensive Section 6(b) lead standard for construction.

Enforcement of the HUD guidelines:

If in fact the OSHA guidelines have been incorporated in HUD contracts, we are aware of no reason why they could not be enforced by HUD, under general procurement law, in the same manner as any other federal contract provision. However, HUD has apparently inquired whether OSHA has any regulatory

authority which could be brought to bear on contractors who disregard these requirements. Because these guidelines are essentially a list of commonly-known, generally feasible precautions for abating the widely recognized hazards of lead paint exposure, we believe that HUD contractors who fail to implement these contract requirements could potentially be cited under the general duty clause, section 5(a)(1) of the OSH Act.

Normally, an employer cannot be cited for violating the general duty clause with respect to hazards which, like lead hazards in construction, are already addressed by existing OSHA standards. (company), 8 BNA-OSHC 2077 (1980); (company), 1 BNA-OSHC 1263 (1973). However, a highly significant exception to this rule was recognized by the D.C. Circuit in *UAW v. (Company GD), Land Systems Div.*, 815 F.2d 1570 (D.C. Cir. 1987). In (Company GD), the court ruled that if an employer knows a particular safety standard is inadequate to protect his workers against the specific hazard it purports to address, the employer has a duty to take whatever measures may be required under Section 5(a)(1), over and above those mandated by the standard, to safeguard its workers, *id.* at 815 F.2d 1577.

Like the Freon standard at issue in (Company GD), the construction lead standard is an outdated Section 6(a) requirement, widely regarded by safety and health professionals as inadequately protective of employees. Like the employer in (Company GD), HUD's paint removal contractors can be persuasively shown to have actual knowledge of the standard's inadequacies, since they have contractually obligated themselves to comply with safety procedures significantly greater than those required by the standard. Thus, we feel that a plausible case can be made under (Company GD) for the issuance of citations under the general duty clause to paint removal contractors who expose their employees to serious physical harm by violating the safety provisions of their agreements with HUD.

It is important to note that employers can be cited under 5(a)(1) for failing to render their workplace free of the recognized hazards of exposure to dangerous concentrations of lead, not for violating the HUD safety procedures. Thus, an employer's violation of multiple guideline provisions may not give rise to multiple citation items as would be the case under a Section 6(b) standard. In every case, OSHA must prove the elements of a general duty clause violation. The HUD procedures are useful only as evidence that the employer had been put on notice of the hazard, which can be shown to be a recognized one within the lead abatement industry. Also, the contractor's acceptance of the HUD contract can be offered as proof of feasibility of the abatement measures specified in the guidelines.

We should add that, depending on the facts which may emerge in specific cases, there are OSHA standards other than 29 CFR 1926.55 which are applicable to some phases of HUD paint-removal operations, two prime examples being the construction hazard communication standard at 29 CFR 1926.59 and the respiratory protection standard at 29 CFR 1926.103. When available, such standards should of course be cited in lieu of the general duty clause.

We can predict two other likely employer defenses, both of which we feel can be overcome. Employers may argue that HUD safety requirements for its contractors preempt OSHA enforcement under Section 4(b)(1) of the OSH Act. However, mere exercise by another agency of procurement authority does not trigger Section 4(b)(1) preemption, see *(E-B Company) v. OSHRC*, 717 F.2d 1419, 1421 (D.C. Cir. 1983) cert. den. 466 U.S. 937 (1984); (company), 3 BNA-OSHC 1650 (1975). It could also be argued that OSHA's use of the HUD guidelines to impose duties on employers is an impermissible end run around the Act's rulemaking requirements and an improper use of the general duty clause. But there is some precedent for the use of 5(a)(1) to provide interim employee protection while OSHA is actively considering a new standard, as is the case here. Cf. *(AS&R Company) v. OSHRC*, 501 F.2d 504, 511-13 (8th Cir., 1974) (affirming citations under Section 5(a)(1) prior to effective date of original lead standard).

OSHA Instruction CPL 2-2.40

SEP 1, 1987

SUBJECT: Inspection Procedures for Both 29 CFR 1910.1001 and 29 CFR 1926.58 -- Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite; Final Rules, General Industry and Construction Standards, Respectively

- A. Purpose.** This instruction establishes policies and provides clarification to ensure uniform enforcement of the above stated standards.
- B. Scope.** This instruction applies OSHA-wide.
- C. References.**
 - 1. General Industry Standards, 29 CFR 1910.1001; 1910.134(b) , (d) , (e) and (f) ; 1910.141 (e) and (d)(3); 1910.1101 and 1910.20.
 - 2. OSHA Instruction CPL 2.45A, April 18, 1983, Field Operations Manual (FOM).
 - 3. OSHA Instruction CPL 2-2.30, November 14, 1980; CPL 2-2.32, January 19, 1981; and CPL 2-2.33, February 8, 1982.
- D. Cancellation.** OSHA Instructions CPL 2-2.2, October 30, 1978, CPL 2-2.21A, February 18, 1981, and CPL 2-2.21A CH-1, June 3, 1985, are canceled.
- E. Action.** OSHA Regional Administrators and area Directors shall ensure that the guidelines presented in this instruction are followed. The Directorate of Field Operations shall provide whatever support is necessary to assist the Regional Administrators and Area Directors to enforce the asbestos, tremolite, anthophyllite, and actinolite standard.
- F. Federal Program Change.** This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:
 - 1. Ensure that this change is forwarded to each State designee.
 - 2. Provide a copy of the Federal Register notice to the State designee upon request.
 - 3. Explain the technical content of the Federal Register notice to the State designee upon request.
 - 4. Ensure that State designees acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include the State's intention to follow the enforcement policies described in this instruction, or a description of the State's alternative policy which is "at least as effective" as the Federal policy.
 - 5. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State personnel. Routine monitoring activities shall also be used to determine if this change has been implemented by actual performance.
- G. Background.** The organization of the new asbestos standards are similar to many other OSHA expanded health standards. Published on June 20, 1986, these standards replace the existing standard recodified as 29 CFR 1910.1101 and add a separate standard for construction, 29 CFR 1926.58.
 - 1. The new asbestos standards incorporate a much improved set of criteria against which employers can be evaluated on compliance inspections. Every attempt has been made to develop a clear standard that will result in uniform application. The purpose of this instruction is to supplement the guidance that is already present in the two standards.

OSHA Instruction CPL 2-2.40 (cont.)

2. Compliance Safety and Health Officers (CSHOs) must look to the standards for much of the guidance necessary for the implementation of these standards. The standards are generally written in specification language providing clear goals.
- H. Inspection Guidelines. The following guidance provides a general framework that is designed to assist the CSHO with inspections:
1. CSHO Personal Protective Equipment (PPE) and Decontamination Procedures.
 - a. Respiratory Protection.
 - (1) Respirators will be selected in accordance with Table D-4 of 29 CFR 1926.58 and Table 1 of 29 CFR 1910.1001, or in accordance with any regional guidance which requires a more protective respirator.
 - (2) If the CSHO uses negative-pressure respirators to perform asbestos inspections, the Regional Administrator must ensure that semiannual fit tests are provided in accordance with 29 CFR 1926.58(h)(4)(ii) and 1910.1001(g)(4)(ii).
 - b. Protective Clothing.
 - (1) For inspections conducted under either standard requiring the CSHO to enter into a regulated area or negative-pressure enclosure, disposable coveralls, head coverings, foot coverings, and gloves shall be worn.
 - (2) Clothing such as bathing suits may be worn beneath the disposable garments, for circumstances where the CSHO has obtained the employer's permission to use his or her decontamination facilities, and the decontamination area complies with 29 CFR 1926.58(j) or 1910.1001(i).
 - c. Decontamination Procedures.
 - (1) For any investigation where the presence of airborne asbestos fibers in concentrations above the action level is suspected, only experienced and properly trained CSHOs shall perform the site evaluation. Inexperienced or untrained CSHOs shall submit a referral to his or her supervisor in the event that the presence of asbestos is discovered during the course of an inspection.
 - (2) If the site evaluation indicates that personal protective equipment is required to conduct the inspection, then the CSHO shall determine if two CSHO's will be necessary to conduct the inspection and to perform the requisite decontamination procedures.
 - (3) For OSHA inspections of removal, demolition, and renovation operations, the CSHO shall not enter into the negative-pressure enclosure unless it is absolutely necessary to document a violation of an OSHA standard.
 - (4) If it is determined to be necessary to enter into the negative-pressure enclosure, the CSHO shall enter through the employer's decontamination area's clean room. If the employer denies the CSHO entry through the decontamination unit, then the CSHO shall consider this to be a denial of entry and the requisite warrants shall be obtained.
 - (5) Prior to entering into the negative-pressure enclosure or regulated area, the CSHO shall determine if the employer has a decontamination area which complies with 29 CFR 1926.58(j) or 1910.1001(i), and obtain the employer's permission to use the decontamination unit. Upon exiting from the negative-pressure enclosure or regulated area, the CSHO shall follow the exiting procedures required by 29 CFR 1926.58(j)(2)(vi) or 1910.1001(j)(2)(i), to avoid contaminating the employer's clean room.

- (6) The Area Director shall be consulted if the CSHOs have difficulty complying with the required decontamination procedures.
 - (7) For construction activities not requiring hygiene facilities (viz.: small-scale, short-duration operations) or where the employer's hygiene facilities are inadequate, or where the employer refuses to allow the CSHO to use their hygiene facilities; CSHOs shall first use a HEPA-equipped vacuum to remove gross contamination from their protective clothing and equipment. Further suppression of the contaminants may be achieved by applying a water mist to the entire outer surface of the protective clothing. The disposable items of PPE shall then be removed and placed in 6-mil polyethylene bags, sealed, labeled, and disposed of following the applicable Federal, State or local guidelines. Non-disposable equipment (e.g., respirators, pumps, etc.) where feasible, shall be wiped off with pre-moistened towelettes, or sprayed with water and placed in polyethylene bags, for transport, if further washing is required. Any exposed skin areas shall be wiped clean with pre-moistened towelettes. Upon the removal of contaminated PPE, fresh disposable coveralls shall be donned by the CSHO prior to travel to a remote location for showering.
2. **Scope and Application.** The construction standard applies to all operations specified in 29 CFR 1926.58 (a) , which includes but is not limited to demolition, renovation, and maintenance of structures, as well as, removal of asbestos, tremolite, actinolite or anthophyllite containing materials. The application of the standard is not restricted by the SIC code of the employer. Therefore, if a manufacturer uses his employees to remove asbestos from a building, piping system, boiler system or the like, those employees are covered under the asbestos standard for construction. The general industry standard applies to the manufacturers of products which contain asbestos, tremolite, actinolite, or anthophyllite, automotive repair, ship repair and other general exposures.
 3. **Regulated Areas.** Paragraph 29 CFR 1926.58(e) (1) requires employers to establish regulated areas where airborne concentrations of asbestos, tremolite, anthophyllite, actinolite or a combination of these minerals exceed or can be expected to exceed the PEL. Paragraph 29 CFR 1910.1001(e) of the General Industry Standard requires the same.
 - a. The construction standard describes two distinctly different types of regulated areas which must be established based on the type of work being performed. Employers performing general construction operations, such as the cutting of asbestos-cement sheets, the lathing of asbestos-cement pipes or the removal of asbestos-containing floor tiles, are required to establish regulated areas in accordance with 29 CFR 1926.58(e)(1) and demarcated in accordance with 29 CFR 1926.58(e)(2).
 - b. 29 CFR 1926.58(e)(6) requires employers performing asbestos removal, demolition, and renovation operations to establish negative-pressure enclosures before starting their work, wherever feasible. Negative-pressure enclosures are considered to be feasible in all situations, except where space limitations prohibit the construction of the enclosure, or where the erection of a negative-pressure enclosure would create a greater hazard (e.g., toxic gases present in area). The enclosure must be established and managed by a competent person as defined in 29 CFR 1926.58(b) and (e)(6)(iii).
 - c. 29 CFR 1926.58(e)(6)(iv) grants exceptions from the requirements of establishing negative-pressure enclosures and designating a competent person, if the operation is small-scale and of short duration. For the purposes of this standard a "small-scale, short-duration" operation is defined as:
 - (1) Maintenance or renovation tasks, where the removal of asbestos-containing materials is not the primary goal of the job (e.g., repairing a valve which entails the removal of asbestos, installing electrical conduit which must be fastened to asbestos-cement siding, etc.).

OSHA Instruction CPL 2-2.40 (cont.)

- (2) Activities where employees exposures to asbestos can be kept below the action level via worker isolation techniques, such as glove bags or other methods described in Appendix G.
 - (3) An operation which has been included in the employer's asbestos maintenance program (as required in Appendix G) of all employers who are claiming an exemption from the requirements of 29 CFR 1926.58(e)(6).
 - (4) Non-repetitive operations (viz.: not a series of small-scale jobs, which if performed at one time would have resulted in a large-scale removal).
- d. The CSHO shall evaluate the employer's program for establishing the requisite regulated areas under both standards by examining the following:
- (1) If the employer has designated a competent person to setup and manage the regulated areas in accordance with 29 CFR 1926.58(e)(6)(ii) (A-H) (for construction only).
 - (2) If the employer's initial monitoring data, or objective data was obtained in accordance with the prescribed sampling and analytical methods.
 - (3) If monitoring data from a similar work situation is used in lieu of monitoring the current worksite, the CSHO must evaluate and compare the reported conditions and data, and conclude whether or not it is acceptable.
 - (4) If the employer has failed to establish a negative-pressure enclosure, the CSHO must document that such an enclosure is in fact feasible, and that the project is not a small-scale, short-duration operation. If the employer asserts that the activities are small-scale, short-duration, then the CSHO shall review the employer's asbestos maintenance program required by Appendix C of the standard (construction only).
4. Pre-entry Appraisal. In situations where the work activities apparently involve asbestos and the employer has not done the initial monitoring or followed any of the requirements of 29 CFR 1926.58, or 29 CFR 1910.1001, the CSHO shall obtain a bulk sample of the material(s) that are suspected of being asbestos and obtain an expedited analysis of the material(s). An expedited analysis may be achieved by:
- a. K-2 tests.
 - b. Contracting with a local laboratory.
 - c. Requesting an expedited analysis from the Salt Lake City Analytical Laboratory.
 - d. If the results are positive, the CSHO shall consider this to be an imminent danger situation and follow the procedures established in OSHA Instruction CPL 2.45A, Chapter VII.
5. Establishing the Presence of Asbestos. In cases where there is a delay in obtaining bulk samples or in having them analyzed alternate methods shall be used to verify the presence of asbestos.
- a. Alternate methods for identifying the presence of asbestos include:
 - (1) The review of building plans.
 - (2) Previous inspection files by OSHA and other State, local and Federal agencies.
 - (3) Age of building.
 - b. The methods discussed above shall be used only when basis for an imminent danger notice is being investigated.

OSHA Instruction CPL 2-2.40 (cont.)

- 6. Hygiene Facilities and Practices.** Shower facilities erected in accordance with the construction asbestos standard shall be considered to be feasible except:
 - a.** Where space limitations prohibit locating the shower facilities adjacent to the equipment room.
 - b.** Where water is not available at the job-site.
 - c.** In these situations, however, the use of mobile decontamination units (trailers) equipped with an equipment room, a shower room, and a change room may be appropriate.
- 7. Stays.** Enforcement of 29 CFR 1910.1001, and 29 CFR 1926.58 as they apply to non-asbestiform tremolite, anthophyllite, and actinolite has been administratively stayed until July 21, 1988. In the interim, the non-asbestiform varieties of tremolite, anthophyllite, and actinolite are covered under the old asbestos standard which has been recodified as 29 CFR 1910.1101. There have been no judicial stays issued regarding this standard.

RECORD ID 1702

STANDARD NUMBER 1926.58(a)(3)
INFORMATION DATE 881001

ABSTRACT The asbestos standard for construction applies when a maintenance project involves removal of asbestos-containing pipe insulation, even though the project may be located inside a manufacturing facility and "in-house" workers are used to perform the asbestos removal.

INTERPRETATION 29 CFR 1926.58(a)(3)

OCT 10, 1988

This is in response to your letter of July 8, regarding the applicability of the asbestos standard for construction (29 CFR 1926.58) to in-house maintenance, repair or renovation operations in manufacturing facilities. We apologize for the delay in responding to your inquiry. Your understanding is correct, that the applicability of the asbestos standards for construction and general industry are process oriented.

In 29 CFR 1926.58(a), construction is defined to include but is not limited to the following:

- (1) Demolition or salvage of structures where asbestos, tremolite, anthophyllite, or actinolite is present;
- (2) Removal or encapsulation of materials containing asbestos, tremolite, anthophyllite, or actinolite;
- (3) Construction, alteration, repair, maintenance, or renovation of structures, substrates, or portions thereof, that contain asbestos, tremolite, anthophyllite, or actinolite;
- (4) Installation of products containing asbestos, tremolite, anthophyllite, or actinolite;
- (5) Asbestos, tremolite, anthophyllite, and actinolite spill/emergency cleanup; and
- (6) Transportation, disposal, storage, or containment of asbestos, tremolite, anthophyllite, or actinolite or products containing asbestos, tremolite, anthophyllite, or actinolite on the site or location at which construction activities are performed.

Thus, if a maintenance project involved removal of asbestos containing pipe insulation, the construction standard would apply even though the project may be located inside of a manufacturing facility and "in-house" workers were used to perform the asbestos removal. The scope of the asbestos standard for construction is not in any way limited by standard industrial classification (SIC) code.

The general industry standard applies when the source of asbestos exposure is related to a production process. For example, if an employee performs maintenance on machinery which produces gaskets that contain asbestos, and is exposed to airborne concentrations of asbestos in performing these duties, then this employee would be covered under the general industry asbestos standard 29 CFR 1910.1001. Thus it is possible for both standards to be applied in a single facility.

ATTACHMENT: The following interpretation (Record ID 3856) is included as supplemental information to this first instance of OSHA Standard 1926.58.

RECORD ID 3856

STANDARD NUMBER 1910.1001(l)(4); 1926.58(j)(3)
INFORMATION DATE 900716

ABSTRACT This interpretation provides a clarification to 1910.1001(l)(4) and 1926.58(j)(3). OSHA prohibits smoking in areas where occupational exposure to asbestos takes place. Employees who work in or near areas where asbestos abatement and renovation activity are ongoing are prohibited from smoking even though they do not disturb or handle asbestos. Employees are prohibited from smoking when small amounts of airborne fibers are being created by employees activities or are drawn from an adjacent area into the work zone.

INTERPRETATION 29 CFR 1910.1001(l)(4); 1926.58(j)(3)

JUL 16, 1990

This is in response to your letter of April 9, requesting guidance concerning the implementation of the new Occupational Safety and Health Administrator (OSHA) regulation on smoking and occupational exposure to asbestos. The regulations in question are 29 CFR 1910.1001(l)(4) and 29 CFR 1926.58(j)(3). OSHA is prohibiting workplace smoking in areas where occupational exposure to asbestos takes place. The answers to your three questions are as follows:

Question 1:

In a large machinery compartment on a ship undergoing repair there are approximately 30 employees working in the compartment. Only 2 of them are assigned work involving asbestos containing materials. They are conducting a small asbestos removal through the use of a glove bag. Air sample data shows the typical employee in the compartment has 8 hour time weighted average exposure of 0.05 fibers per cubic centimeter. Who in this group of 30 employees must be prohibited from smoking?

Answer:

Under the requirements of 29 CFR 1910.1001(l)(4), all 30 employees must be prohibited from smoking. "Occupational exposure" means asbestos exposure which has its source in the workplace. Thus, employees who work in or near areas where asbestos abatement and renovation activity are ongoing may be occupationally exposed even though they do not disturb or handle asbestos.

Question 2:

A group of employees are assigned work in an area where no asbestos work is being performed. The area does have asbestos insulated piping in it. The employees will work in the area for their full 8 hour shift. Air sample data shows that the typical employee exposure is 0.05 fibers per cubic centimeter. It is determined that the small amount of airborne dust is being created by the employees activities. Are they prohibited from smoking?

Answer:

All employees must be prohibited from smoking since it is determined that the small amount of airborne dust is being created by employees' activities.

Question 3:

A group of employees are assigned work in an area that is free from asbestos materials. However, air sample data shows that asbestos fibers are being drawn into the area from an adjacent area. The data

shows that the typical exposure is 0.05 fibers per cubic centimeter averaged over an 8 hour period. Are these employees considered occupationally exposed and therefore prohibited from smoking?

Answer:

These employees are considered occupationally exposed and therefore must be prohibited from smoking.

All three examples involve occupational exposure to asbestos; therefore, these employees must be prohibited from smoking in these areas. We hope we have addressed your concerns adequately. If you need further assistance, please do not hesitate to contact us.

APR 27, 1990

SUBJECT: Amendments to the Asbestos Standards.

On February 5, 1990, OSHA published an amendment to the asbestos standards which included provisions concerning smoking. One of the provisions states that "the employer shall ensure that employees do not smoke in work areas where they are occupationally exposed to asbestos because of activities in that work area."

This letter is being forwarded to your office for reply due to the potential significance of the response. This office has requested an interpretation concerning this issue in a memorandum to your office dated April 9, 1990. Clarification of "occupational exposure" is needed in the field due to the great variations in interpreting this phrase.

ATTACHMENT: The following information is also included as supplemental information for this first instance of OSHA Standard 1926.58. Source information was cut from Record ID 1893, Standard 1910.1200(f), Information Date 26 July 1989.

SUBJECT: Asbestos Construction Standard, 1926.58

We have recently been reviewing the construction asbestos standard, enforcement directive and policy letters in detail, and would appreciate your thoughts on enforcement policy in the following areas:

1. What is a small - scale, short - duration operation? OSHA Instruction CPL 2-2.40 is not clear in this area. It gives four (4) different definitions: Maintenance or renovation tasks where the removal of asbestos is not the primary goal of the job, activities where exposure can be kept below the action level such as glove bags, an operation included in the employer's asbestos maintenance program and non-repetitive operations. Does this mean that an employer is exempt from negative - pressure enclosure requirements on any job if glove - bagging methods are used for removal? Or does it depend on the amount of asbestos being removed? If so, what amount? Fifty lineal feet or fifty square feet is the cut-off established by the Ohio Department of Health.
2. When is a negative - pressure enclosure required? CPL 2-2.40 says a negative - pressure enclosure is required for all removal, demolition and renovation operations (except where not feasible). In a letter to Mr. B of the Indianapolis Air Pollution Control Division, Mr. T states that negative pressure enclosures are required for all removal, demolition and renovation operations regardless of exposure levels. In a letter to Mr. R. of (Company), Mr. P. states that regulated areas are established only where asbestos concentrations exceed the PEL. The standard says that regulated areas shall be established whenever asbestos concentrations exceed or can reasonably be expected to exceed the standard, and that negative - pressure enclosures are required for all removal, demolition and renovation operations. Can you please provide some guidance in this area?
3. What standard should be cited to require employees to wear protective clothing during asbestos removal, demolition and renovation operation in cases where there are no air monitoring results showing exposure above the PEL? We have been citing 1926.58(i)(3) because 1926.58(i)(1) says that clothing must be provided only for exposure above the PEL. There is no requirement anywhere in the standard requiring protective clothing inside the negative-pressure enclosure, except where air levels are above the PEL. The preamble states that protective clothing is required for all employees working in the abatement enclosure by paragraph (i)(4) (page 22706).

however (l)(4) does not state that it must be provided, but rather that it should be periodically inspected and must be repaired or replaced if damaged.

SOURCE LETTER

July 8, 1988

We would like a clarification on the applicability of the asbestos standard for construction work (1926.58) to in-house maintenance, repair, or renovation work. We understand the standard to be process-oriented, so assume that these operations may be covered by 1926.58. Thanks for your help.

RECORD ID

1719

STANDARD NUMBER
INFORMATION DATE

1926.58(f)(2)(ii); 1926.58(f)(1)(iii)
870908

ABSTRACT

This interpretation letter clarifies that the construction asbestos standard requirement for representative monitoring does not preclude an employer from taking individual exposure measurements of each of his employees. There is no specific number of required samples for all situations. There is not one statistical method to determine whether exposures are below the action level.

INTERPRETATION

29 CFR 1926.58(f)(2)(ii); 1926.58(f)(1)(iii)

SEP 8, 1987

This is in response to your inquiry to Mr. B requesting a clarification of the requirement for representative monitoring under the asbestos standard for the construction industry (29 CFR 1926.58). Please accept my apology for the delay in this reply.

Your specific question is how many samples are required in order that they be "representative." First, it should be noted that the requirement for representative monitoring does not preclude an employer from taking individual exposure measurements of each of his employees. Individual measurement is the ultimate indicator of an employee's exposure, however, the Occupational Safety and Health Administration (OSHA) believes that in many work situations the representative monitoring approach can be more cost-effective to accomplish the objectives of the asbestos standard.

There is no specific number of required samples for all situations. The performance monitoring approach of the standard allows employers to use any personal monitoring strategy which identifies the correct employees for inclusion in applicable asbestos standard programs such as but not limited to training, respiratory protection, medical surveillance and employee notification of exposure results.

Thus, in the scenario you described one could sample all of the employees or one could sample on or more employees reasonably expected to have the highest exposure. If representative sampling is used then the 8-hour time weighted average results of those sampled would be attributed to the appropriate remaining exposed employees for the purposes of complying with the asbestos standard.

Your final question asks what statistical method one can use to determine whether employee exposures are below the action level. Like representative monitoring this is not a mandatory requirement nor is there only one method. Please feel free to discuss any specific statistical method you are proposing with our (City) Regional Office.

RECORD ID 1750

STANDARD NUMBER 1926.58(j)(1)(i); 1926.58(j)(2)(i)
INFORMATION DATE 870526

ABSTRACT Showers need not be provided for employees engaged in small scale, short duration operations. Employees are allowed to clean their protective clothing with a portable HEPA-equipped vacuum before leaving the area where maintenance was performed.

(NOTE: There is a proposed change to small scale short duration projects published in 55 FR 29712).

INTERPRETATION 29 CFR 1926.58(j)(1)(i); 1926.58(j)(2)(i)

MAY 26, 1987

This is in response to your letter of January 20, 1987 requesting an interpretation of the Occupational Safety and Health's (OSHA) Asbestos standard for construction. Please accept my apology for the delay in response. The overwhelming number of letters and telephone calls regarding the asbestos standard has caused unavoidable delays in responding to the public's concern.

Your interpretation is correct, showers do not have to be provided for those employees engaged in small scale, short duration operations. Employees are allowed to clean their protective clothing with a portable HEPA-equipped vacuum before leaving the area where maintenance was performed.

RECORD ID 1828

STANDARD NUMBER 1926.58(h)(4)(ii); 1926.103(a); 1910.134(e)(5); 1910.1001(g)(4)
INFORMATION DATE 880922

ABSTRACT This interpretation addresses the use of powered air-purifying respirators (PAPR's) for asbestos removal in the construction industry. The certified requirement for PAPR's is the same as for the continuous flow supplied air respirators (SAR's). Since the PAPR's are operated under positive pressure, fit testing is not required.

INTERPRETATION 29 CFR 1926.58(h)(4)(ii); 1926.103(a); 1910.134(e)(5); 1910.1001(g)(4)

September 22, 1988

MEMORANDUM

SUBJECT: Powered Air-Purifying Respirators (PAPR) used in Asbestos Abatement

This is in response to your memo of August 22 concerning the use of PAPR's for asbestos removal in the Construction Industry.

A battery operated blower in the PAPR forces the filter air into the breathing zone of the respirator wearer. The certified requirement for PAPR's is the same as for the continuous flow supplied air respirators (SAR's). The term "positive pressure" could be defined as higher than the ambient pressure. Facepiece pressures inside the inlet covering of PAPR's vary over a range of + 0.2 to + 0.8 inch water pressure during inhalation. On the contrary, the pressure inside the facepiece of the non-powered air-purifying respirator is on the negative side during inhalation.

It is true that the PAPR's can go negative pressure under heavy work load. However, it could also happen to the pressure demand SAR's and the positive-pressure self-contained breathing apparatus (SCBA) which have been recommended by the National Institute for Occupational Safety and Health (NIOSH) as the only recommended respirators for asbestos abatement work.

Since the PAPR's are operated under positive pressure, fit testing is not required as far as the OSHA asbestos standards for general and construction industry, 29 CFR 1910.1001 and 1926.58 is concerned.

SOURCE LETTER

August 22, 1988

MEMORANDUM

SUBJECT: Powered Air Purifying Respirators Used in Asbestos Abatement

A clarification is requested on the classification (negative pressure or positive pressure respirator) of the PAPR when used in the asbestos abatement industry. The attached letters from OSHA and NIOSH concerning PAPR's contradict each other.

Attachment

January 6, 1988

NIOSH does not consider powered air purifying respirators (PAPR) to be positive pressure respirators. This is reflected in the assigned protection factors listed in the NIOSH Respirator Decision Logic (copy enclosed) of 25 for loose fitting PAPR and 50 for tight fitting PAPR. I am also enclosing a copy of A Guide to Respiratory Protection for the Asbestos Abatement Industry which states the only respirators recommended by NIOSH for asbestos are pressure demand self contained breathing apparatus or a

combination Type C supplied air respirator with full facepiece operated in the pressure demand mode with an emergency backup pressure demand SCBA.

Enclosure

February 23, 1980

I am responding to your letter dated February 5, 1988, in which you asked if a powered air-purifying respirator is considered a negative-pressure respirator. A powered air-purifying respirator is considered a positive-pressure respirator in the context of the fit testing requirement of 29 CFR 1926.58 (h)(4)(ii). Therefore, qualitative or quantitative face fit testing is not required.

February 5, 1988

Re: Clarification of the Construction Industry Standard 29 CFR 1926.58.

I am writing requesting additional clarification of a portion of the Construction Industry Standard for Asbestos regarding respiratory protection.

Is a powered air-purifying respirator considered a negative-pressure respirator? If not, is quantitative or qualitative fit testing required by the Standard?

RECORD ID 1863

STANDARD NUMBER 1926.58(k)(3)(i); 1926.58(b)
INFORMATION DATE 870717

ABSTRACT The training required for designation as a "competent person" under 29 CFR 1926.58 is the successful completion of an EPA Asbestos Training Center course or of a course that is essentially similar in length and content to the EPA course.

INTERPRETATION 29 CFR 1926.58(k)(3)(i); 1926.58(b)

JUL 17, 1987

This is a response to your letter of October 29, 1986 regarding the Occupational Safety and Health Administration's asbestos standard for the construction industry 29 CFR 1926.58. We apologize for the delay in responding to your letter.

Specifically, you ask if an approved training course required by Maryland State regulation COMAR 10.18.23.04C satisfies the requirements for designating a "competent person" under 29 CFR 1926.58. We have contacted the State of Maryland but thus far have been unable to obtain a copy of their regulations.

In general, however, the training requirements for a competent person is the successful completion of an Environmental Protection Agency (EPA) Asbestos Training Center course or of a course that is essentially similar in length and content to the EPA courses.

It should be noted that, once the EPA accreditation procedures come into effect, the requirements for competent person training will be successful completion of an EPA accredited course for Asbestos Abatement Contractors and Supervisors.

RECORD ID

1865

STANDARD NUMBER

1926.58(b); 1926.58(h)(4)(ii); 1926.58(m)(1)(i); (Appendix D);
1926.103(a); 1910.134(e)(5); 1910.1001(b); (g)(2); (g)(4)

INFORMATION DATE

870727

ABSTRACT

This interpretation under the construction asbestos standard, 1926.58, addresses requirements for respirator qualitative fit testing, medical surveillance required when negative pressure respirators are worn for asbestos work, qualifications necessary for individuals administering medical questionnaires, and the definition of a fiber.

INTERPRETATION

29 CFR 1926.58(b); 1926.58(h)(4)(ii); 1926.58(m)(1)(i); (Appendix D);
1926.103(a); 1910.134(e)(5); 1910.1001(b); (g)(2); (g)(4)

JUL 27, 1987

This is response to your recent letter concerning the Occupational Safety and Health Administration's (OSHA) asbestos standard for the construction industry. We apologize for the delay in responding to your letter.

Your first question deals with qualitative fit tests required by 29 CFR 1926.58 (h)(4)(ii). OSHA has interpreted this section to mean that qualitative fit tests may be used for any level of respiratory protection selected provided that the employee exposures will not exceed 2 fiber/cc.

Your second question concerns paragraph 29 CFR 1926.58(m)(1)(i), medical surveillance. This paragraph means that whenever employees are required to wear negative pressure respirators when performing asbestos work that medical surveillance is required regardless of the exposure levels to asbestos, tremolite, actinolite or anthophyllite. If the employer upgraded the respiratory protection to powered air purifying respirator with high efficiency filters, then medical examination pursuant to the asbestos standard would only be required when employee exposures were at or above the action level for thirty or more days per year. It should be noted, however, that 29 CFR 1910.134(b)(10) requires that:

- (10) Persons should not be assigned to tasks requiring use of respirators unless it has been determined that they are physically able to perform the work and use the equipment. The local physician shall determine what health and physical conditions are pertinent. The respirator user's medical status should be reviewed periodically (for instance, annually).

Your third question relates to 29 CFR 1926.58, Appendix D. Specifically, you ask, "what qualifications are necessary for the individual who administers medical questionnaires ...?" There are no specific qualifications required by the standard for individuals who administer the medical questionnaire contained in Appendix D.

Your final question deals with the change in the definition of a fiber. The definition of a fiber was changed to mean "...a particulate form of asbestos, tremolite, anthophyllite or actinolite, 5 micrometers or longer..." in order to be consistent with the new OSHA analytical procedures. If the microscopic analysis of a sample is capable of distinguishing between asbestos, tremolite, anthophyllite or actinolite fibers from fibers of other substances, than it is proper to do so.

RECORD ID 1866

STANDARD NUMBER 1926.58(k)(3)(i); 1926.58(e)(6)(iii)
INFORMATION DATE 870727

ABSTRACT - This interpretation letter addresses OSHA's approach for evaluating asbestos training programs. OSHA does not review and approve individual asbestos training courses. In general, OSHA considers a course to be equivalent to an EPA Asbestos Training Center course, if the curriculum of the course is essentially similar in length and content to the EPA Asbestos Training Center course.

INTERPRETATION 29 CFR 1926.58(k)(3)(i); 1926.58(e)(6)(iii)

JUL 27, 1987

This is in response to your letter dated October 23, 1986 to Mr. J of the Occupational Safety and Health Administration's (OSHA) (City) Regional Office. We apologize for the delay in responding to your inquiry. Your letter was referred to the OSHA National Office in Washington, D.C. for response.

Your letter concerns an asbestos training program that I.P.C. (City), Inc. offers. Specifically, whether or not your course can be considered to be equivalent to an EPA Asbestos Training Center course pursuant to 29 CFR 1926.58(e)(6)(iii).

Resource limitations prevents OSHA from reviewing and approving individual asbestos training courses. In general, OSHA considers a course to be equivalent to an EPA Asbestos Training Center course, if the curriculum of the course is essentially similar in length and content to the EPA Asbestos Training Center course.

It should be noted, however, that the EPA is required under the Asbestos Hazard Emergency Response Act (AHERA) to develop procedures for the accreditation of asbestos training courses. Once these regulations are in effect, the training requirements for a competent person will be successful completion of an EPA accredited course for Asbestos Abatement Contractors and supervisors.

RECORD ID**3098**

**STANDARD NUMBER
INFORMATION DATE****1926.58(c); (g)(1)(i)(A); 1910.1001(c); (f)(1)(iv)
890829**

ABSTRACT

The asbestos construction standard requires employers to institute engineering and work practice controls to reduce employee exposures to or below the PEL's of 0.2 f/cc expressed as an 8-hour TWA, and 1.0 f/cc as a 30-minute STEL. The engineering control described in the Brand "Decontamination System" is consistent with OSHA's traditional policy regarding the hierarchy of controls. If the Brand System is capable of reducing employee exposures to or below the PEL's, the employer may elect to use it to reduce employee exposures.

INTERPRETATION**29 CFR 1926.58(c); (g)(1)(i)(A); 1910.1001(c); (f)(1)(iv)****AUG 29, 1989**

This is in response to your letter of June 10, to the OSHA Regional Office in (City), requesting clarification as to whether the Brand "Decontamination System" meets the intent of the occupational safety and health requirements at 29 CFR 1926.58.

The Occupational Safety and Health Administration (OSHA) does not approve or certify equipment or processes for use in the workplace. However, when we are provided with adequate information concerning a control method, we do offer an opinion regarding its efficiency in achieving compliance with our requirements for employee safety and health. Therefore, this letter is not an approval or a certification of the Brand System, but is an interpretation of our standards as they apply to the use of this system in United States workplaces.

The asbestos construction standard requires employers to institute engineering and work practice controls to reduce employee exposures to or below the permissible exposure limits (PEL's) of 0.2 f/cc expressed as an 8-hour TWA, and 1.0 f/cc as a 30-minute STEL. Negative-pressure enclosures are the primary engineering control utilized during asbestos abatement work. The engineering control which is described in United States Statutory Invention Registration H460 (Brand "Decontamination System"), is consistent with OSHA's traditional policy regarding the hierarchy of controls. This hierarchy specifies that engineering and work practice controls be used in preference to respiratory protection. Engineering controls are the preferred means of compliance since they reduce exposure hazards in the workplace environment by removing the airborne contaminant.

If the Brand System is indeed capable of reducing employee exposures to or below the PEL's, which appears to be the case, we believe it can be considered among the controls the employer may elect to use to reduce employee exposures.

As you are aware, the performance of a device or process and its success in meeting the intent of OSHA's standards can only be determined by the safety and/or health professional observing it in actual use under specific circumstances.

RECORD ID

3346

STANDARD NUMBER
INFORMATION DATE

1926.58(b); (e)(6)(i); (g)(1)(i); (g)(1)(i)(D); (Appendix G)
900517

ABSTRACT

This interpretation addresses the use of glove bags in accordance with 1926.58. Questions discussed are the definition for regulated areas, requirements for negative-pressure enclosures based on the activity regardless of the airborne levels of asbestos, airborne concentrations as applied to paragraph (e)(6), glove bags as a method for controlling exposures, and definition of small-scale, short-duration job as applied to removal of asbestos on pipes.

INTERPRETATION

29 CFR 1926.58(b); (e)(6)(i); (g)(1)(i); (g)(1)(i)(D); (Appendix G)

MAY 17, 1990

Thank you for your letter of February 27, regarding the use of glove bags in accordance to the Occupational Safety and Health Administration's (OSHA) asbestos standard for construction, 29 CFR 1926.58. Your questions concerned regulated areas, negative-pressure enclosure requirements, airborne concentrations as applied to paragraph (e)(6), glove bags, and definition of small-scale, short-duration job as applied to removal of asbestos on pipes. The answers to your questions are as follows:

Section (e) specifically addresses regulated areas. Regulated areas required by the standard may take two forms. For asbestos work operations that do not involve asbestos removal, demolition, or renovation, such an area may consist simply of an area demarcated by posted signs that limit the number of employees entering the area. Paragraphs (e)(1) through (e)(5) contain OSHA's requirements for these regulated areas.

Employers engaged in asbestos removal, demolition, renovation projects are required to establish a negative-pressure enclosure, which is the second type of regulated area. The requirement for a negative-pressure enclosure is stated in paragraph (e)(6) and is triggered by the type of activity regardless of airborne levels of asbestos. Paragraph (e)(6) addresses specifically asbestos removal, demolition, and renovation projects and is not dependent upon (e)(1).

If a job is not small scale, short-duration, then it is considered a large scale job. All large scale jobs involving asbestos removal, demolition, and renovation must establish a negative-pressure enclosure, wherever feasible, regardless of the fiber release. During such construction activities, the exposure levels can be quite high and are also variable and unpredictable.

Glove bags are one method specified in 29 CFR 1926.58 (g)(1) for controlling exposures. Paragraph (g) describes control methods for achieving compliance with the permissible exposure limits as prescribed in section (c) and paragraph (g)(1)(D) specifically mentions "enclosure or isolation of the process producing asbestos." Glove bags are one method for enclosing or isolating the process. Workers in the regulated areas have to use those methods to keep their exposure levels low.

Appendix G describes the removal of asbestos-containing insulation on pipes as a small-scale, short-duration activity, but it fails to specify the length of pipe or the quantity of asbestos removed. It is implicit in the standard however, that the removal involves only a small amount of pipe insulation as part of pipe repair work or valve replacement.

We hope we have adequately addressed your concerns. If you need further assistance, please do not hesitate to contact us again. Also, please note that (State) is a State-Plan-State, which handles its own safety and health programs and is not under Federal OSHA's jurisdiction. Its standards have to be at least as effective as the federal ones; however, they can be stricter. You may wish to contact the state for further information.

SOURCE LETTER

February 27, 1990

Subject: Memorandum - Use of Glove Bags

This letter is in response to your memorandum which addresses the above subject matter. The verbiage in the 2nd paragraph states:

"As you know, OSHA's position is that the requirements to establish negative-pressure enclosures pursuant to 29 CFR 1926.58 (e)(6) is a specification standard which is predicated upon the type of job being performed and not the employee exposure levels."

Concerning this, I have the following questions:

Does not section (e) Regulated areas of 29 CFR 1926.58 specifically address only regulated areas?

Is not a negative-pressure enclosure as listed in 29 CFR 1926.58 (e)(6) considered a regulated area whereas it is in this section (e) Regulated areas and specifically addressed, as such, in 29 CFR 1926.58 (b) Definitions?

Is not the requirements of (e)(6) based on whether airborne concentrations of asbestos, tremolite, anthophyllite, actinolite, or a combination of these minerals exceed or can be reasonably expected to exceed the PEL as in enumerated in (e)(1)?

Why do you state that the (e)(6) is a specification requirement and not based on employer exposure when section (e)(1) specifically addresses the PEL as indicated in (c) of 29 CFR 1926.58?

I cannot find any language in 29 CFR 1926.58 where the language LARGE-SCALE is addressed. It is the US DOL's position that if a job is not small scale-short duration then it must be a large-scale project? Is this memo saying that all jobs, if not a small scale-short duration, must have a negative-pressure enclosure irrespective of what the fiber release may be?

The last sentence of paragraph 2 states: "Glove bags are one method specified in 29 CFR 1926.58 (g)(1) for controlling exposure within the negative-pressure enclosure." I see no reference in this section to glove bags within negative-pressure enclosures. Does not this section specifically deal with methods to achieve compliance with the PEL as prescribed in 29 CFR 1926.58 (c) that would in turn activate the requirements of section (e)?

Further, your memorandum states that in order for a project to qualify as a small scale-short duration operation all four (4) items, as listed would need to apply. In a review of Appendix G of 29 CFR 1926.58 it is noted that the removal of pipe with asbestos remaining on the system itself is considered a small scale-short duration operation irrespective of the length.

RECORD ID 3624

STANDARD NUMBER 1926.58(e)(6)(i)
INFORMATION DATE 900904

ABSTRACT This interpretation responds to a request that OSHA review and comment on a procedure to remove asbestos-containing floor tiles. OSHA has consistently expressed its position that negative-pressure enclosure requirements do not apply to the removal during the replacement of asbestos-containing resilient floor covering materials. OSHA published a proposed revision of its asbestos standards on July 20, 1990 (55 FR 29712). According to OSHA technical information, the final rule is not expected until sometime in 1992. Therein, OSHA re-examines its regulatory policy concerning the continuation and/or expansion of effective methods for removal of asbestos-containing floor tile.

INTERPRETATION 29 CFR 1926.58(e)(6)(i)

SEP 4, 1990

This is in response to your letter of August 29, requesting that the Occupational Safety and Health Administration (OSHA) review and comment on your procedure to remove asbestos-containing floor tiles.

OSHA has consistently expressed its position that negative-pressure enclosure requirements do not apply to the removal during the replacement of asbestos-containing resilient floor covering materials.

Although OSHA does not approve or certify equipment or processes for use in the workplace, when we are provided with adequate information concerning a new process, we do offer an opinion regarding its efficacy in achieving compliance with our requirements for employee safety and health. Therefore, this letter is not an approval or certification of your method, but is an interpretation of standard 29 CFR 1926.58 as it applies to the use of your procedure in United States workplaces.

Based on the limited data you have submitted, it appears that the use of your procedure, by employees trained pursuant to that specified in your submission, can prevent a release of significant asbestos contamination. Please be aware that the effectiveness of your method can only be determined by the health and safety professional observing it in actual use under specific circumstances.

As requested in your letter, we have addressed from a health standpoint employee exposure to asbestos only. No attempt has been made to analyze potential employee exposure to solvent vapors that can result during mastic removal operations.

Also note that OSHA has published a proposed revision of its asbestos standards on July 20, 1990 (55 FR 29712), a copy of which is enclosed. Therein, OSHA is re-examining its regulatory policy concerning the continuation and/or expansion of effective methods for removal of asbestos-containing floor tile. Since the rulemaking is likely to impact upon your procedure, we recommend that you participate in the upcoming rulemaking.

RECORD ID

3741

**STANDARD NUMBER
INFORMATION DATE**

**1926.58(e)(6)(I)
900608**

ABSTRACT

This interpretation addresses the removal of asbestos-containing roofing materials. 29 CFR 1926.58 (e)(6) states, "Wherever feasible, the employer shall establish negative-pressure enclosures before commencing removal, demolition, and renovation operations." The purpose of the negative-pressure enclosure is to prevent the spread of asbestos contamination beyond the work area. The roofing industry generally contends that potentially hazardous working conditions may result from using a negative-pressure enclosure system on a roof. Negative-pressure enclosure systems, where not feasible, may create significant hazards. OSHA agrees that the potential release of fibers is best controlled by applying proper removal procedures at the source. The point of determining "feasibility" shall be discussed on a case by case basis.

INTERPRETATION

29 CFR 1926.58(e)(6)(I)

JUN 8, 1990

This is in response to your letter of April 12 to the Occupational Safety and Health Administration (OSHA) Regional Office, concerning procedures for removal of asbestos-containing roofing materials. Your letter has been forwarded to our office for a reply.

As stated in paragraph (e)(6) of 29 CFR 1926.58, OSHA's asbestos standard for construction, "Wherever feasible, the employer shall establish negative-pressure enclosures before commencing removal, demolition, and renovation operations."

The purpose of the negative-pressure enclosure is to prevent the spread of asbestos contamination beyond the work area. The negative-pressure enclosure would not be feasible in cases where it would create a greater hazard to the employees.

We agree with you that the potential release of fibers is best controlled by applying proper removal procedures at the source. In the event that the construction of the negative-pressure enclosure is infeasible, the procedures you outlined for asbestos roof removal seem adequate. However please note that OSHA cannot and does not approve or endorse any equipment or work processes. The effectiveness of your work procedures and the feasibility of establishing a negative-pressure enclosure must be decided on a case-by-case basis by the local Area Office, whose compliance staff would have first-hand knowledge of your work conditions.

OSHA is proposing supplemental rulemaking on its asbestos regulations. The proposal is planned for publication in the Federal Register around July 12. We welcome comments from the public. Please send your comments in quadruplicate to the:

Docket Office, Room N2625
Docket H-033e
Occupational Safety and Health Administration
200 Constitution Ave. N.W.
Washington, D.C. 20210

MAY 2, 1990

MEMORANDA

SUBJECT: Removal of Asbestos-Containing Roofing Materials - 29 CFR 1926.58(e)

The attached request dated April 12, 1990, is forwarded for your review and response.

Copies of correspondence relative to clarification of subject standard were mailed to Mr. K. However, he maintains that there are special and unique problems for the roofing industry in compliance with this standard.

Mr. K made reference in his letter to consideration by the Agency for the roofing industry similar to that shown to the floor tile removal industry.

Please furnish a copy of your response to Mr. J, Assistant Regional Administrator for Technical Support.

Attachments

May 2, 1990

This will acknowledge receipt of your letter of April 12, 1990, addressed to Mr. R of my staff.

Your request for interpretation/clarification concerning the applicability of 29 CFR 1926.58(e) to the roofing industry has been referred to our National Office in Washington, D.C. for response. You should hear from that office soon.

SOURCE LETTER

April 12, 1990

Per our recent telephone conversation, Company X is currently advising several clients in the (City), (State) area on the proper procedures for the removal of asbestos-containing roofing materials. Per our discussion, Company X is concerned with the removal of a typical 3 or 4-ply built-up roof system, applied on a flat commercial facility, such as a warehouse, office building, hotel, apartment building or shopping center.

It is generally held by the roofing industry that potentially hazardous working conditions may result from using a negative-pressure enclosure system on a roof. Negative-pressure enclosure systems may create significant hazards including:

1. The imminent danger of high winds blowing over or destroying the enclosure system,
2. The possibility of heat stress caused by the excessive hot and humid conditions created inside the enclosure system.

Experience has show that the use of proper removal procedures by the asbestos abatement contractor will result in a minimal fiber release, where fiber concentration levels are maintained below 0.01 fibers per cubic centimeter (f/cc) in the work area. Company X proposes that the following procedures be considered for asbestos roof removal.

1. The abatement contractor's workers will perform all roofing removal while wearing two sets of protective clothing and using proper respiratory protection.
2. The abatement contractor will construct a decontamination enclosure system either adjacent and contiguous to the work area; or at a location remote to the work area, depending on site conditions.
 - a. All workers are required to don two sets of clean protective disposable clothing and proper respiratory protection before entering the work area through the decontamination enclosure system. A "clean room" shall be provided within the decontamination enclosure system to allow for changing and storage of worker's street clothes.
 - b. Each time a worker leaves the work area, workers shall clean any debris (using a HEPA vacuum cleaner) from the outside layer of protective clothing and remove and dispose of the outside layer of protective clothing before leaving the work area and entering the decontamination enclosure system. Respiratory protection may only be removed and cleaned once the worker is inside the decontamination enclosure system. Worker shall

remove and dispose of the remaining set of protective clothing and wash themselves in a staging area provided in the decontamination enclosure system.

- c. All contaminated items will be disposed of in accordance with OSHA and EPA requirements.
3. Contractor shall isolate the work area from the building interior.
4. Workers shall be fully protected with respirators and protective clothing from the time of first disturbance of asbestos-containing roofing material until final clean-up is completed.
5. Only the asbestos abatement contractor's workers and the environmental consultant's air monitoring technicians will be allowed on the roof during the removal of the asbestos-containing roofing materials. All personnel will be required to wear proper respiratory protection during removal activities.
6. The environmental consultant will continuously conduct air monitoring adjacent to the work area. If air monitoring indicates consistent fiber concentration levels greater than 0.10 fibers per cubic centimeter (f/cc), full negative-pressure enclosures will be required to continue the removal of roofing materials. Once the cause of the elevated fiber concentration levels is determined, proper controls will be implemented. If subsequent air monitoring inside the enclosed work area indicates that the fiber concentration levels have again been controlled below 0.10 f/cc, the abatement contractor will again be allowed to perform further removal without the enclosure system as long as the additional controls are used and previous steps are followed.
7. All roofing materials to be removed are to be wetted. The application of water shall continue during removal, but quantities shall be restricted to prevent water damage to other parts of the building.
8. All roofing materials shall be removed in easily manageable sections, bagged or wrapped and sealed in two layers of 6 mil polyethylene before the material can dry.
9. Wrapped and sealed materials will be properly labeled, wet sponged and lowered from the roof to an acceptable container or transporter on the ground. Wrapped and sealed materials shall not be allowed to drop more than 3 feet. No drop chutes will be allowed.

It is Company X's opinion that the potential release of fibers during removal of built-up roof systems is best controlled by applying proper removal procedures at the source.

Several of our client's have scheduled re-roofing projects in the very near future which may require the removal of 3 or 4 ply flat built-up roof systems composed of asbestos-containing materials. Accordingly, a response concerning our proposed methodology will be appreciated at your earliest convenience.

RECORD ID**3798**

STANDARD NUMBER**1926.58(l)(2); 1926.58(e)(4); 1926.58(e)(2); 1926.58(e)(6)(l);
1926.58(h)(2); 1910.1001(k)(6)****INFORMATION DATE****900810**

ABSTRACT

This interpretation addresses a trailer mounted vacuum system and bagging station used in asbestos abatement. Although the bagging station is an extension of the work area, bagging is separate from asbestos removal, demolition, or renovation; therefore, a negative-pressure enclosure and decontamination chamber is not required. This work area is the type of regulated area requiring demarcation, limitation of access to authorized persons, and prohibition of smoking, drinking, eating, chewing tobacco or gum, and applying cosmetics. Respirators are to be supplied and selected based on employee exposure levels that exist in the workplace.

INTERPRETATION**29 CFR 1926.58(l)(2); 1926.58(e)(4); 1926.58(e)(2); 1926.58(e)(6)(l);
1926.58(h)(2); 1910.1001(k)(6)****AUG 10, 1990**

This is in response to your letters of April 16, to the Occupational Safety and Health Administration (OSHA) regarding a trailer mounted vacuum system and bagging station used in asbestos abatement. Your letter to OSHA's regional office as well as a copy sent to OSHA's Docket Office in Washington, D.C. have been forwarded to our office for response. In accordance with a recent telephone conversation with our staff member, we are providing a response to question 3 of your letter, as you indicated your other concerns were previously addressed by the Environmental Protection Agency.

Question 3 states: "If the bagging station is an extension of the work area, shall it have the same protective factors as the area from whence it came? That is, a secured area consisting of a ceiling, walls, floor, air and under negative pressure complete with a decon chamber."

Although the bagging station is an extension of the work area in the circumstances shown in your submission, bagging is separate from asbestos removal, demolition, or renovation; therefore, 29 CFR 1926.58 (e)(6) would not apply and a negative-pressure enclosure and decon chamber would not be required. This work area is to be considered as the type of regulated area where paragraphs (e)(1) - (e)(5) of the asbestos standard would apply, requiring demarcation of the area, limiting access to authorized persons, and prohibition of smoking, drinking, eating, chewing tobacco or gum, or applying cosmetics. Respirators are to be supplied and selected in accordance with paragraph (h)(2) based on employee exposure levels that exist in the work place.

SOURCE LETTERS**April 16, 1990****Attention: OSHA Docket Office**

For quick reference, I am enclosing a letter dated 2-13-90 and subsequent correspondence. I direct your attention to question number 3, in that letter and ask you to respond.

Enclosure:**April 6, 1990**

This is in response to your letter of March 13, 1990, requesting that the Occupational Safety and Health Administration (OSHA) render an opinion of the vacuum systems represented in your letter, as an asbestos abatement procedure as it relates to the workers and the consuming public.

Since your question may have national significance, I would suggest that you submit it to the OSHA Docket for consideration with the Notice of Proposed Rulemaking on asbestos remand issues. The

address for the OSHA Docket Office is: U.S. Department of Labor, 200 Constitution Avenue, N.W., Room N2625, Washington, D.C. 20210. Their phone number is (202) 523-7075. I am, however, forwarding your letter along with attachments to our National Office for their consideration as it relates to the current asbestos standard. You can expect to receive a written response directly from them on this issue.

Your interest in safety and health is appreciated. If you have any further questions, please feel free to contact Mr. T of my staff.

March 13, 1990

At the request of Mr. G, I have sent this letter to you. Enclosed you will find a copy of U.S. EPA letter dated 3-06-90. I will draw your attention to Q3 and ask you to respond. I have also enclosed some pictures of representative vacuum systems. You are not being asked to approve or disapprove of the vacuum systems, rather, to give an opinion on an asbestos abatement procedure as it relates to the workers and the consuming public.

MAR 6, 1990

The following information is in response to your February 13, 1990 letter requesting interpretation of AHERA, NESHAP and OSHA asbestos regulations:

- Q1. Is the abatement contractor required to "stipulate that he is utilizing a vacuum system to transport ACM from the work area to a bagging station outside of the work area." The vacuum system as you describe it should be identified in the notification to EPA.

The NESHAP regulation, 40 C.F.R. 61, Subpart M, specifically 61.146(c)(7), requires the owner/operator to identify "Procedures to be used to comply with the requirements of this Subpart." Since the use of a vacuum system is a significant work practice procedure, it should be included as a work practice in a notification.

- Q2. "Is the bagging station an extension of the work area."

Yes. The bagging station is considered an extension of the work area. To comply with the NESHAP regulations, the materials must be adequately wet until collected for disposal, shall be placed in leak-tight containers, no visible emissions shall be emitted to the outside air through this operation and the asbestos containing wastes deposited in an approved landfill.

- Q3. "If the bagging station is an extension of the work area, shall it have the same protective factors as the area from whence it came? That is, a secured area consisting of a ceiling, walls, floor, air tight and under negative pressure complete with a decon chamber."

Please contact Mr. G of OSHA at (816) 426-5861. He can explain the OSHA requirements.

You also requested information regarding disposal of asbestos wastes.

1. The owner and operator of renovation and demolition operations are responsible for proper disposal of the asbestos waste materials.
2. The NESHAP regulations allow a owner/operator to temporarily store asbestos wastes as long as the materials are maintained in a wet condition in leak-tight containers. If the disposal site is changed, the owner/operator is required to amend the notification to reflect the new disposal site.

I have forward a copy of your letter to the Regional Administrator for the Occupational Safety and Health Administration in this region.

February 13, 1990

Re: Verification of, and/or interpretation of Federal regulations for asbestos abatement procedures, utilizing vacuum systems for transporting ACM from the work area to the vacuum bagging station.

The following questions can be directed to all agencies including AHERA, NESHAPS, and OSHA.

1. On the pre-abatement notification you are required to state your abatement procedures. Shall a contractor stipulate that he is utilizing a vacuum system to transport ACM from the work area to a bagging station outside of the work area?
2. Is the bagging station an extension of the work area?
3. If the bagging station is an extension of the work area, shall it have the same protective factors as the area from whence it came? That is, a secured area consisting of a ceiling, walls, floor, air tight and under negative pressure complete with decon chamber.

Re: Ownership of ACM from general to disposal in an approved landfill.

1. Once the ACM has been removed from the premises, does the generator of the material (owner) share with the asbestos contractor in the liability for that material until it has been properly disposed of?
2. On a pre-abatement notification, the contractor must stipulate the disposal site. If the contractor does not alter or amend that notification, can he warehouse the material and dispose of same, at a site not listed on the notification at a later date?

December 30, 1989

In response to your letter dated December 27, 1989, I wish to provide answers to the questions proposed.

1. If you are at the bagging station of a vacuum system, must the bagging station (containment area) have a floor, walls, roofs, sealed air-tight and under negative pressure, same as the area from which it originated (the work area)?

Answer: Title 178, Chapter 22, Section 002.19 of the Asbestos Control Program Regulations defines "containment area" to be "a negative pressure enclosure containing the asbestos project work area and decontamination facility, and configured so as to isolate asbestos project activities from areas which are to remain uncontaminated." The process of hanging asbestos materials generally would have to be done in such a containment area or a waiver could be requested.

2. If a vacuum system is to be used, shall it be reported on the pre-abatement notice given to the state?

Answer: Yes.

RECORD ID

4177

STANDARD NUMBER
INFORMATION DATE

1926.58(f)(3); 1926.58(f)(2); 1926.58(f)(1)(iii); 1910.1001(d)(1)(ii)
910313

ABSTRACT

This interpretation letter addresses exposure monitoring for asbestos pursuant to 1926.58. If an employee works less than 8 hours, the remaining hours up to 8 are assumed to result in no additional exposure. If a worker works more than 8 hours, air sampling is to be done during anticipated peak exposures. All activities related to actual asbestos removal require monitoring. Workers inside the regulated areas are to be monitored daily unless equipped with supplied-air respirators. Employees working outside the regulated areas are to be monitored initially unless the employer has objective or historical data demonstrating that the employee exposures will not exceed the action level or excursion limit.

INTERPRETATION

29 CFR 1926.58(f)(3); 1926.58(f)(2); 1926.58(f)(1)(iii);
1910.1001(d)(1)(ii)

MAR 13, 1991

Thank you for your letter of February 8, regarding exposure monitoring of asbestos pursuant to 29 CFR 1926.58. We are providing the response to your questions as follows:

1. If a worker only works 4 hours a day during asbestos removal and then goes home, do we assume 0 exposure for the additional 4 hours that the employees did not work to calculate the 8 hour exposure?

You can assume 0 exposure for the period that the worker is no longer at the job site and not engaged in any work activity which may involve asbestos-containing materials.

2. If the employee works 6 hours, do we assume 2 hours 0 exposure to calculate an 8-hour TWA?

Please refer to the above response.

3. What is the cut-off point between actual hours worked and assumptions of hours of 0 exposure in order to arrive at the total 8 hour exposure in order to report asbestos exposure as an 8 hour TWA?

Please refer to our response to question #1. One must exercise professional judgment as to when a worker is no longer considered occupationally exposed to asbestos.

4. If an employee works 10 or 12 hours a day, how is the 8-hour TWA arrived at for this situation?

The standard makes no adjustment for 10- or 12-hour workdays. One must sample for eight hours covering the peak exposures during the entire workday.

- 5a. What worker activities must be monitored under 29 CFR 1926.58(f)(2) Initial Monitoring and for how long?

As stated in paragraph (f) of the standard, each employer who has a work place or work operation covered by the standard shall perform initial monitoring unless the employer has objective or historical data to satisfy the monitoring requirements. The scope of activities covered by the standard is described in 29 CFR 1926.58(a): Scope and Application. Initial monitoring implies monitoring the first day of each work operation.

- 5b. Is preparation work such as constructing the containment barriers and decon units covered or only actual asbestos removal?

All activities related to the actual asbestos removal would require monitoring.

6. 29 CFR 1926.58(f)(3) require periodic monitoring within regulated areas. Am I to assume that employees working outside the regulated area such as workers carrying out filled bags of asbestos waste to a truck or dumpster do not need to be monitored?

Workers inside the regulated areas are to be monitored daily unless equipped with supplied-air respirators. Employees working outside the regulated areas are to be monitored initially unless the employer has objective or historical data demonstrating that the employee exposures would not exceed the action level or excursion limit.

RECORD ID 2432

STANDARD NUMBER 1926.58(a)(3); 1910.1001(a)(1)
INFORMATION DATE 860819

ABSTRACT

A clarification is given of the scope of the new asbestos standards to the construction industry. Construction related activities involving asbestos in a general industry establishment are regulated under 29 CFR 1926.58. Maintenance activities involving asbestos in a general industry establishment, where the maintenance is related to the operation itself, are regulated under 29 CFR 1910.1001.

INTERPRETATION 29 CFR 1926.58(a)(3); 1910.1001(a)(1)

AUG 19, 1986

MEMORANDUM

SUBJECT: Clarification of New Asbestos Standard for Construction (29 CFR 1926.58)

This is in response to your memo of July 24 requesting clarification of the scope of the new standard for asbestos, tremolite, anthophyllite, and actinolite as it applies to the construction industry.

The new standard, 29 CFR 1926.58, applies to all construction related activities whether conducted at a construction site or performed by a maintenance crew of plant personnel in a general industry establishment. Construction related activities as defined in 1926.58(a) includes demolition, salvage, removal, encapsulation of materials containing asbestos, alteration, repair, and installation of products containing asbestos.

In general, it should be noted that any of the above activities related to a building, structure, or plant process equipment (such as pipe, process vessel and boiler insulation) fall under the scope of the asbestos standard for construction (1926.58). However, maintenance activities which involve the operation itself, such as repairing an asbestos impregnated conveyor belt or repairing duct work or a blower system that exhausts or conveys asbestos dust, would be considered under the scope of the general industry standard (1910.1001).

SOURCE LETTER

MEMORANDUM

SUBJECT: Clarification of New Asbestos Standard (29 CFR 1926.58) for Construction

This is to request clarification of the new asbestos standard (29 CFR 1926.58) as it applies to the construction industry.

Under paragraph 29 CFR 1926.58(a), the scope and application of the standard is discussed. It is stated that the standard applies to all construction work including demolition and salvage of structures where asbestos is present, and removal or encapsulation of materials containing asbestos.

I have received several requests for clarification of the scope of this standard. Construction in the 29 CFR 1926.58 asbestos standard is not defined by any SIC codes but is defined by the type of activity; i.e., removal, demolition, repair, etc. In a general industry establishment where removal or repair is taking place and these activities are being conducted by a maintenance crew (not contractors), does the 29 CFR 1926.58 standard apply where those activities described in its scope; i.e., removal, repair, demolition, are taking place?

RECORD ID 4057

STANDARD NUMBER 1926.58(a)(3); (b); (f)(1)(i)
INFORMATION DATE 901015

ABSTRACT

This interpretation letter addresses the asbestos construction standard and its application to trenching and excavating operations where asbestos-containing soil is involved. As used in 1926.58(a)(3), the word "substrates" refers to soil. Where asbestos-containing soil is commonly known to be present, a contractor must exercise reasonable diligence to test the soil for asbestos content prior to construction activities. In the absence of testing, the soil should be assumed to contain asbestos, and air monitoring is required. All other precautionary measures shall also be followed in accordance with the standard.

INTERPRETATION 29 CFR 1926.58(a)(3); (b); (f)(1)(i)

OCT 15, 1990

MEMORANDUM

SUBJECT: Interpretation of 29 CFR 1926.58(a)(3)

This is in response to your memorandum of September 14, regarding the applicability of the asbestos standard to excavating activity. Please accept our apology for the delay in response. Our office had not received the earlier memorandum, dated April 23, from your office.

The asbestos standard for construction does apply to trenching and excavating operations where asbestos-containing soil is involved. The word "substrates" as used in 1926.58(a)(3) refers to soil.

Where asbestos-containing soil is commonly known to be present, a contractor must exercise reasonable diligence to test the soil for asbestos content prior to construction activities in these areas. General knowledge of the presence of asbestos shall be established from published information, such as geological surveys, or media coverage of the presence of naturally occurring asbestos in the vicinity of the worksites. In absence of testing, the soil should be assumed to contain asbestos and air monitoring is required. All other precautionary measures shall also be followed in accordance with the standard.

SOURCE LETTER

September 14, 1990

MEMORANDUM

SUBJECT: Interpretation of 1926.58(a)(3)

During the process of promulgating their asbestos and excavation standards, Cal/OSHA has been heavily engaged in discussions with the Associated General Contractors (AGC) regarding the applicability of the asbestos standard to excavating activity.

We had previously requested an interpretation (copy attached) but have not received a response as of this date.

Attachment:

August 24, 1990

Two items of concern:

1. Are the training hours for the Hazardous Waste Emergency Response Standard, 29 CFR 1910.120, cumulative. That is, if you have 8 hours of first responder training, can you add an additional 24 hours of appropriate training and make that person a Technician?
2. We haven't received the response to the inquiry concerning the application of the asbestos construction standard, 29 CFR 1926.58 to excavation. Please advise.

April 23, 1990

MEMORANDUM

SUBJECT: 1926.58(a)(3), "Substrates"

This memo is to request an interpretation of the word "substrates" as used in paragraph 1926.58(a)(3). Substrates is, of course, substratum or soil.

Because the term substrates or substratum refers to soil, the questions arise: Is a contractor required to test soil for asbestos content prior to performing trenching or excavating operations? Further, is a contractor required to conduct air monitoring per 1926.58(f) for asbestos fiber levels during trenching or excavating operations?

Please provide an interpretation as to whether or not OSHA must cite contractors for not testing the soil for asbestos content and for not conducting air monitoring for asbestos.

RECORD ID

3923

STANDARD NUMBER

1926.58(h)(2)(i); (h)(4)(ii); 1910.134(e)(5); 1910.1001(g)(3); (g)(4)(ii);
1910.1001(Appendix C); 1910.1028(g)(5)(i); (Appendix E)(7)

INFORMATION DATE

880208

ABSTRACT

This interpretation letter responds to questions regarding respiratory protection under the asbestos, lead, and respiratory protection standards. Questions addressed are requirements for quantitative fit testing, conditions under which the employer must institute a respirator program, the employer's obligation for supplying powered air purifying respirators when there is no exposure, and bearded employees wearing a respirator when there is no potential for exposure above the PEL.

INTERPRETATION

29 CFR 1926.58(h)(2)(i); (h)(4)(ii); 1910.134(e)(5); 1910.1001(g)(3);
(g)(4)(ii); 1910.1001(Appendix C); 1910.1028(g)(5)(i); (Appendix E)(7)

Feb 8, 1988

This is in response to your letter of November 24, 1987, regarding respiratory protection under the Occupational Safety and Health Administration's (OSHA's) asbestos, lead, and respiratory protection standards (29 CFR 1926.58, 29 CFR 1910.1025, and 29 CFR 1910.134, respectively) and some general questions. We apologize for the delay in responding to your inquiry.

Question 1:

Must an employer, with a workplace where anticipated concentrations of toxic substances would not require a respirator to have a protection factor greater than 10 to protect employees, perform quantitative fit testing on employees wearing full facepiece respirators?

Answer:

If a respirator which is more protective than a half-mask negative pressure respirator is used in areas where exposure levels do not exceed the maximum levels specified in a specific standard for use of a half-mask negative pressure respirators, then qualitative fit testing may be performed in lieu of quantitative fit testing.

Question 2:

Must an employer, with workplace conditions as described in (1) above, choosing to use full facepiece respirators and do quantitative fit testing, perform three qualitative fit tests as required in Appendix C?

Answer:

Either the qualitative or quantitative protocol presented in 29 CFR 1926.58, Appendix C, shall be followed in its entirety. This does not however, preclude the employer from conducting a single quantitative fit test to augment qualitative fit testing.

Question 3:

If an individual is allowed to wear a respirator voluntarily in a workplace where there are no exposures to concentrations of toxic substances at or above the PEL, must the employer institute a respirator program for that individual or be in violation of OSHA regulations?

Answer:

If there is a potential for exposure of the employee who voluntarily wears a respirator to an airborne concentration at or above the PEL of a toxic substance, then the employer must institute a respirator program.

Question 4:

If an individual in a workplace where there are no exposures to concentrations of toxic substances at or above the PEL voluntarily asks to wear a respirator, and the employer supplies the respirator, is the employer then required by OSHA regulations to supply a powered air purifying respirator if the employee so requests?

Answer:

If there is truly no potential for an over exposure to a toxic substance, and an employee voluntarily wishes to use a respirator, then the employer is not required to provide powered air purifying respirators.

SOURCE LETTER

November 24, 1987

I would like to ask for clarification of certain requirements regarding the use of respirators for OSHA's Lead Standard 1910.1025, and the OSHA Asbestos Standard for Construction 1926.58.

The Asbestos Standard, Section (h)(4)(ii) Respiratory Protection, Respirator fit testing, reads as follows:

"Employers shall perform either quantitative or qualitative face fit tests at the time of initial fitting and at least every 6 months thereafter for each employee wearing a negative-pressure respirator. The qualitative fit tests may be used only for testing the fit of half-mask respirators where they are permitted to be worn, and shall be conducted in accordance with Appendix C."

On Friday, November 12, 1982, (FR 47 5110) OSHA published an amendment to 29 CFR 1910.1025(f)(3) governing the fit testing of respirators used to meet the requirements of that standard. Section (f)(3)(ii) reads as follows:

"Employers shall perform either quantitative or qualitative face fit tests at the time of initial fitting and at least every six months thereafter for each employee wearing negative pressure respirator. The qualitative fit tests may be used only for testing the fit of half-mask respirators where they are permitted to be worn, and shall be conducted in accordance with Appendix D."

ORC strongly supports mandatory fit testing requirements where respirators are used to protect employees against potential exposure to airborne toxic substances. It is also important that employers be allowed the flexibility to use their qualitative or quantitative fit testing as appropriate for the protection factor required.

The two sections quoted and underlined above mandate that qualitative fit testing may be used only for half-mask respirators. If an employer wishes to use a full facepiece respirator, regardless of the protection factor required, then quantitative fit testing must be accomplished.

An employer wishing to furnish employees with full facepiece respirators even though a protection factor of ten or less is all that is required, must conduct three (3) quantitative fit tests as required by 1926.58, Appendix C, Quantitative Fit Test Procedures, Section 8, Interpretation of Test Results, which requires that:

"The fit factor measure by the quantitative fit testing shall be the lowest of the three protection factors resulting from three independent tests."

Quantitative fit testing is an expensive procedure; it becomes even more so, when it must be repeated three times. Most employers will avoid using a respirator that requires quantitative fit testing to be performed. Thus, many employees are denied the use of potentially more effective respirators because of the much greater cost and trouble of quantitative fit testing.

ORC's questions are as follows:

- (1) Must an employer, with a workplace where anticipated concentrations of toxic substances would not require a respirator to have a protection factor greater than 10 to protect employees, perform quantitative fit testing on employees wearing full facepiece respirators?
- (2) Must an employer, with workplace conditions as described in (1) above, choosing to use full facepiece respirators and do quantitative fit testing, perform three quantitative fit tests as required in Appendix C?

ORC is also concerned with the applicability of OSHA respirator regulations to individuals who voluntarily chose to wear respirators in a workplace where there are no exposures to airborne concentrations of toxic substances at or above Permissible Exposure Limits (PEL).

- (3) If an individual is allowed to voluntarily wear a respirator in a workplace where there are no exposures to concentrations of toxic substances at or above the PEL, must the employer institute a respirator program for that individual or be in violation of OSHA regulations?
- (4) If an individual in a workplace where there are no exposures to concentrations of toxic substances at or above the PEL, voluntarily asks to wear a respirator, and the employer supplies the respirator, is the employer then required by OSHA regulations to supply a powered air purifying respirator if the employee so requests?
- (5) If a bearded individual in a workplace where there are no exposures to concentrations of toxic substances at or above the PEL, voluntarily chooses to wear a respirator, over his beard, is the employer in violation of OSHA respirator regulations requiring a face-seal area-free of impediments to a good seal?

RECORD ID 1760

STANDARD NUMBER 1926.58(e)(6)(iv); 1926.58 (Appendix G)
INFORMATION DATE 870629

ABSTRACT An employer claiming the small-scale, short duration exemption does not have to comply with 1926.58(e)(6). However, the employer must follow the provisions outlined in Appendix G of the standard.

(NOTE: The definition of small-scale, short duration has changed since the 1987 letter. The proposed change was published in 55 FR 29712. The final rule is not expected until sometime in 1992 (according to OSHA technical information).)

INTERPRETATION 29 CFR 1926.58(e)(6)(iv); 1926.58 (Appendix G)

JUN 29, 1987.

Your letter of January 23, 1987, has been referred to the Office of Health Compliance Assistance for response. Please accept my apology for the delay in response. The overwhelming number of letters and telephone calls regarding the asbestos standard has caused unavoidable delays in responding to the public's opinion.

In your letter you specifically requested the following interpretation of 29 CFR 1926.58(e)(6):

"Does a small-scale, short duration operation have to comply with sections (e)(6)(i) through (e)(6)(iii) of the standard?"

If an employer claims the small-scale, short duration exemption they do not have to comply with section (e)(6). However, they must follow the provisions outlined in Appendix G of the standard when performing small-scale, short duration renovation or maintenance activities.

RECORD ID 3207

STANDARD NUMBER 1926.58(e)(6)(i); (g)(1)(i)(A)
INFORMATION DATE 900503

ABSTRACT This interpretation letter provides OSHA's opinion on the Red Baron Negative Air Enclosure System. OSHA does not approve or endorse any products or work processes and, therefore, has not endorsed the "Red Baron" negative air enclosure system. OSHA rendered an opinion that the "Red Baron" system constitutes a negative-pressure enclosure. The opinion noted, however, that compliance with OSHA regulations on a particular worksite depends on proper usage and meeting all other provisions of the asbestos standard.

INTERPRETATION 29 CFR 1926.58(e)(6)(i); (g)(1)(i)(A)

MAY 3, 1990

This is in response to your letter of April 2, regarding the "Red Baron" negative air enclosure system. Enclosed is a copy of the letter sent to Global Consumer Services on February 9, by the Occupational Safety and Health Administration (OSHA).

As you can see, our previous letter to Global Consumer Services, Inc., did not approve or endorse the product. As our letter states "the Agency does not approve or endorse any products or work processes. However, when provided with adequate information, we can offer an opinion as to whether or not the use of a certain piece of equipment or process will meet the intent of the regulations."

The asbestos standard is a performance standard. As such, it does not specify the size or shape of the negative-pressure enclosure required by 29 CFR 1926.58(e)(6). The purpose of the enclosure is to prevent the spread of asbestos contamination to the outside work areas. The "Red Baron" system does constitute a negative-pressure enclosure. Compliance with OSHA regulations on a particular worksite, however, depends on proper usage and meeting all other provisions of the asbestos standard, such as air monitoring, establishment of a regulated area, etc.

Enclosure

FEB 9, 1990

This is in response to your letter of February 1 to Ms. H of my staff, requesting the Occupational Safety and Health Administration (OSHA) to provide an opinion on your "Red Baron" negative air enclosure system for asbestos removal.

As you are aware, the Agency does not approve or endorse any products or work processes. However, when provided with adequate information, we can offer an opinion as to whether or not the use of a certain piece of equipment or process will meet the intent of the regulations.

It is the Agency's opinion that the use of your system meets the intent of 29 CFR 1926.58 (e)(6) when all other provisions of the asbestos standard are met, such as air monitoring, establishment of a regulated area, designation of a competent person, etc.

However, please be aware that the effectiveness of your system can only be determined by the health and safety professional observing it in actual use under specific circumstances.

SOURCE LETTER

April 2, 1990

Re: "Red Baron" Negative Air Enclosure System

Thank you for your correspondence of March 23, 1990, responding to my FOIA request of February 26, 1990, with respect to the above-captioned system.

It is being represented in articles and advertisements (sample enclosed) that:

- 1. OSHA has "accepted" the "Red Baron" system (implying "approval"); and**
- 2. OSHA has stated that the "Red Baron" system complies with OSHA Regulations.**

I would appreciate it if you would provide me with a copy of the OSHA "acceptance"/"approval" letter.

Furthermore, can you please explain the statement contained in your February 9, 1990 letter (to Global Consumer Services, Inc.) that "the use of your system meets the intent of 29 CFR 1926.58(e)(6)...." The central question is whether or not the "system" does or does not comply with OSHA Regulations.

Enclosure:

GCS NEWS BULLETIN

Global Consumer Services, INC., 3607 W. PACIFIC AVENUE, BURBANK CALIFORNIA 91505

BID SPECS REQUIRING NATALE PATENT CONSTITUTES MISUSE OF PATENT IN VIOLATION OF FEDERAL LAW

BURBANK, CA - "No contractor is compelled to use a patented enclosure system, if an accepted no-fee, public domain system is available," Mr. C, President of (Company), manufacturers of the RED BARON line of asbestos removal equipment, said today. "Many consulting firms, writing asbestos removal specifications, are unaware of their obligation to make spec bidding available to all qualified contractors, regardless of the demands of the GPAC/Natale group to have their patent included in specifications," Mr. C added. H & H, patent attorneys, representing (Company GCS), Inc., stated "If bid specifications require a license under the Natale patent, those promulgating the bid specifications are essentially refusing to deal with otherwise qualified bidders. This is an unfair trade practice under federal law. Also it interferes with the perspective advantage of an otherwise qualified bidder in violation of the law of most states and constitutes misuse of the patent in violation of federal law. Contractors using the Natale/GPAC system are required to pay a license fee to GPAC, Inc., of (City, State). Contractors using the new OSHA accepted RED BARON HEPA-VENT system are not required to pay any license fees of any kind. The RED BARON HEPA-VENT system has been filed under public domain with the U.S. Patent Office, which in essence permits anyone to use their system without any agreed to license fees. Prior to the availability of the HEPA-VENT system, contractors were denied the right to bid on jobs if they did not have a GPAC/Natale license. With the availability of the new patent pending RED BARON HEPA-VENT, contractors have the choice of using the OSHA accepted RED BARON HEPA-VENT with no license fees, or they can purchase a license from GPAC/Natale, and use their enclosure system. "With the accepted technology inherent in the new RED BARON HEPA-VENT, the asbestos removal industry is not burdened with excessive patent fees. Previously, the building owner, as well as the contractor bore the cost of these patent fees, which meant that private as well as government buildings were paying a higher cost for asbestos removal," Mr. C said.

RECORD ID 3209

STANDARD NUMBER 1926.58(g)(1)(I)
INFORMATION DATE 900404

ABSTRACT This interpretation letter provides OSHA's opinion on The Glove Box, manufactured by Pro/Control Products, Inc., and proposed for use in removal of asbestos-containing pipe insulation. The system appears to OSHA to meet the intent of 1926.58(e)(6) when all other provisions of the asbestos standard are met, such as air monitoring, establishment of a regulated area, designation of a competent person, etc. However, the effectiveness of the system can only be determined by the health and safety professional observing it in actual use under specific circumstances.

INTERPRETATION 29 CFR 1926.58(g)(1)(I)

APR 4, 1990

This is in response to your letter of March 7, requesting an official opinion as to whether The Glove Box manufactured by Pro/Control Products, Inc., which you propose to use for the removal of asbestos-containing pipe insulation, meets the intent of the occupational safety and health requirements at 29 CFR 1926.58(e)(6).

The Occupational Safety and Health Administration (OSHA) does not approve or certify equipment or processes for use in the workplace. However, when we are provided with adequate information concerning a control method, we do offer an opinion regarding its effectiveness in achieving compliance with our requirements for employee safety and health. Therefore, this letter is not an approval or a certification of The Glove Box, but is an interpretation of our standards as they apply to the use of this system in United States workplaces.

It appears that the use of your system meets the intent of 29 CFR 1926.58(e)(6) when all other provisions of the asbestos standard are met, such as air monitoring, establishment of a regulated area, designation of a competent person, etc. However, please be aware that the effectiveness of your system can only be determined by the health and safety professional observing it in actual use under specific circumstances.

RECORD ID 3549

STANDARD NUMBER 1926.58(g)(1)(i)
INFORMATION DATE 900823

ABSTRACT

This clarification letter addresses the use of Portam Process asbestos abatement equipment produced by Hydrous Dust Control Systems, Inc. OSHA does not approve or certify equipment or processes used in the workplace. Based on data submitted, it appears that the use of the Portam Process system for the removal of asbestos-containing pipe insulation can prevent a release of significant asbestos contamination. The intent of OSHA's negative pressure enclosure requirement in 1926.58(e)(6) for large scale removal operations is to confine the asbestos being generated to the area within the enclosure. Because the purpose of performing removal work within negative pressure enclosures would be met by the use of this system (which is not a negative pressure system), OSHA is of the opinion that a negative pressure enclosure is not necessary if specifically listed conditions are met.

INTERPRETATION 29 CFR 1926.58(g)(1)(i)

AUG 23, 1990

This is in response to your letter of May 31, requesting an official opinion as to whether the Portam Process asbestos abatement equipment, which you propose to use for the removal of asbestos-containing pipe insulation, meets the intent of the occupational safety and health requirements at 29 CFR 1926.58(e)(6).

The Occupational Safety and Health Administration (OSHA) does not approve or certify equipment or processes for use in the workplace. However, when we are provided with adequate information concerning a control method, we do offer an opinion regarding its effectiveness in achieving compliance with our requirements for employee safety and health. Therefore, this letter is not an approval or a certification of the Portam Process, but is an interpretation of our standards as they apply to the use of this system in United States workplaces.

The intent of OSHA's negative pressure enclosure requirement in paragraph (e)(6) for large scale removal operations is primarily to confine the asbestos being generated to the area within the enclosure and thus protect other employees and bystanders on the site from exposure to excessive levels of asbestos. Based on the data you have submitted, it appears that the use of your system, by employees trained pursuant to your training program, can prevent a release of significant asbestos contamination, thereby minimizing asbestos exposure of bystander employees.

Because the purpose of performing removal work within negative pressure enclosures would be met by the use of your system, OSHA does not consider that such enclosures are necessary if the following conditions are met:

- 1) All other provisions of OSHA's asbestos standard for construction must be complied with.
- 2) Employees operating the system must be trained pursuant to the training program described in your submission.
- 3) Regulated areas pursuant to 29 CFR 1926.58 (e)(1) through (5) must be demarcated and posted around the areas subject to removal with your system.
- 4) Air monitoring must be conducted at each job site during and after the removal to assess the level of asbestos exposure to employees performing the removal and to those immediately outside the regulated area. Such monitoring would be essential for evaluating the effectiveness of the Portam system.

Please be aware that the effectiveness of your system can only be determined by the health and safety professional observing it in actual use under specific circumstances.

Also note that OSHA has published a proposed revision of its asbestos standards on July 20, 1990 (55 FR 29712), a copy of which is enclosed. Therein, OSHA is re-examining its regulatory policy concerning the continuation and/or expansion of negative pressure enclosure requirements for removal work. New technology, explicitly your system, is discussed on page 29717 of the Federal Register notice. OSHA indicates that it "will consider providing for new technology in the final standard to the extent supported by the record developed in this rulemaking."

The data you have submitted is now in the rulemaking record. We encourage you to submit further data to the rulemaking record and to participate in that proceeding.

This letter of interpretation will be superseded by a subsequent evaluation developed by the Agency based on a review of the entire rulemaking record developed in the pending asbestos rulemaking proceeding.

RECORD ID 3578

STANDARD NUMBER 1926.58(g)(1)(i)(D); 1926.58(e)(6)(i)
INFORMATION DATE 890705

ABSTRACT The use of "Negative Air Bags" meets the requirement for establishing a negative-pressure enclosure pursuant to 1926.58(e)(6), provided that all of the other provisions of the construction asbestos standard are met. The use of glove bags to remove specific quantities of pipe insulation under continuous negative pressure and with all other provisions of the standard in operation, meets both the letter and the intent of the standard with regard to removal practices and procedures.

INTERPRETATION 29 CFR 1926.58(g)(1)(i)(D); 1926.58(e)(6)(i)

Nov 17, 1989

MEMORANDUM FOR: ALL REGIONAL ADMINISTRATORS

SUBJECT: The Use of Glove Bags Pursuant to 29 CFR 1926.58

Recent asbestos abatement industry trade journals and newsletters have reported that OSHA has "banned" the use of glove bags. These stories are the result of several cases where employers were cited for performing large-scale asbestos removal operations via glove bagging, without establishing a negative-pressure enclosure in accordance with 29 CFR 926.58(e)(6).

This memorandum is not a change in policy but a reiteration of OSHA's position. As you know, OSHA's position is that the requirements to establish negative-pressure enclosures pursuant to 29 CFR 1926.58 (e)(6) is a specification standard which is predicated upon the type of job being performed and not the employee exposure levels. Thus, for large-scale removal of asbestos from pipes the employer must first establish a negative-pressure enclosure. Once the containment is established, the employer has an obligation to ensure that his/her employees' exposures remain below the PEL of 0.2 fiber/cc. Glove bags are one method specified in 29 CFR 1926.58 (g)(1) for controlling exposures within the negative pressure enclosure.

A recent study of glove bag methods of asbestos removal conducted by the National Institute for Occupational Safety and Health (NIOSH) in conjunction with the Environmental Protection Agency (EPA) showed that 58% of the employees tested were exposed above the OSHA's action level of 0.1 f/cc when engaged in multiple glove bag operations. To reduce worker exposure, proper glove bag procedures are essential, as outlined in appendix G. Glove bags are permitted for use in small-scale, short duration jobs, which OSHA Instruction CPL 2-2.40 defined in paragraph H.3.c [(1)-(4)] as follows:

- (1) Maintenance or renovation tasks, where the removal of asbestos-containing materials is not the primary goal of the job (e.g., repairing a valve which entails the removal of asbestos, installing electrical conduit which must be fastened to asbestos-cement siding, etc.)
- (2) Activities where employees' exposures to asbestos can be kept below the action level via worker isolation techniques, such as glove bags or other methods described in Appendix G.
- (3) An operation which has been included in the employer's asbestos maintenance program (as required in Appendix G) of all employers who are claiming an exemption from the requirements of 29 CFR 1925.58 (e)(6)).
- (4) Non-repetitive operations (viz.: not a series of small-scale jobs, which if performed at one time would have resulted in a large-scale removal).

All of the requirements in paragraphs (1) through (4) above must be met in order for a job to be considered a small-scale, short duration operation. If the small-scale, short duration exemption is claimed, Appendix G of the standard must be followed.

OSHA has also considered EPA's interpretation in Appendix B to subpart E of their standard, 40 CFR Part 763 in which small-scale, short duration is defined as:

- removal of asbestos-containing thermal system insulation not to exceed amounts greater than those which can be contained in a single glove bag, or
- repairs, involving encapsulation, enclosure or removal, to small amounts of friable asbestos-containing material only if required in the performance of emergency or routine maintenance activity and not intended solely as asbestos abatement. Such work may not exceed amounts greater than those which can be contained in a single prefabricated mini-enclosure.

An example of where glove bags may be used is in a building with several rooms, each room having a few feet of asbestos pipe insulation to be removed. Negative-pressure enclosures are not required if each room needs only a single glove bag (fixed location) to contain the removed asbestos-containing materials (ACM).

OSHA has considered one type of glove bag known as the Negative Air Bag and also rigid glove bags to meet the intent of the standard with regard to large-scale removal practices and procedures, when used in the following manner:

1. Glove bags are modified in such a way as to maintain continuous negative pressure inside the bags. The integrity of the negative pressure system shall be demonstrated by smoke testing.
2. The area to be worked on must be established as a regulated area with barrier tape and appropriate warning signs, and all employers within the immediate vicinity must have been notified of the abatement project. Respirators and protective clothing shall be provided and worn.
3. The area of insulation to be removed shall be wet-wiped and encapsulated prior to removal.
4. The bag shall be attached to the pipe using approved methods. If the size of the pipe warrants it, a small, rigid plastic collar is inserted into the bag to insure that the bag does not collapse when negative pressure is created. All of the necessary tools and equipment shall be inserted into the bag prior to its being sealed.
5. The worker shall begin the removal process, using all of the normal engineering controls, including amended water. During the removal process, personal sampling shall be conducted in accordance to air monitoring requirements.
6. When the removal of the insulation has been completed, the glove bag shall be removed by the approved method and then treated as asbestos waste. The removal process must be thorough and shall include encapsulant being sprayed onto the open ends of the pipe.
7. When the removal of the asbestos-containing materials has been completed, the workers are required to undergo complete decontamination in the decontamination unit set up nearby. Using glove bags to remove pipe insulation in this manner, under continuous negative pressure and with all other provisions of the standard in operation, meets both the letter and the intent of the standard with regard to removal practices and procedures.

OSHA is presently under court order to clarify the definition of small-scale, short duration operations. The asbestos directive, CPL 2-2.40, published on September 1, 1987, will be updated to include current interpretations.

JUL 5, 1989

This is in response to your letter of May 3, regarding the use of a "Negative Air Bag" in the removal of asbestos pipe insulation. It is the opinion of the Occupational Safety and Health Administration (OSHA) that the use of "Negative Air Bags" as described in your letter meets the requirement for establishing a negative-pressure enclosure pursuant to 29 CFR 1926.58(e)(6), provided that all of the other provisions of the construction asbestos standard are met.

RECORD ID

3862

STANDARD NUMBER
INFORMATION DATE

1926.58; 1926.58(e)(6)(i); (e)(6)(iv); (Appendix G)
901015

ABSTRACT

The Agency is presently proposing to clarify the negative-pressure enclosure requirement and the definition of small-scale, short-duration operations through amended rulemaking procedures as published 20 July 1990 (55FR 29712). OSHA is proposing to apply the requirement for employers to establish negative-pressure enclosures before commencing any asbestos removal, demolition, and renovation operation, regardless of the exposure level, unless specifically exempted. In the interim, the OSHA policy is to enforce the negative-pressure enclosure requirement in all cases involving asbestos removal, demolition, and renovation projects where the erection of an enclosure is feasible, except for small-scale, short duration operations.

INTERPRETATION

29 CFR 1926.58; 1926.58(e)(6)(i); (e)(6)(iv); (Appendix G)

OCT 15, 1990

MEMORANDUM FOR: ALL REGIONAL ADMINISTRATORS

SUBJECT: Enforcement Policy Regarding Negative Pressure Enclosures and Related Issues

Pursuant to 29 CFR 1926.58(e)(6), wherever feasible, the employer shall establish negative pressure enclosures before commencing asbestos removal, demolition, and renovation operations. The purpose of the negative-pressure enclosures is to restrict the spread of asbestos dust that may be generated when large amounts of asbestos-containing material are handled during asbestos removal, renovation, and demolition operations.

In a recent case in Region V, *Secretary of Labor v. Nimco, Inc.* (OSHRC Docket No. 89-136 and 89-1703), the Occupational Safety and Health Review Commission administrative law judge (ALJ) found that "a reasonable person reading the standard would assume that paragraph (e) addresses regulated areas, and subparagraphs (e)(1) - (6) address specific aspects of the general subject." In other words, paragraphs (e)(1) - (e)(6) must be regarded as a whole and the establishment of the regulated area or a negative-pressure enclosure is dependent upon whether or not the airborne concentration of asbestos would exceed or reasonably be expected to exceed the permissible exposure limits. In the Nimco case, the judge found that fiber levels monitored by the employer were shown to be below the permissible exposure levels; therefore, the judge ruled that a negative-pressure enclosure and decontamination facilities were not required. The judge also found that Nimco's removal of asbestos-containing materials from pipes using the glove bag method qualified for the small-scale, short-duration operation exemption under 1926.58(e)(6)(iv), and therefore, neither negative-pressure enclosure nor decontamination facilities was required.

Although we disagree with the judge's ruling, there is little basis upon which a successful appeal of the decision could be sustained. As interpreted by the judge, the plain meaning of the standard requires the showing of an overexposure or a reasonable expectation of an overexposure as a precondition to establishing a regulated area. Although the preamble states that the standard has a two-tiered approach in recognition of the wide diversity of construction projects, the standard itself does not contain such explicit language. The preamble states that paragraphs (e)(1) through (e)(5) contain OSHA's requirements for regulated areas on construction projects other than removal, demolition and renovation operations, while paragraph (e)(6) specifies the more extensive and stringent requirements for the enclosed negative-pressure regulated areas required for removal, demolition, and renovation operations. The standard's lack of distinction of the different requirements for two types of regulated areas has been a recurring problem in other legal cases involving asbestos abatement.

The Agency is presently proposing to clarify the negative-pressure enclosure requirement and the definition of small-scale, short-duration operations through amended rulemaking procedures. OSHA is proposing to apply the requirement for employers to establish negative-pressure enclosures before commencing any asbestos removal, demolition, and renovation operation, regardless of the exposure

level, unless specifically exempted. The proposed revisions to the current asbestos regulations were published in the July 20, 1990, Federal Register (55FR29712).

In the interim, our policy is to enforce the negative-pressure enclosure requirement in all cases involving asbestos removal, demolition, renovation projects where the erection of an enclosure is feasible, except for small-scale, short duration operations, in which case the requirements of Appendix G of the standard must be met. Employers claiming the exemption for small-scale, short-duration operations while performing asbestos removal via glove bags must follow proper glove bagging procedures prescribed in Appendix G.

Before issuing a citation for not establishing a regulated area or a negative-pressure enclosure, a compliance officer must document the likelihood or potential of an operation exceeding the permissible exposure levels (8-hour TWA or 30-minute excursion limit). The standard as written compels the Agency to carry the burden of proving that the employer exposed employees or potentially could have exposed employees to airborne concentrations of asbestos above the permissible exposure limits (PEL's) before any of the provisions of 1926.58 (e)(1) through (e)(6) may be cited. In absence of any exposure or initial monitoring by the employer, or monitoring data collected by the CSHO, the CSHO shall cite 1926.58(f)(1)(i) or (f)(2)(i), where the Agency has no way of proving that workplace airborne asbestos levels were in excess of the PEL's. Without such a showing, OSHA cannot sustain the burden of proving worksite conditions which would trigger the employer's duty to establish a regulated area pursuant to 1926.58(e)(1) through (e)(6). In cases where the employer relies on exposure data compiled from previous jobs in lieu of performing initial monitoring, the employer must demonstrate that the previous data was obtained during work operations conducted under workplace conditions closely resembling the processes, type of material, control methods, work practices, and environmental conditions used and prevailing in the employer's current operations. (See 1926.58(f)(2)(iii)). The CSHO shall also verify the validity of the employer's air sampling method and document any unpredictable variability of levels to rebut the employer's claim that the establishment of a regulated area was not warranted.

The negative-pressure enclosure requirement also applies to roofing operations, unless the construction of the enclosure is infeasible due to physical obstruction or that the enclosure would create a more immediate health or safety hazard to employees, i.e. heat stress or confined toxic gasses. Where the employer has instituted engineering and work practice controls that restrict the spread of asbestos and protect bystanders during the entire work process, the intent of requiring the negative-pressure enclosure under 1926.58 (e)(6) would be met. The effectiveness of the controls must be supported by employer's exposure data.

Regarding the definition of small-scale, short-duration operations, OSHA's proposed standard's language differs from our current interpretation. For example, our current interpretation considers three linear feet or one glove bag as small-scale, short-duration; the proposed standard is considering 21 linear feet. However, the proposed standard also requires a specifically trained competent person to oversee the operations. Therefore, our interim policy is to classify as de minimis, per FOH instruction, potential violations involving operations which are not in accord with OSHA's current interpretation of small-scale short-duration but meet all the requirements for small-scale short-duration projects as outlined in the proposed standard. This policy, of course, will change pending the completion of amended rulemaking proceedings. If you need further assistance, please contact the Office of Health Compliance Assistance.

RECORD ID

4079

STANDARD NUMBER
INFORMATION DATE1926.58(e)(6)(I)
901031

ABSTRACT

This interpretation addresses the need to have negative-pressure enclosure for roofing operations involving removal of asbestos-containing shingles. Removal of asbestos-containing roof shingles is considered an asbestos removal project; therefore, the 1910.58(e)(6) requirement to establish a negative-pressure enclosure applies. If an employer can demonstrate via past monitoring data that the engineering and work practice controls used are as effective as the negative pressure enclosure in limiting the spread of asbestos to the work area, the intent of paragraph (e)(6) is considered to be met.

INTERPRETATION

29 CFR 1926.58(e)(6)(I)

OCT 31, 1990

MEMORANDUM**SUBJECT: Asbestos Enclosure for Roofing Operations**

This is in response to your memorandum of February 8, concerning the need to have a negative-pressure enclosure for roofing operations involving removal of asbestos-containing shingles. Our current asbestos standard, 29 CFR 1925.58, requires the employer to establish a negative-pressure enclosure for asbestos removal, renovation, demolition operations, wherever feasible. Removal of asbestos-containing roof shingles is considered an asbestos removal project; therefore paragraph (e)(6) of 29 CFR 1926.58 does apply.

Further guidance to the field regarding the application of 29 CFR 1910.58(e)(6) is provided in our memorandum of October 15, 1990 to all Regional Administrators on the subject of Enforcement Policy Regarding Negative Pressure Enclosures and Related Issues. A copy is attached for your information.

Roofing work has not been considered comparable to floor tile work because roof shingles are more susceptible to deterioration due to exposure to the elements. However, OSHA is reconsidering the roofing issue in the proposed rulemaking revisions published in the July 20, 1990, Federal Register. Presently, 29 CFR 1926.58 (e)(6) is still applicable to removal of asbestos-containing shingles. However, if an employer can demonstrate via past monitoring data that the engineering and work practice controls used are as effective as the negative pressure enclosure in limiting the spread of asbestos to the work area, the intent of paragraph (e)(6) is considered to be met. I trust this guidance adequately responds to the issues you raised.

OCT 15, 1990

MEMORANDUM**SUBJECT: Enforcement Policy Regarding Negative Pressure Enclosures and Related Issues**

Pursuant to 29 CFR 1926.58(e)(6), wherever feasible, the employer shall establish negative pressure enclosures before commencing asbestos removal, demolition, and renovation operations. The purpose of the negative-pressure enclosures is to restrict the spread of asbestos dust that may be generated when large amounts of asbestos-containing material are handled during asbestos removal, renovation, and demolition operations.

In a recent case in Region V, Secretary of Labor v. Nimco, Inc. (OSHRC Docket No. 89-136 and 89-1703), the Occupational Safety and Health Review Commission administrative law judge (ALJ) found that "a reasonable person reading the standard would assume that paragraph (e) addresses regulated areas, and subparagraphs (e)(1) - (6) address specific aspects of the general subject." In other words, paragraphs (e)(1) - (e)(6) must be regarded as a whole and the establishment of the regulated area or a negative-

pressure enclosure is dependent upon whether or not the airborne concentration of asbestos would exceed or reasonably be expected to exceed the permissible exposure limits. In the Nimco case, the judge found that fiber levels monitored by the employer were shown to be below the permissible exposure levels; therefore, the judge ruled that a negative-pressure enclosure and decontamination facilities were not required. The judge also found that Nimco's removal of asbestos-containing materials from pipes using the glove bag method qualified for the small-scale, short-duration operation exemption under 1926.58(e)(6)(iv), and therefore, neither negative-pressure enclosure nor decontamination facilities was required.

Although we disagree with the judge's ruling, there is little basis upon which a successful appeal of the decision could be sustained. As interpreted by the judge, the plain meaning of the standard requires the showing of an overexposure or a reasonable expectation of an overexposure as a precondition to establishing a regulated area. Although the preamble states that the standard has a two-tiered approach in recognition of the wide diversity of construction projects, the standard itself does not contain such explicit language. The preamble states that paragraphs (e)(1) through (e)(5) contain OSHA's requirements for regulated areas on construction projects other than removal, demolition and renovation operations, while paragraph (e)(6) specifies the more extensive and stringent requirements for the enclosed negative-pressure regulated areas required for removal, demolition, and renovation operations. The standard's lack of distinction of the different requirements for two types of regulated areas has been a recurring problem in other legal cases involving asbestos abatement.

The Agency is presently proposing to clarify the negative-pressure enclosure requirement and the definition of small-scale, short-duration operations through amended rulemaking procedures. OSHA is proposing to apply the requirement for employers to establish negative-pressure enclosures before commencing any asbestos removal, demolition, and renovation operation, regardless of the exposure level, unless specifically exempted. The proposed revisions to the current asbestos regulations were published in the July 20, 1990, Federal Register (55FR29712).

In the interim, our policy is to enforce the negative-pressure enclosure requirement in all cases involving asbestos removal, demolition, renovation projects where the erection of an enclosure is feasible, except for small-scale, short duration operations, in which case the requirements of Appendix G of the standard must be met. Employers claiming the exemption for small-scale, short-duration operations while performing asbestos removal via glove bags must follow proper glove bagging procedures prescribed in Appendix G.

Before issuing a citation for not establishing a regulated area or a negative-pressure enclosure, a compliance officer must document the likelihood or potential of an operation exceeding the permissible exposure levels (8-hour TWA or 30-minute excursion limit). The standard as written compels the Agency to carry the burden of proving that the employer exposed employees or potentially could have exposed employees to airborne concentrations of asbestos above the permissible exposure limits (PEL's) before any of the provisions of 1926.58 (e)(1) through (e)(6) may be cited. In absence of any exposure or initial monitoring by the employer, or monitoring data collected by the CSHO, the CSHO shall cite 1926.58(f)(1)(i) or (f)(2)(i), where the Agency has no way of proving that workplace airborne asbestos levels were in excess of the PEL's. Without such a showing, OSHA cannot sustain the burden of proving worksite conditions which would trigger the employer's duty to establish a regulated area pursuant to 1926.58(e)(1) through (e)(6). In cases where the employer relies on exposure data compiled from previous jobs in lieu of performing initial monitoring, the employer must demonstrate that the previous data was obtained during work operations conducted under workplace conditions closely resembling the processes, type of material, control methods, work practices, and environmental conditions used and prevailing in the employer's current operations. (See 1926.58(f)(2)(iii)). The CSHO shall also verify the validity of the employer's air sampling method and document any unpredictable variability of levels to rebut the employer's claim that the establishment of a regulated area was not warranted.

The negative-pressure enclosure requirement also applies to roofing operations, unless the construction of the enclosure is infeasible due to physical obstruction or that the enclosure would create a more immediate health or safety hazard to employees, i.e., heat stress or confined toxic gases. Where the employer has instituted engineering and work practice controls that restrict the spread of asbestos and protect bystanders during the entire work process, the intent of requiring the negative-pressure enclosure under 1926.58 (e)(6) would be met. The effectiveness of the controls must be supported by employer's exposure data.

Regarding the definition of small-scale, short-duration operations, OSHA's proposed standard's language differs from our current interpretation. For example, our current interpretation considers three linear feet or one glove bag as small-scale, short-duration; the proposed standard is considering 21 linear feet. However, the proposed standard also requires a specifically trained competent person to oversee the operations. Therefore, our interim policy is to classify as de minimis, per FOM instruction, potential violations involving operations which are not in accord with OSHA's current interpretation of small-scale short-duration but meet all the requirements for small-scale short-duration projects as outlined in the proposed standard. This policy, of course, will change pending the completion of amended rulemaking proceedings. If you need further assistance, please contact the Office of Health Compliance Assistance.

SOURCE LETTER

February 8, 1990

MEMORANDUM

SUBJECT: Asbestos Enclosures for Roofing Operations

This is to request guidance concerning the need to have a negative pressure enclosure for roofing operations involving removal of asbestos containing shingles. This office has received verbal guidance in the past which stated that such roofing operations were to be done in negative pressure enclosures when feasible since the operations would be covered under by 29 CFR 1926.58(e)(6). It appears, however, that such roofing operations may actually not be intended to be covered by paragraph (e)(6) but by paragraph (e)(1) of the standard which would only require that a regulated area be established if asbestos levels exceeded the PEL and then would require that the regulated area be demarcated in some manner as detailed in paragraph (e)(2) of the standard. This appears to be the intention of the standard as referenced in the preamble's description of the term "removal" as a high exposure operation involving friable asbestos (Federal Register, Vol. 51, No. 119, page 22708). Removal of roof shingles typically results in levels of asbestos below the action level and involves non-friable asbestos. In addition, CPL 2-2.40 states on page 6 that "employers performing general" construction operations, such as the cutting of asbestos-cement sheets, the lathing of asbestos-cement pipes or the removal of asbestos-containing floor tiles, are required to establish regulated areas in accordance with 29 CFR 1926.58 (e)(1) and demarcated in accordance with 29 CFR 1926.58 (e)(2)." The exposures generated during the removal of asbestos shingles would be comparable to exposures encountered during the removal of floor tile.

This issue has raised significant concern in the roofing industry, therefore an expedited response is requested. Please contact Mr. J of my staff if there are any questions.

RECORD ID

4061

STANDARD NUMBER
INFORMATION DATE

1926.58(e)(6)(i); (e)(6)(iv); (f)(1)(i)
901029

ABSTRACT

OSHA's current policy is to enforce the negative-pressure requirement in all cases involving asbestos removal, demolition, and renovation projects where feasible except for small-scale, short-duration operations. Because the Agency bears the burden of proving a health hazard, the CSHO must be able to demonstrate that exposure levels exceed or can be reasonably expected to exceed the 8-hour time-weighted-average or the 30 minute excursion limits.

INTERPRETATION

29 CFR 1926.58(e)(6)(i); (e)(6)(iv); (f)(1)(i)

OCT 29, 1990

MEMORANDUM

SUBJECT: Enforcement Policy Regarding Negative- Pressure Enclosures.

This is in response to your memorandum of July 27, regarding your letter to the (State) Department of Labor concerning negative-pressure enclosures and other asbestos issues. You requested our review and concurrence on your response number 1.

We concur with your statements that negative-pressure enclosures are required, where feasible, for all asbestos removal, demolition and renovation jobs except for small-scale, short-duration operations and that the burden of proving a health hazard is upon the agency. Our current policy is to enforce the negative-pressure requirement in all cases involving asbestos removal, demolition, renovation projects where feasible except for small-scale, short-duration operations.

However, since the Agency bears the burden of proving a health hazard, the CSHO must be able to demonstrate that exposure levels exceed or can be reasonably exceed the 8-hour time-weighted-average or the 30 minute excursion limits. Enclosed is a copy of our most recent enforcement policy regarding negative-pressure enclosures. If we can be of further assistance, please do not hesitate to contact us again.

Enclosure:

OCT 15, 1990

MEMORANDUM FOR: ALL REGIONAL ADMINISTRATORS

SUBJECT: Enforcement Policy Regarding Negative Pressure Enclosures and Related Issues

Pursuant to 29 CFR 1926.58(e)(6), wherever feasible, the employer shall establish negative pressure enclosures before commencing asbestos removal, demolition, and renovation operations. The purpose of the negative-pressure enclosures is to restrict the spread of asbestos dust that may be generated when large amounts of asbestos-containing material are handled during asbestos removal, renovation, and demolition operations.

In a recent case in Region V, Secretary of Labor v. Nimco, Inc. (OSHRC Docket No. 89-136 and 89-1703), the Occupational Safety and Health Review Commission administrative law judge (ALJ) found that "a reasonable person reading the standard would assume that paragraph (e) addresses regulated areas, and subparagraphs (e)(1) - (6) address specific aspects of the general subject." In other words, paragraphs (e)(1) - (e)(6) must be regarded as a whole and the establishment of the regulated area or a negative-pressure enclosure is dependent upon whether or not the airborne concentration of asbestos would exceed or reasonably be expected to exceed the permissible exposure limits. In the Nimco case, the judge found that fiber levels monitored by the employer were shown to be below the permissible exposure levels; therefore, the judge ruled that a negative-pressure enclosure and decontamination

facilities were not required. The judge also found that Nimco's removal of asbestos-containing materials from pipes using the glove bag method qualified for the small-scale, short-duration operation exemption under 1926.58(e)(6)(iv), and therefore, neither negative-pressure enclosure nor decontamination facilities was required.

Although we disagree with the judge's ruling, there is little basis upon which a successful appeal of the decision could be sustained. As interpreted by the judge, the plain meaning of the standard requires the showing of an overexposure or a reasonable expectation of an overexposure as a precondition to establishing a regulated area. Although the preamble states that the standard has a two-tiered approach in recognition of the wide diversity of construction projects, the standard itself does not contain such explicit language. The preamble states that paragraphs (e)(1) through (e)(5) contain OSHA's requirements for regulated areas on construction projects other than removal, demolition and renovation operations, while paragraph (e)(6) specifies the more extensive and stringent requirements for the enclosed negative-pressure regulated areas required for removal, demolition, and renovation operations. The standard's lack of distinction of the different requirements for two types of regulated areas has been a recurring problem in other legal cases involving asbestos abatement.

The Agency is presently proposing to clarify the negative-pressure enclosure requirement and the definition of small-scale, short-duration operations through amended rulemaking procedures. OSHA is proposing to apply the requirement for employers to establish negative-pressure enclosures before commencing any asbestos removal, demolition, and renovation operation, regardless of the exposure level, unless specifically exempted. The proposed revisions to the current asbestos regulations were published in the July 20, 1990, Federal Register (55FR29712).

In the interim, our policy is to enforce the negative-pressure enclosure requirement in all cases involving asbestos removal, demolition, renovation projects where the erection of an enclosure is feasible, except for small-scale, short duration operations, in which case the requirements of Appendix G of the standard must be met. Employers claiming the exemption for small-scale, short-duration operations while performing asbestos removal via glove bags must follow proper glove bagging procedures prescribed in Appendix G.

Before issuing a citation for not establishing a regulated area or a negative-pressure enclosure, a compliance officer must document the likelihood or potential of an operation exceeding the permissible exposure levels (8-hour TWA or 30-minute excursion limit). The standard as written compels the Agency to carry the burden of proving that the employer exposed employees or potentially could have exposed employees to airborne concentrations of asbestos above the permissible exposure limits (PEL's) before any of the provisions of 1926.58(e)(1) through (e)(6) may be cited. In absence of any exposure or initial monitoring by the employer, or monitoring data collected by the CSHO, the CSHO shall cite 1926.58(f)(1)(i) or (f)(2)(i), where the Agency has no way of proving that workplace airborne asbestos levels were in excess of the PEL's. Without such a showing, OSHA cannot sustain the burden of proving worksite conditions which would trigger the employer's duty to establish a regulated area pursuant to 1926.58(e)(1) through (e)(6). In cases where the employer relies on exposure data compiled from previous jobs in lieu of performing initial monitoring, the employer must demonstrate that the previous data was obtained during work operations conducted under workplace conditions closely resembling the processes, type of material, control methods, work practices, and environmental conditions used and prevailing in the employer's current operations. (See 1926.58(f)(2)(iii)). The CSHO shall also verify the validity of the employer's air sampling method and document any unpredictable variability of levels to rebut the employer's claim that the establishment of a regulated area was not warranted.

The negative-pressure enclosure requirement also applies to roofing operations, unless the construction of the enclosure is infeasible due to physical obstruction or that the enclosure would create a more immediate health or safety hazard to employees, i.e. heat stress or confined toxic gasses. Where the employer has instituted engineering and work practice controls that restrict the spread of asbestos and protect bystanders during the entire work process, the intent of requiring the negative-pressure enclosure under 1926.58(e)(6) would be met. The effectiveness of the controls must be supported by employer's exposure data.

Regarding the definition of small-scale, short-duration operations, OSHA's proposed standard's language differs from our current interpretation. For example, our current interpretation considers three linear feet or one glove bag as small-scale, short-duration; the proposed standard is considering 21 linear feet. However, the proposed standard also requires a specifically trained competent person to oversee the operations. Therefore, our interim policy is to classify as de minimis, per FOM instruction, potential

violations involving operations which are not in accord with OSHA's current interpretation of small-scale short-duration but meet all the requirements for small-scale short-duration projects as outlined in the proposed standard. This policy, of course, will change pending the completion of amended rulemaking proceedings. If you need further assistance, please contact the Office of Health Compliance Assistance.

SOURCE LETTERS

JUL 27, 1990

MEMORANDUM

SUBJECT: Enforcement Policy Regarding Negative-Pressure Enclosures

The enclosed OSHA letter to the (State) Department of Labor (NC-DOL) reflects Region IV's enforcement policy regarding negative-pressure enclosures and other issues raised in the enclosed June 26 letter from XX-DOL. Your review and concurrence on the policy issue addressed in our response number 1 to (State) issues 1 and 2 is requested.

Enclosures

JUL 27, 1990

In response to your letter dated June 26 requesting clarification of enforcement policy related to 29 CFR 1926.58, the following information is provided:

1. Regarding items 1 and 2, the regional policy for 1926.58(e)(6) is to require negative-pressure enclosures, where feasible, for all asbestos removal, demolitions, and similar jobs, except for small-scale, short-duration operations as defined in 1926.58(e)(6)(iv). The purpose of this policy is to protect workers not directly involved in the removal from exposure to asbestos. The negative-pressure enclosures restrict the spread of asbestos dust that may be generated when large amounts of asbestos containing material are handled during asbestos removal. The preamble to the asbestos standard states that negative pressure enclosures will prevent the exposure of these workers to concentration of asbestos fibers that exceed the action level. Even though the burden of proving a hazard is upon the agency, this region has not received any adverse judicial decisions regarding this enforcement policy. We are aware that cases where exposures to asbestos are not likely to exceed the action level may pose problems in demonstrating an inhalation hazard. Because of these concerns, we will ask the national office to review this policy for concurrence.
2. Regarding items 3 and 4, the exception in Paragraph (e)(6)(iv) is limited only to exempting the employer from the other requirements of Paragraph (e)(6). Thus, all other provisions of the standard are applicable to small-scale, short-duration operations, including the monitoring requirements.
3. Regarding item 5, OSHA Instruction CPL 2.45B, the Revised Field Operation Manual, (Chapter III, page 54, Paragraph D.8.b.(4)) governs the collection of samples and the evaluation of the results for work schedules other than the usual 8-hour work shift.

June 26, 1990

RE: Clarification of Enforcement Policy: 29 CFR 1926.58

This letter will document a formal request by the (State) Division of Occupational Safety and Health, for assistance in clarifying federal OSHA's compliance/enforcement policy regarding the following items from the asbestos construction standard at 29 CFR 1926.58, and the air contaminant standard at 1910.1000:

1. Must employers establish negative-reassure enclosures for all jobs (where feasible) before commencing any asbestos removal, demolition, and/or renovation operation except for small-scale, short-duration operations as per 1926.58(e)(6)(iv), no matter what the employee exposure level?

2. What is OSHA's record of citations with regard to the establishment of negative-pressure enclosures for tasks where the Permissible Exposure Levels, Excursion Levels, and/or Action Levels are not met or exceeded.
3. In order to qualify for the exception provision of 1926.58(e)(6)(iv), does a facility that has asbestos-containing materials need to have a complete asbestos assessment or can the employer assume all areas that have not been assessed do contain asbestos, and act accordingly?
4. Is exposure-monitoring required for small-scale, short-duration operations, at 1926.58(e)(6)(iv)?
5. Is there any provision for adjustment of the PEL's for air contaminants in Table Z-1-A of 29 CFR 1910.1000 for periods greater than an 8-hour work shift and/or a 40-hour week? If so, what are the source documents?

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6 of 9

RECORD ID 1751

STANDARD NUMBER 1926.58(e)(6)(ii)
INFORMATION DATE 870526

ABSTRACT This interpretation letter clarifies the requirements for presence of a "competent person" at a job site. Under 1926.58(e)(6)(ii), a competent person is required to be at the job site at all times when supervising the abatement process.

INTERPRETATION 29 CFR 1926.58(e)(6)(ii)

MAY 26, 1987

This is in response to your letter of January 20, 1987 requesting an interpretation of the Occupational Safety and Health Administration's (OSHA) Asbestos standard for construction, 29 CFR 1926.58. Please accept my apology for the delay in response. The overwhelming number of letters and telephone calls regarding the asbestos standard has caused unavoidable delays in responding to the public's concern.

Your letter specifically refers to 29 CFR 1926.58(e)(6)(ii) where you asked the following question:

Is a competent person required to be at the job site at all times when supervising the abatement process?

Yes, a competent person is required to be at the job site at all times when supervising the abatement process.

RECORD ID

1747

STANDARD NUMBER
INFORMATION DATE1926.58(f)(4)(ii); 1926.58(f)(4)(i); 1926.58(f)(3); 1926.58(f)(2)(i)
870421

ABSTRACT

This interpretation of 1926.58(f) addresses an employer's monitoring obligation when the initial exposure monitoring indicates that employee exposures are between the action level and the permissible exposure limit. The standard implies that daily air monitoring is to continue until exposures are reliably documented to be below the action level.

INTERPRETATION

29 CFR 1926.58(f)(4)(ii); 1926.58(f)(4)(i); 1926.58(f)(3); 1926.58(f)(2)(i)

APR 21, 1987

MEMORANDUM**SUBJECT:** Request for Interpretation of 29 CFR 1926.58(f)

This is in response to your letter of December 24, 1986, regarding the above captioned subject. Specifically, your question is: "What is an employee's monitoring obligation when the initial exposure monitoring indicates that employee exposures are between the action level and the permissible exposure limit?"

As you mention in your letter, 29 CFR 1926.58(f)(4) states: "If the periodic monitoring required by paragraph (f)(3) of this section reveals that employee exposures, as indicated by statistically reliable measurements; are below the action level, the employer may discontinue monitoring for those employees whose exposures are represented by such monitoring."

The standard, under paragraph 29 CFR 1926.58(f)(4), clearly places emphasis on the need to utilize sampling methodologies and strategies that will result in an accurate representation of employee exposure. Because of the narrow limits of exposure between the action level and the PEL, credible substantiation of exposures within this range will be difficult. In most cases, this will require multiple samples and careful observation of work practices and the effects of variation of those practices on exposure levels. Because of the difficulties mentioned above it is appropriate to conclude that the standard implicitly intended daily monitoring to continue until exposures are reliably documented to be below the action level. For compliance purposes citations shall be issued for violations of appropriate sections of 29 CFR 1926.58(f) whenever employers are relying on sampling data that does not adequately represent employee exposure.

When evaluating the obligations of the employer to perform additional sampling in accordance with paragraph (f)(2)(i), the following criteria should be considered:

- How much monitoring data does the employer have for the job in question?
- Is the operation one for which the employee exposures would be expected to be below the action level?
- Is the operation one in which employee exposures are likely to fluctuate?

If, after a thorough examination of the data, it is concluded that the monitoring results do accurately portray the employees' exposures and the monitoring results are below the action level, then additional sampling would only be required when there is a change in operations or conditions that would effect employee exposures.

SOURCE LETTER

DEC 24, 1986

MEMORANDUM

SUBJECT: 29 CFR 1926.58(f) - Clarification Request

Attached is a request for clarification of 29 CFR 1926.58(f) concerning monitoring provisions of the asbestos standard for construction. Due to the significance of the response, the request is being transmitted to you for your consideration.

Please respond to this office. You should contact Mr. J if there are any questions.

Attachment

December 18, 1986

MEMORANDUM

SUBJECT: Request for Interpretation Concerning 1926.58(f) Exposure Monitoring

In reviewing employers' monitoring requirements as delineated in 1926.58(f), there appears to be a "gray area" in which any requirements for additional monitoring are not clear. According to (f)(2)(i), the employer is required to conduct representative initial monitoring to determine employees' exposure to airborne asbestos (unless objective and/or historical monitoring data is utilized to demonstrate representative exposures are below the action level, AL). If the results of the initial monitoring reliably show that exposures are below the AL, the employer may terminate monitoring per (f)(4). If these data demonstrate levels that exceed or may exceed the PEL (0.2 f/cc) - i.e., the area meets the definition of a "regulated area" - the employer shall conduct daily monitoring (unless supplied air respirators are used) per (f)(3). These situations appear to be clearly defined and addressed.

The problem area, however, is the situation where the employer's initial monitoring demonstrates that employee's exposures are at or above the AL but less than the PEL. Section (f)(4) implies that further (e.g. periodic) monitoring is to be conducted unless levels are below 0.1 f/cc (8-hr. TWA) it is, therefore, requested that a clarification on this issue be provided, specifically: what is an employer's monitoring obligation when initial exposure monitoring indicates employees' exposures are between the AL and the PEL?

RECORD ID

3036

STANDARD NUMBER
INFORMATION DATE

1926.58(f)(2)(i); 1926.58(f)(2)(ii)
900207

ABSTRACT

This interpretation letter responds to a request from Mr. WDA, Resilient Floor Covering Institute, for exemption from the initial monitoring provision of OSHA's asbestos standard, 1926.58(f)(2)(i) when employees remove resilient floor tile. Claims for an exemption from initial monitoring requirements are evaluated by the compliance officer on a case by case basis. Sampling results may be considered historic data if they are representative of prevailing work conditions and work practices and if the air monitoring was conducted and analyzed appropriately. Contractors may be responsible for initial monitoring during preparation of sub-flooring subsequent to floor covering removal.

INTERPRETATION

29 CFR 1926.58(f)(2)(i); 1926.58(f)(2)(ii)

FEB 7, 1990

This is in response to your letter of January 26, regarding your request for exemption from the initial monitoring provision in the Occupational Safety and Health Administration's (OSHA) asbestos standard, 29 CFR 1926.58(f)(2)(i).

Along with your letter, you submitted a summary of a study by (Company) for OSHA's consideration and confirmation that this study constitutes historical data for the determination of employee exposure to asbestos when removing resilient floor tile, in accordance with the industry's recommended work practices that were the basis for the study.

As communicated to you during our previous meetings, your data can be considered as historical data, when they are representative of your prevailing work conditions and work practices. OSHA is not in a position to validate your data or attest to the effectiveness of your recommended work practices. The local OSHA Area Office would evaluate the claim of exemption from initial monitoring on a case by case basis, when the compliance officer determines that the (Company) sampling results represent the actual work conditions and that the recommended work practices are strictly followed.

We appreciate your efforts in gathering the data and would suggest that you provide your employees or contractors these data along with your recommended work practices for use as historical data to claim exemption from the initial monitoring requirement. However, if data from other sources including OSHA's field data show that these results are not reproducible, OSHA reserves the right to notify the Resilient Floor Covering Institute and other relevant parties that an exemption based on ENVIRON study would not be possible.

Your data covered the period of asbestos tile removal and floor clean-up but did not extend to initial preparations, installation of new resilient floor covering not containing asbestos or other work activities subsequent to the removal itself. Therefore, the contractors may still be responsible for initial monitoring during activities subsequent to the removal that may subject employees to asbestos exposure.

Please note that the asbestos standard is subject to change and that future changes of the standard may affect the provision for exemption from initial air monitoring.

February 6, 1990

We are forwarding to you a copy of the final letter sent by OSHA to Mr. WDA of Company A dated October 27, 1989.

In addition, we are forwarding a copy of the letter received by me today. On it I have marked the differences between this letter and that of Mr. K. The three deletions and one change of wording were made in an earlier draft and, as you can see, were not contained in the final letter.

The changes are as follows:

1. Paragraph 2: delete "previously submitted to OSHA as objective data..."
2. Paragraph 3: delete "and if the air monitoring was conducted and analyzed appropriately in accordance to OSHA's Reference Method."
3. Paragraph 5.: This should read, as it does in Mr. K's letter, as follows:

Your data covered the period of asbestos tile removal and floor clean-up but did not extend to initial preparations, installation of new resilient floor covering not containing asbestos or other work activities subsequent to the removal itself. Therefore, the contractors may still be responsible for initial monitoring during activities subsequent to the removal that may subject employees to asbestos exposure.

4. Paragraph 6: delete "It should be noted that the employers/contractors must still satisfy the standard's requirement for periodic monitoring, 29 CFR 1926.58(f)(3)."

These changes would bring our letter into conformity with the final letter from OSHA to Mr. W.

We truly appreciate your great help in working with us on obtaining our copy of this very important letter. Anything that you can do to see that this is sent by FAX to us today would be "above and beyond" so that I would have this for our Board of Directors meeting tomorrow in (State).

SOURCE LETTERS

January 26, 1990

Re: Historical Data Letter Regarding Floor Tile Removal

As we discussed, the Resilient Floor Covering Institute ("RFCI") hereby requests that OSHA issue to RFCI, as addressee, the same letter sent to Mr. WDA of Company A, dated October 27, 1989, regarding our request that OSHA consider the ENVIRON report as historical data. As you know, Company A and RFCI jointly requested this determination to support an exemption from initial monitoring requirements under the asbestos standard for floor tile removals using the recommended work practices. Although we have orally requested in past, through our consultant Mr. GW, that OSHA issue this letter to RFCI, you asked that we submit this request in writing which we do hereby.

You informed us that OSHA would be able to issue the October 27, 1989 letter to RFCI, as addressee, by February 5, 1990. I would greatly appreciate receiving the letter by that date so I can distribute it during an RFCI Board of Directors meeting scheduled for that week.

OCT 27, 1989

This is in response to your letter of April 3, regarding your request for exemption from the initial monitoring provision in the Occupational Safety and Health Administration's (OSHA) asbestos standard, 29 CFR 1926.58(f)(2)(i).

Along with your letter, you submitted a summary of a study by ENVIRON, previously submitted to OSHA as objective data, for OSHA's consideration and confirmation that this study constitutes historical data for the determination of employee exposure to asbestos when removing resilient floor tile, in accordance with the industry's recommended work practices that were the basis for the study.

As communicated to you during our previous meetings, your data can be considered as historical data, when they are representative of your prevailing work conditions and work practices and if the air monitoring was conducted and analyzed appropriately in accordance to OSHA's Reference Method. OSHA is not in a position to validate your data or attest to the effectiveness of your recommended work practices. The local OSHA Area Office would evaluate the claim of exemption from initial monitoring on a case by case basis, when the compliance officer determines that the ENVIRON sampling results represent the actual work conditions and that the recommended work practices are strictly followed.

We appreciate your efforts in gathering the data and would suggest that you provide your employees or contractors these data along with your recommended work practices for use as historical data to claim exemption from the initial monitoring requirement. However, if data from other sources including OSHA's field data show that these results are not reproducible, OSHA reserves the right to notify the Resilient Floor Covering Institute and other relevant parties that an exemption based on ENVIRON study would not be possible.

Your data covered the period of asbestos tile removal and floor clean-up but did not extend to initial preparations, installation of new resilient floor covering not containing asbestos or other work activities subsequent to the removal itself. Therefore, the contractors may still be responsible for initial monitoring during activities subsequent to the removal that may subject employees to asbestos exposure.

Please note that the asbestos standard is subject to change and that future changes of the standard may affect the provision for exemption from initial air monitoring.

RECORD ID

3037

STANDARD NUMBER
INFORMATION DATE

1926.58(f)(2)(iii); 1926.58(f)(2)(ii)
891204

ABSTRACT

This memorandum to Regional Administrators concerning Vinyl Asbestos Floor Tile Removal, advises that a study conducted by Company X can be considered historical data to be used in requests for exemption from the initial monitoring provision of 29 CFR 1926.58(f)(2)(i). Area Office Compliance Officers are instructed to ensure that work practices recommended by Company Y and RFCI are being strictly followed when they consider granting an exemption, and that OSHA field data confirm Company X's sample results. Employers may still be responsible for initial monitoring during activities subsequent to tile removal.

INTERPRETATION

29 CFR 1926.58(f)(2)(iii); 1926.58(f)(2)(ii)

DEC 4, 1989

MEMORANDUM

SUBJECT: Vinyl Asbestos Floor Tile Removal - Historical Data

Enclosed is a copy of a letter to Mr. W of Company A Industries dated October 27, informing him and the representatives of the Resilient Floor Covering Institute (RFCI) that their data, collected by Company X Corporation, can be considered historical data to be used in their request for exemption from the initial monitoring provision, 29 CFR 1926.58(f)(2)(i).

The Company X study analyzed asbestos fiber exposures to floor mechanics and supervisory personnel during the floor tile removal conducted pursuant to work practices recommended by the Company Y and RFCI. The study reported that based on a total of 21 exposures measured according to procedures specified by OSHA, the average TWA is approximately 0.031 f/cc. The report further stated that, with 95% confidence, the excursion limit also would not be exceeded. The data covered the period of asbestos tile removal and floor clean-up but did not extend to initial preparations, installation of new resilient floor covering not containing asbestos or other work activities subsequent to the removal itself. Therefore, the employer may still be responsible for initial monitoring during activities subsequent to the removal that may subject employees to asbestos exposure.

We are enclosing for your distribution to the Area Offices copies of the "Recommended Work Practices for Removal of Resilient Floor Coverings" and "Recommended Work Procedures for Resilient Floor Coverings" by Company Y and RFCI, respectively.

In considering granting exemption from initial monitoring for vinyl asbestos tile (ONLY) removal, the compliance officer shall ensure that the recommended work practices are strictly followed and that OSHA field data confirm the Company X sample results in demonstrating exposure levels below the action level of 0.1 f/cc as well as the 30-minute excursion limit of 1 f/cc.

In cases where employers followed the recommended work practice but OSHA sampling results exceed the Company X data, please notify Ms L of the Office of Health Compliance Assistance, so that we can take appropriate actions.

Attachments

Attachment 1: Recommended Work Procedures for Resilient Floor Coverings, issued by Resilient Floor Covering Institute.

Attachment 2: Company (Y) Tip Sheet - Recommended Work Practices for Removal of Resilient Floor Coverings

SOURCE LETTER

OCT 27, 1989

This is in response to your letter of January 26, regarding your request for exemption from the initial monitoring provision in the Occupational Safety and Health Administration's (OSHA) asbestos standard, 29 CFR 1926.58(f)(2)(i).

Along with your letter, you submitted a summary of a study by Company X for OSHA's consideration and confirmation that this study constitutes historical data for the determination of employee exposure to asbestos when removing resilient floor tile, in accordance with the industry's recommended work practices that were the basis for the study.

As communicated to you during our previous meetings, your data can be considered as historical data, when they are representative of your prevailing work conditions and work practices. OSHA is not in a position to validate your data or attest to the effectiveness of your recommended work practices. The local OSHA Area Office would evaluate the claim of exemption from initial monitoring on a case by case basis, when the compliance officer determines that the Company X sampling results represent the actual work conditions and that the recommended work practices are strictly followed.

We appreciate your efforts in gathering the data and would suggest that you provide your employees or contractors these data along with your recommended work practices for use as historical data to claim exemption from the initial monitoring requirement. However, if data from other sources including OSHA's field data show that these results are not reproducible, OSHA reserves the right to notify the Resilient Floor Covering Institute and other relevant parties that an exemption based on Company X study would not be possible.

Your data covered the period of asbestos tile removal and floor clean-up but did not extend to initial preparations, installation of new resilient floor covering not containing asbestos or other work activities subsequent to the removal itself. Therefore, the contractors may still be responsible for initial monitoring during activities subsequent to the removal that may subject employees to asbestos exposure.

Please note that the asbestos standard is subject to change and that future changes of the standard may affect the provision for exemption from initial air monitoring.

RECORD ID 1694

STANDARD NUMBER 1926.58(f)(2)(iii); 1926.58(f)(2)(ii)
INFORMATION DATE 871123

ABSTRACT This interpretation deals with the standards applicable to the removal of sheet vinyl and vinyl floor tile containing asbestos. An interpretation is given for the criteria of collecting and evaluating objective monitoring data.

INTERPRETATION 29 CFR 1926.58(f)(2)(iii); 1926.58(f)(2)(ii)

NOV 23, 1987

This is in response to your letter of November 4, regarding the Occupational Safety and Health Administration's (OSHA) standard for Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite for the construction industry, 29 CFR 1926.58. Specifically, you are requesting a determination as to whether or not data from studies conducted by SRI, Inc., and Dunnigan and LeBel concerning removal of sheet vinyl, and vinyl floor tile, can be used as objective data pursuant to 29 CFR 1926.58(f)(2)(ii). Paragraph 29 CFR 1926.58(f)(2)(ii) states:

- (ii) The employer may demonstrate that employee exposures are below the action level by means of objective data demonstrating that the product or material containing asbestos, tremolite, anthophyllite, actinolite, or a combination of these minerals cannot release airborne fibers in concentrations exceeding the action level under those work conditions having the greatest potential for releasing asbestos, tremolite, anthophyllite, or actinolite.

It is apparent from the data submitted to the Docket Office that there are certain work conditions involving the removal of sheet vinyl, and vinyl asbestos floor tiles where the worker's exposure to airborne concentrations of asbestos fibers could exceed the 0.1 fiber/cubic centimeter (f/cc) action level. Consequently, the studies do not meet the requirements for use as objective data.

However, the data contained in the studies may be useful as historical data pursuant to 29 CFR 1926.58(f)(2)(iii), which states:

- (iii) Where the employer has monitored each asbestos, tremolite, anthophyllite, or actinolite job, and the data were obtained during work operations conducted under workplace conditions closely resembling the processes type of material, control methods, work practices, and environmental conditions used and prevailing in the employer's current operations, the employer may rely on such earlier monitoring results to satisfy the requirements of paragraph (f)(2)(i) of this section.

In order to use such data as historical data, the employer must demonstrate that:

- (1) The data upon which judgments are based are scientifically sound and collected using methods that are sufficiently accurate and precise.
- (2) The processes and work practices in use when the historical data were obtained are essentially the same as those to be used during the job for which initial monitoring will not be performed.
- (3) The characteristics of the asbestos containing material being handled when the historical data were obtained are the same as those on the job for which initial monitoring will not be performed.
- (4) Environmental conditions prevailing when the historical data were obtained are the same as for the job for which initial monitoring will not be performed.

Where the data in the studies demonstrates that the employees' exposures would be less than the action level for the particular jobs being performed, and the four requirements above are satisfied, the employer may use the studies in lieu of performing the initial monitoring required by 29 CFR 1926.58(f)(2)(i).

SOURCE LETTER

November 4, 1987

RE: Occupational Safety and Health Administration (OSHA); Asbestos Occupational Exposure Standard Construction Industry (29 CFR 1926.53)

Company A Industries, Inc. is primarily a manufacturer and marketer of interior furnishings including resilient floor coverings (e.g., vinyl composition floor tile and sheet vinyl products). While our current floor coverings do not contain asbestos, that raw material was formerly used in certain of these products and those applications are the subject of this correspondence.

Company A and other members of the resilient floor covering manufacturing industry have supported a specific set of work practices which we urge the professional floor installation trade and lay persons to follow in connection with the removal of an existing resilient floor covering structure which may or is assumed to contain asbestos.

These work practices (hereinafter "Recommended Work Practices") were tested extensively by the SRI, Inc., as a project sponsored by the Resilient Floor Covering Institute, Inc.* The SRI, Inc. studies were submitted to OSHA for its consideration in connection with asbestos-related rulemaking.

We are seeking a finding or determination from OSHA that the SRI, Inc., and the Dunnigan and LeBel data will support a general employer exemption from initial exposure monitoring (29 CFR 1926.58 (f)(2)(ii)) when the Recommended Work Practices are followed in connection with the removal of resilient floor covering which contains or is assumed to contain asbestos. This aspect of the application of, OSHA's Asbestos Occupational Safety and Health Standard for the Construction Industry (29 CFR 1926.58) to the resilient floor covering trades and others whose construction requirements require the removal of existing (in-place) resilient floor covering which may contain asbestos requires clarification.

It is our belief that the professional floor covering trade and others who follow the Recommended Work Practices should be entitled to the exemption from the initial monitoring of employee exposure as cited above, by reference to data that OSHA previously used in its Rulemaking (SRI, Inc. and Dunnigan and LeBel). We believe that the data produced in the SRI, Inc., and Dunnigan and LeBel studies of the Recommended Work Practices, which OSHA used as a basis to declare the feasibility of compliance with the 0.2 f/cc PEL during removal, ("Thus, OSHA determined it is feasible to comply with the 0.2 f/cc PEL during the removal and installation of vinyl/asbestos flooring." June 20, 1986, 51 FR 22663) will also support a finding that the Action level (0.1 f/cc) will not be exceeded when those Recommended Work Practices are followed in the removal of existing resilient floor coverings. This application of the data meets OSHA's concept of employer use of manufacturers data as a basis for an exemption for the need to conduct initial monitoring of construction activities ("OSHA believes that employers may be able to obtain data from the manufacturers of asbestos-containing products that demonstrate that these materials will not release asbestos at levels that exceed the action level, even under worst case conditions." June 20, 1986, 51 FR 22713).

As your staff is aware from our previous contacts and correspondence, the former manufacturers of asbestos-containing resilient floor covering products continue to emphasize in our product literature and in specialized publications addressed to the floor covering trade and others who may occasionally engage in the removal process, the need to follow the Recommended Work Practices. It is our position that by following those work practices, the actual exposures if any, should be presumed to be below the action level. Our industry is anxious to continue its past efforts to increase the floor trades and occasional users knowledge of work practices that comply with OSHA's philosophy in enforcing the Asbestos Occupational Standard for the construction industry. To accomplish this objective, we believe that it is essential for OSHA to issue a determination that implementation of the recommended work practices will limit asbestos

* Company A is not a member of the Resilient Floor Covering Institute, Inc. The Institute maintains offices at 966 Hungerford Drive, Suite 12-B, Rockville, MD 20850.

exposures during floor covering removal to below the action level of 0.1 f/cc. Such a determination would make clear that this objective data can be utilized by employers in order to dispense with the need for initial exposure monitoring.

If the finding or determination requested is not possible, we would ask that OSHA's headquarters include in the guidance that it provides to its field compliance officers, a cite or recognition of the data discussed above as qualifying objective data for employers to declare for the exemption from initial exposure monitoring.

As a matter of additional information, the basic Recommended Work Practices have been revised in one material aspect which does not require their re-testing as its application will only lower the levels achieved under the previous practice. This change involves the designation of HEPA vacuums as, the appropriate device when removal is conducted.

If the desired finding or determination as requested cannot be provided, we request that OSHA immediately initiate rulemaking or through administrative declaration define a procedure which would avoid inconsistent field interpretations or applications of objective data.

RECORD ID 1767

STANDARD NUMBER 1926.58(f)(4)(i)
INFORMATION DATE 870820

ABSTRACT In the context of 1926.58(f)(4), "statistically reliable measurements" means application of accepted statistical procedures to the daily monitoring data in order to demonstrate that employee exposures are not likely to be equal to or greater than the action level. If the periodic air monitoring shows statistically reliable measurements below the action level, then the employer may discontinue daily air monitoring. The number of air samples required to show that employee exposures will not exceed the action level is dependent on the variability of the data; and, therefore, must be determined on a case by case basis.

INTERPRETATION 29 CFR 1926.58(f)(4)(i)

AUG 20, 1987

This is in response to your recent letter regarding the Occupational Safety and Health Administration's (OSHA) asbestos standard for the construction industry, 29 CFR 1926.58. We apologize for the delay in responding to your inquiry.

Your first question concerns the definition of the term "statistically reliable measurements" as used in paragraph 29 CFR 1926.58(f)(4). Paragraph 29 CFR 1926.58(f)(4) states:

- (4) Termination of monitoring. If the periodic monitoring required by paragraph (f)(3) of this section reveals that employee exposures, as indicated by statistically reliable measurements, are below the action level, the employer may discontinue monitoring for those employees whose exposures are represented by such monitoring

In the context of this paragraph "statistically reliable measurements" means that accepted statistical procedures must be applied to the daily monitoring data in order to demonstrate that employee exposures are not likely to be equal to or greater than the action level, and thus, that the daily monitoring can be suspended.

Your second question is, whether or not three days of sampling is enough to demonstrate that employee exposures will not exceed the action level. A standard number of samples required to show that employee exposures will not exceed the action level cannot be established.

The number of samples required is dependent on the variability of the data, and therefore must be determined on a case by case basis.

RECORD ID 2444

STANDARD NUMBER 1926.58(h)(2)(i); 1926.58(h)(2)(iii); 1910.1001(g)(2)(ii);
1910.1001(g)(2)(ii)(A)
INFORMATION DATE 860826

ABSTRACT This interpretation letter addresses the employer's responsibility for providing respiratory protection and the options employee's have in choosing respiratory protection.

INTERPRETATION 29 CFR 1926.58(h)(2)(i); 1926.58(h)(2)(iii); 1910.1001(g)(2)(ii);
1910.1001(g)(2)(ii)(A)

AUG 26, 1986

This is in response to your letter of July 24, referencing a respirator provision 29 CFR 1926.58(h)(2)(iii) of the new standard for exposure to asbestos, tremolite, anthophyllite, and actinolite in the construction industry. Specifically, 29 CFR 1926.58(h)(2)(iii) states:

"The employer shall provide a powered, air-purifying respirator in lieu of any negative-pressure respirator specified in Table D-4 whenever:

- (A) An employee chooses to use this type of respirator; and
- (B) This respirator will provide adequate protection to the employee."

You inquired as to whether the words "shall provide," imply that the respirator must be provided at no cost to the employee. In addition, you wanted to know whether, when a powered, air purifying respirator is provided to the employee, the employer could request a deposit to ensure that the respirator is returned when the employee finds other employment.

The standard stipulates that respirators required for protection from exposure to asbestos fibers shall be provided at no cost to the employee (1926.58(h)(2)(i)). Due to the unreliability and physiological distress associated with negative pressure respirators, OSHA has required employers to provide, powered, air purifying (positive pressure) respirators, at no cost, to those employees who request one, so long as it will provide adequate protection at the level of protection required.

Powered, air-purifying respirators, operated in positive-pressure mode, provide greater protection to individuals (especially those who cannot obtain a good face fit on a negative pressure respirator) and will provide greater comfort when a respirator must be worn for long periods of time. OSHA believes employees will have a greater incentive to wear respirators if discomfort is minimized. As with any OSHA required safety equipment, a "deposit" cannot be requested by an employer to ensure that a PAPR is returned at the end of employment. This would reduce the incentive of an employee to request and use this type of respiratory protection.

SOURCE LETTER

July 24, 1986

Recently, a question was raised at our institute regarding an interpretation of a specific section of the New OSHA regulation, 29 CFR 1926.58. I spoke with Mr. I of the OSHA Standards Office, and he suggested that I write directly to you.

The specific section in question is on page 22758, (h) "Respiratory Protection", (2) "Respirator Selection", (iii) "The employer shall provide a powered, air-purifying respirator in lieu of any negative-pressure respirator specified in Table D-4 whenever:

- (A) An employee chooses to use this type of respirator; and

(B) This respirator will provide adequate protection to the employee."

The question is this: If an employer provides (at no cost to the employee), the minimum required respirator protection (in this case a half-mask, air-purifying respirator with a HEPA filter) to an employee, and the employee permitted to require payment for the requested respirator?

Do the words "shall provide" imply that the respirator then must be "provided" to the employee "at no cost"? Another question asked was by a contractor, suggesting the following:

The respirators cost in the area of \$450 to \$500 each. If I "provide at no cost to the employee" one unit, am I permitted to request a "deposit" to insure the respirators return? The deposit would be returned if and when the employee finds other employment.

An official interpretation on this issue would be greatly appreciated.

RECORD ID 4068

STANDARD NUMBER 1926.58(h)(4)(ii); 1926.103; 1910.134(e)(5); 1910.1001(g)(4)(ii)
INFORMATION DATE 901209

ABSTRACT OSHA regulations require neither quantitative nor qualitative fit testing of full facepiece positive air pressure respirator (PAPR)'s or supplied-air respirators that will be used for egressing from an area containing airborne asbestos in the event of respirator failure. Assuring and documenting proper fit testing would increase employee protection from asbestos and is commendable, but the asbestos standard does not address the use of PAPR's or supplied-air respirators in a negative pressure mode for egress upon failure of the positive pressure mode. OSHA has concluded that it cannot interpret its regulations to require employers voluntarily using such respirators for such purpose to fit test the respirators in their negative pressure mode.

INTERPRETATION 29 CFR 1926.58(h)(4)(ii); 1926.103; 1910.134(e)(5); 1910.1001(g)(4)(ii)

DEC 9, 1990

Thank you for your letter of October 18, concerning the fit testing of respirators. You enclosed for our comments a copy of some correspondence you received from a state asbestos control division. You also asked if a quantitative fit test must be performed on a full facepiece positive air pressure respirator (PAPR) or supplied-air respirator (SAR) that will be used as a negative pressure respirator for egress in the event of battery or supplied-air system failure.

The correspondence you received from the state seems to make two basic contentions: (1) Qualitative fit testing of full facepiece respirators is permitted under 29 CFR 1926.58(h)(4) of the asbestos standard and (2) a PAPR or a supplied-air respirator does not become a negative pressure respirator when its battery or supplied-air system fails. Our comments are:

- (1) Qualitative fit testing of full facepiece negative pressure respirators is permitted provided they will be used only in environments where the airborne asbestos concentration does not exceed 10 times either of the asbestos permissible exposure limits.
- (2) In OSHA's view, a PAPR or a supplied-air respirator with air-purifying filters becomes a negative pressure respirator when its battery or supplied-air system fails. However, for use other than egress when the power fails, OSHA would only allow its use in the negative pressure mode if it has been approved as a negative pressure respirator by NIOSH. NIOSH currently has not approved any of these respirators for use in the negative pressure mode.

In answer to your specific question, we do not interpret any Occupational Safety and Health Administration (OSHA) regulations to require either quantitative or a qualitative fit testing of full facepiece PAPR's or supplied-air respirators that will be used for egressing from an area containing airborne asbestos in the event of respirators failure. Such fit testing would increase employee protection from asbestos and hence is commendable, but the asbestos standard does not address the use of PAPR's or supplied-air respirators in a negative pressure mode for egress upon failure of the positive pressure mode. Since OSHA has no regulations requiring employers to use PAPR's or supplied-air respirators that revert to the negative pressure mode in order to provide employees some protection while egressing from the area should the positive pressure mode fail, OSHA has concluded that it cannot interpret its regulations to require employers voluntarily using such respirators for such purpose to fit test the respirators in their negative pressure mode.

RECORD ID

3376

STANDARD NUMBER
INFORMATION DATE

1926.58(f)(3); 1926.58(m)(1)(i); 1910.1001(l)(1)(i)
900523

ABSTRACT

This interpretation letter discusses the requirements for medical surveillance under 29 CFR 1926.58(m)(1)(i). There are two separate requirements for medical surveillance under the standard. One requirement is triggered when employees are exposed at or above the action level and/or excursion limit for 30 or more days per year as measured with 8 hour time-weighted average air monitoring. At this length and level of exposure, medical surveillance is required irrespective of the type of respirator used. Medical surveillance is also mandated when employees are required to wear negative pressure respirators. If an employee exposure exceeds either the 8 hour time-weighted average limit or the excursion limit, and negative pressure respirators are worn; medical surveillance is required. One exposure is sufficient to activate this requirement.

INTERPRETATION

29 CFR 1926.58(f)(3); 1926.58(m)(1)(i); 1910.1001(l)(1)(i)

MAY 23, 1990

This is in response to your letter of March 12, to the Occupational Safety and Health Administration's (OSHA) Regional office in (State). Your letter was forwarded to us for response to your request for interpretation of the requirements for medical surveillance under the OSHA Asbestos Standard for construction, 29 CFR 1926.58, paragraph (m)(1)(i).

There are two separate requirements for medical surveillance under the standard. One requirement for medical surveillance is triggered when employees are exposed at or above the action level and/or excursion limit for 30 or more days per year. This would include exposures above the 8 hour time-weighted average limit. At this length and level of exposure, medical surveillance is required irrespective of the type of respirator used.

Medical surveillance is also mandated when employees are required to wear negative pressure respirators. This requirement is not dependent on the length of exposure. If employee exposure exceeds either the 8 hour time-weighted average limit or the excursion limit, and negative pressure respirators are worn, medical surveillance is required. One exposure is sufficient to activate this requirement.

In your letter you assume that negative pressure respirators are required to be used when exposures exceed or can reasonably be expected to exceed the permissible exposure limits (8 hour time-weighted average limit and/or excursion limit). Your interpretation is not completely accurate. Although respirators are required, they do not have to be negative-pressure respirators. Employers may supply positive-pressure respirators, and thus the medical surveillance requirement for negative-pressure respirators would not be applicable (unless exposure occurs for 30 days or more per year).

The intent of the asbestos regulations is to require employers to implement proper engineering and work practice controls to minimize employee exposures so that the use of respiratory protection alone would not be necessary.

March 22, 1990

MEMORANDUM

SUBJECT: Request for Interpretation/Clarification of 29 CFR 1926.58(m)(1)(i)

The attached request dated March 12, 1990, from Mr. J. Occupational Health and Hygiene Corporation of America, is forwarded for your review and clarification of subject standard.

The standard seems to indicate that a medical surveillance program is instituted by the exposure of an employee to levels above the excursion limit for at least 30 days out of the year. It also states that it 15

instituted by the requirement of an employee to wear a negative pressure respirator. Since such a respirator is required by a single instance of an employee being exposed to a level above the excursion limit, there seems to be a conflict within this section of the standard.

March 22, 1990

This will acknowledge receipt of your letter of March 12, 1990.

Your request for an interpretation/clarification concerning 29 CFR 1926.58 (m)(1)(i) has been referred to our National Office in Washington, D.C. for response.

SOURCE LETTERS

March 12, 1990

On July 7, 1989, you sent us a letter in response to several questions we had presented which needed clarification regarding OSHA's asbestos regulations. I have enclosed copies of both letters for your reference.

After having reviewed your reply to one of these questions, we are still uncertain as to the correct interpretation of the regulations. Therefore, I would appreciate a response to the following inquiry, which is our original question #1 re-stated for clarification:

1. Re: 1926.58(m)(1)(i)

Medical Surveillance, General, Employees Covered:

One of the two criteria must be met to be included in medical surveillance. These criteria are:

- A. Engaged in work involving levels of asbestos at or above the action level and/or excursion limit for 30 or more days per year, or
- B. Required by this section to wear negative pressure respirators.

With regard to the above, we interpret this to mean that medical surveillance is required when the following conditions are met:

- I. When engaged in work involving levels of asbestos at or above the action level for 30 or more days per year.
- II. When engaged in work involving levels of asbestos at or above the excursion limit for 30 or more days per year.
- III. When required to wear negative pressure respirators.

Since negative pressure respirators are required to be used when exposures exceed or can reasonably be expected to exceed the permissible exposure limits (8 hour TWA and/or excursion limit), then the medical surveillance requirement applies when exposures exceed the permissible exposure limits. And the permissible exposure limits only have to be exceeded on one occasion to activate the medical surveillance requirements.

Our questions are as follows:

Question #1: As stated above, is condition "III" a correct interpretation of the regulations and OSHA's enforcement policy?

If not, please provide the correct interpretation.

Question #2: If condition "III" above is correct, then when exposures exceed the excursion limit, does it take 30 or more days at or above the excursion limit (as stated in condition "II") or one occasion (as stated in condition "III") to activate the medical surveillance requirements?

July 7, 1989

This is in response to your letter dated June 28, 1989. The questions posed in your inquiry are restated below, with the answer immediately following each question.

1. Re: 1926.58(m)(1)(i)

Medical Surveillance, General, Employees Covered:

One of two criteria must be met to be included in medical surveillance. These criteria are:

- A. Engaged in work involving levels of asbestos at or above the action level and/or excursion limit for 30 or more days per years or;
- B. Required by this section to wear negative pressure respirators.

With regard to "B" above, we interpret this to mean employees with asbestos exposures above the permissible exposure limits (TWA limit or excursion limit).

Your interpretation is correct.

Question #1: Is medical surveillance required for employees exposed above the permissible exposure limits after one event (one TWA or excursion above the limits) or after 30 or more days per calendar year above the limits?

After one event, as defined in your question.

Question #2: If exposures are maintained below the action level, is medical surveillance required?

2. Re: 1926.58(m)(2)(i)(c)

Medical Surveillance, Medical Examinations and Consultations, Frequency.

Item "C" of this paragraph reads, "and at least annually thereafter."

Question #3: How is item "C" interpreted? Does it mean that once an employee is covered by the medical surveillance provisions, the medical examination and consultations must be made available each and every year thereafter?

If a termination of exposure examination is given an employee, it is unnecessary to provide further examinations unless the employee is again exposed as defined under 29 CFR 1926.58(m)(1)(i).

3. Re: 1926.58(f)(3)

OSHA regulations do not require periodic monitoring within regulated areas if all employees within a regulated area are equipped with supplied-air respirators operated in the positive-pressure mode.

Question #4: If all employees within regulated areas are equipped with supplied-air respirators operated in the positive-pressure mode, can the employee dispense with the annual medical surveillance required by 1926.58(m)(1) and 1926.58(m)(2)?

No, it is still necessary to provide annual medical surveillance.

4. Re: 1926.58(h)(2)

In table D-4, respirator selection is based on airborne concentration of asbestos as compared to the permissible exposure limit (PEL), specifically the TWA limit.

Question #5: Since OSHA has adopted a permissible exposure excursion limit, how is table D-4 interpreted and respirators selected for exposures which exceed the excursion limit?

Respirators can be selected from table D-4 by protection factor; i.e., 10 x excursion limit for a half-mask air-purifying respirator with high efficiency filters. Fiber-count ceilings for TWA should be ignored.

June 28, 1989

I am writing to you on behalf of one of our clients, a major corporation in the (City) area. We have been assisting them with the management and control of asbestos exposures in the workplace.

In reviewing OSHA's asbestos regulations, specifically 29 CFR 1926.58, several questions have been identified with regard to OSHA's interpretation of these regulations. These questions are:

1. Re: 1926.58 (m)(1)(i)

Medical Surveillance, General, Employees Covered:

One of two criteria must be met to be included in medical surveillance. These criteria are:

- A. Engaged in work involving levels of asbestos at or above the action level and/or excursion limit for 30 or more days per year, or
- B. Required by this section to wear negative pressure respirators.

With regard to "B" above, we interpret this to mean employees with asbestos exposures above the permissible exposure limits (TWA limit or excursion limit).

Question #1: Is medical surveillance required for employees exposed above the permissible exposure limits after one event (one TWA or excursion above the limits) or after 30 or more days per calendar year above the limits?

Question #2: If exposures are maintained below the action level, is medical surveillance required?

2. Re: 1926.58 (m)(2)(i)(c)

Medical Surveillance, Medical Examinations and Consultations, Frequency.

Item "C" of this paragraph reads "and at least annually thereafter."

Question #3: How is item "C" interpreted? Does it mean that once an employee is covered by the medical surveillance provisions, the medical examination and consultations must be made available each and every year thereafter?

3. Re: 1926.58 (f)(3)

OSHA regulations do not require periodic monitoring within regulated areas if all employees within a regulated area are equipped with supplied-air respirators operated in the positive-pressure mode.

Question #4: If all employees within regulated areas are equipped with supplied-air respirators operated in the positive-pressure mode, can the employer dispense with the annual medical surveillance required by 1926.58 (m)(1) and 1926.58 (m)(2)?

4. Re: 1926.58 (h)(2)

In table D-4, respirator selection is based on airborne concentration of asbestos as compared to the permissible exposure limit (TWA), specifically the TWA limit.

Question #5: Since OSHA has adopted a permissible exposure excursion limit, how is table D-4 interpreted and respirators selected for exposures which exceed the excursion limit?

RECORD ID**3816**

**STANDARD NUMBER
INFORMATION DATE****1926.58(m)(1)(i); (m)(2)(ii)(C); 1910.1001(l)(1)(ii)
900816**

ABSTRACT

This interpretation letter specifies that the physical examination required by 1926.58(m)(2) means a "hands-on" exam and not just a review and comment on various test and reports. The review and comment on the diagnostic results from the pulmonary function tests, the chest roentgenogram/ILO report, the blood pressure recording, and the OSHA medical questionnaire are also required.

INTERPRETATION**29 CFR 1926.58(m)(1)(i); (m)(2)(ii)(C); 1910.1001(l)(1)(ii)****AUG 16, 1990****MEMORANDUM :**

SUBJECT: Requirement for Physical Examination Pursuant to the Medical Surveillance Requirements of the Asbestos Construction Standard, 29 CFR 1926.58

This is in response to your memorandum of July 11, concerning the medical surveillance requirements of the construction asbestos standard 29 CFR 1926.58. We asked Dr. R, medical officer in the Directorate of Technical Support, to provide guidance in this area. Enclosed is a copy of his response; essentially a physical examination required by 29 CFR 1926.58 (m)(2) means a "hands-on" exam and not just a review and comment on various test and reports. If you require additional information on medical testing and review, please contact the Office of Occupational Medicine directly.

SOURCE LETTER**July 11, 1990****MEMORANDUM**

SUBJECT: Requirement for Physical Examination Pursuant to the Medical Surveillance Requirement of the Asbestos Construction Standard, 29 CFR 1926.58

Region VII recently received a request from an industrial health services company, to evaluate the adequacy of their medical testing protocol in relation to the medical surveillance requirements of the construction asbestos standard 29 CFR 1926.58.

While the company testing protocol appears to address most of the required areas under paragraph (m) of the Standard, the protocol is deficient in that there is no provision for a "hands-on" physical examination directed to the pulmonary and gastrointestinal system, (in addition to the pulmonary function tests and discretionary chest roentgenogram), as called for in Paragraph (m)(2)(ii)(C) of 29 CFR 1926.58. While the physician's role in this case is to only review and count on the diagnostic results from the pulmonary function tests, the chest roentgenogram/ILO report, the blood pressure recording, and the OSHA medical questionnaire, we believe that the standard, in requiring a "physical examination," intended for this examination to be a "hands-on" exam and not just a review and comment on various test results and reports.

RECORD ID 1723

STANDARD NUMBER 1926.58(m)(4)(ii); 1910.1001(l)(7)(ii)
INFORMATION DATE 870824

ABSTRACT The intent of 1926.58(m) is not to require duplicative medical examinations of written opinions for different substances an employee is exposed to on an ongoing basis. Thus, medical opinions required in 1926.58(m) may include information concerning an employee's occupational exposure to substances other than asbestos.

INTERPRETATION 29 CFR 1926.58(m)(4)(ii) · 1910.1001(l)(7)(ii)

AUG 24, 1987

This is in response to your inquiry requesting a clarification of paragraph (m)(4)(ii) of 29 CFR 1926.58 Asbestos, Tremolite, Anthophyllite, and Actinolite when employees may be exposed to a variety of hazardous substances. Please accept my apology for the delay in our response.

Paragraph (m)(4)(ii) states:

The employer shall instruct the physician not to reveal in the written opinion given to the employer specific findings or diagnosis unrelated to occupational exposure to asbestos, tremolite, anthophyllite, or actinolite.

The purpose of this paragraph is to protect worker confidentiality of findings or diagnosis unrelated to occupational exposure. It is not the intent to require duplicative medical examinations of written opinions for different substances an employee is exposed to on an ongoing basis. Thus, medical opinions required in 1926.58(m) may include information concerning an employee's occupational exposure to other substances in addition to asbestos.

SOURCE LETTER

January 8, 1986

(XX) Corporation is an environmental management company providing a comprehensive range of environmental services including decontamination and remedial services.

We would like to request clarification of paragraph (m)(4)(ii) Physician's Written Opinion of Section (m) Medical Surveillance of Standard 29 CFR 1926.58 Asbestos, Tremolite, Anthophyllite, and Actinolite.

Paragraph (m)(4)(ii) states:

The employer shall instruct the physician not to reveal in the written opinion given to the employer specific findings or diagnoses unrelated to occupational exposure to asbestos, tremolite, anthophyllite, or actinolite.

In performing the decontamination and remedial services, our employees are involved in handling a variety of hazardous substances on an ongoing basis. Examples of these hazardous substances include PCB's, dioxin, lead, chlorinated hydrocarbons, mineral acids, gasoline, jet fuel, asbestos, etc. In view of the potential for exposures to such substances, our employee medical examination program is very thorough so that any employee (or potential new hire) is not placed at increased risk because of some preexisting (or newly found) medical condition. Thus, it is important for us as an employer to have complete medical information on our employees before their assignment to any job with a potential for exposure to hazardous substances. For these reasons, we cannot segregate an "asbestos" medical examination from other examinations because our employees are not involved exclusively with asbestos exposures.

We believe the scenario outlined above is not unique to the (XX) Corporation, but would also be similar for many other employers with the potential for multiple hazardous substances exposures. Therefore, we are requesting OSHA to reexamine the wisdom of limiting the physician's response to the employer regarding the results of an individual employee's physical examination. Please advise me of your action in this matter.

RECORD ID 92022601

STANDARD NUMBER 1926.58 (b), Subpart T
INFORMATION DATE 19920226

ABSTRACT An interpretation letter clarifying the term "demolition". In the absence of an OSHA definition of demolition in 29CFR1926, Subpart T, standard definitions such as those listed in American National Standard Institute (ANSI) standards apply. Their definition of demolition includes partial dismantling and razing where structural members of the structure are not removed.

INTERPRETATION 29 CFR 1926.58 (b), Subpart T

February 26, 1992

This is in response to your November 19 memorandum requesting clarification of the term "demolition" as it relates to 29 CFR 1926, Subpart T. I apologize for the delay in this response.

As pointed out in your memorandum, the term "demolition" is not defined in Subpart T. The definition of demolition in 29 CFR 1926.58 applies only to construction where asbestos, tremolite, anthophyllite, or actinolite is present. It does not otherwise apply to Subpart T type operations.

In the absence of an OSHA definition of demolition, we rely on recommended standard definitions such as those listed in American National Standard Institute (ANSI) standards. The ANSI A10.6 committee which is responsible for safety requirements for demolition operations informed us that the committee intentionally included in their definition of demolition, partial dismantling and razing involving those activities where structural members of the structure are not removed. The ANSI A10.6-1990 standard defines "demolition" as dismantling, razing, or wrecking any fixed building or structure or any part thereof. Accordingly, Subpart T applies not only to dismantling, razing or wrecking activities, but to activities involving rehabilitation, repair, or remodeling including those where no removal of load supporting structural members takes place.

RECORD ID 93011501

STANDARD NUMBER 1926.58 (a), (p)(2), (g)(1), (e)(6)(iv), Appendix G; 1910.1001 (a)
INFORMATION DATE 19930115

ABSTRACT The General Industry Asbestos Standard, 29 CFR 1910.1001, applies to the protection of non-construction workers from airborne or disturbance of asbestos by deteriorating asbestos containing material (ACM). The Construction Industry Asbestos Standard, 29 CFR 1926.58, applies to employees engaged in renovation, removal, demolition or repair activities which involve asbestos. OSHA interprets the maintenance program recommendations contained in Appendix G as non-mandatory.

INTERPRETATION 29 CFR 1926.58 (a), (p)(2), (g)(1), (e)(6)(iv), Appendix G; 1910.1001 (a)

January 15, 1993

Dear Ms. V:

This is a full response to your letter of December 5, 1991, requesting clarification of the Occupational Safety and Health Administration's (OSHA) asbestos regulations. We regret the delay in providing this response.

With regard to your inquiry as to which standard applies to specific situations: The General Industry Asbestos Standard, 29 CFR 1910.1001, applies to the protection of non-construction workers from airborne asbestos by deteriorating asbestos containing material (ACM) or released as a result of disturbance by other workers during the performance of maintenance or construction activities or because of other sources (e.g. vibration, HVAC circulation). The Construction Industry Asbestos Standard, 29 CFR 1926.58, applies to the protection of employees engaged in construction work and exposed to asbestos containing materials.

The specific background of the regulations is that in June, 1986, OSHA published two final standards regulating worker exposure to asbestos. One standard, 29 CFR 1910.1001, was published under the general industry provisions and was intended to cover employee exposure in all industries covered by the Act. Coverage under this standard is not restricted only to those exposures which result from manufacturing, processing, or installing asbestos products but also applies to employee exposures to asbestos in the office setting, for example activities would be covered through the provisions contained in 29 CFR 1926.58.

29 CFR 1926.58 is the asbestos standard which covers construction activities such as alteration and/or repair, including painting and decorating. However, the standard is not, as some have thought, limited to those employers thought to be "construction" employers, such as those falling within standard Industrial Classification Groups 15, 16 and 17. Any employer is engaged in construction for purposes of 1926.58 if its employees are engaged in renovation, removal, demolition or repair activities which involve asbestos. Thus, it is the activity, rather than the primary business of the employer, which governs. Moreover, it is simply the engagement in a covered activity which triggers many of the requirements of the standard rather than any specified degree of employee exposure.

In addition, you requested a clarification of the scope and requirements of 1926.58, Appendix G. OSHA interprets the maintenance program recommendations contained in Appendix G as non-mandatory. The clear language of paragraph (p) describes Appendix G as "non-mandatory" and "informational," and the preamble states that Appendix G was included for the purposes of information and guidance. The provisions of the appendix are not substitutes for the mandatory requirements of paragraph (e)(6), which are intended to protect employees and bystanders during a large scale abatement job. For small-scale short-duration asbestos removal, demolition, and renovation operations, the employer is not required to

comply with paragraph (e)(6). The "methods of compliance" mandatory provisions in paragraph (g) of the standard allow the employer to choose among listed controls, such as work practice and engineering controls, to achieve compliance with the PELs. Please bear in mind that a maintenance program such as described in appendix G is not among the listed controls, and the enumerated controls in paragraph (g) are stated generally, without reference to Appendix G. In this regard, the employer may use Appendix G for further guidance concerning work practice and engineering controls to assure that exposure levels are below the Permissible Exposure Limit (PEL) during small-scale short-duration activities.

Therefore, employers covered by the asbestos construction standard are not allowed to implement a maintenance program as indicated in Appendix G as a way of avoiding the requirements of paragraph (e)(6). However, OSHA encourages all building and facility owners to put into place maintenance programs where asbestos containing materials may be present. In the recent proposal to revise its asbestos standards, OSHA has proposed to convert some portions of Appendix G to mandatory requirements (see 55 FR 29712, July 20, 1990). Although the maintenance program provisions were not proposed for mandatory status, participants in the rulemaking requested OSHA to make the determination. OSHA expects to make these determinations in the near future.

SOURCE LETTER

December 5, 1991

Dear S:

This is to request certain information pertaining to OSHA's General Industry and Construction Industry standards for asbestos.

First, I would like to know which of and how these standards would apply to office employees (or other nonconstruction workers) who are, or may reasonably be expected to be, exposed to airborne concentrations of asbestos fibers released as a result of either the deterioration of asbestos-containing materials (ACM) or the disturbance of ACM by other workers (e.g., custodial or maintenance personnel) during the performance of construction activities or through other sources (e.g., vibration, HVAC circulation).

Second, I would like clarification on the scope and requirements of certain provisions of Appendix G to the asbestos standard for the construction industry. Appendix G, which is mandatory if construction industry employers wish to be exempted from the requirements of paragraphs (e)(6), (j)(1)(i) and (j)(2)(i) of the construction standard, requires under the heading of "Maintenance", that such employers initiate an asbestos maintenance program in all facilities that contain ACM. The program, according to the appendix, should include, among other elements, an inventory of all ACM in the facility and periodic examination of the condition of all ACM.

These provisions of Appendix G suggest to me that if employers engaged in construction work wish to avail themselves of the standard's exemptions for small-scale, short-duration asbestos renovation and maintenance activities, they must also inspect their facilities for the presence, location and condition of ACM. Apparently, the inspection must precede the conduct of SSSD activities and is not limited to the area where such activities are being conducted, but rather must cover the entire facility.

Lastly, I would appreciate any available statistical or anecdotal data on the frequency since the implementation of the asbestos construction industry standard, of the issuance of OSHA citations for violations of the above-mentioned Maintenance provisions of Appendix G.

Your prompt response to this request for information on the application of OSHA's asbestos standards would be greatly appreciated. If you have any questions, please feel free to call me.

RECORD ID

2947

**STANDARD NUMBER
INFORMATION DATE**

1926.59(c); (d)(1); (e)(2); (g)(1); 1926.58(k); 1910.1001(j)(3)
891226

ABSTRACT

Employers may be encouraged to obtain or develop a "generic" MSDS for "asbestos" for use in their overall hazard communication program, but they cannot be required to do so. The multi-employer requirements of 1926.59(e) obligate the employer on a multi-employer worksite who may be exposing the employees of another employer to hazardous chemicals (such as asbestos exposure through removal operations) to develop a written hazard communication program which includes the methods that will be used to inform the other employers of the potential hazards.

INTERPRETATION

29 CFR 1926.59(c); (d)(1); (e)(2); (g)(1); 1926.58(k); 1910.1001(j)(3)

DEC 26, 1989

MEMORANDUM

SUBJECT: Asbestos and the Hazard Communication Standard

This is in response to your memo of November 7 regarding the requirement of the Hazard Communication Standard (HCS) under 1926.59(e) for employers involved in asbestos removal to develop and implement a written hazard communication program specific to the hazard of asbestos exposure.

The scope and application section (b) of the HCS requires "all employers to provide information to their employees about the hazardous chemicals to which they are exposed by means of a hazard communication program..." etc. Further, the HCS at section (e), requires employers to develop, implement and maintain a written hazard communication program which includes (among other things) a list of the hazardous chemicals known to be present and a description of how the company will comply with sections (f), (g) and (h) of the standard. Section (e)(2) additionally requires employers on a multi-employer worksite who "produce, use or store hazardous chemicals" to develop a written hazard communication program. The HCS defines "use" as packaging, handling, reacting or transferring. The employees at an asbestos removal operation certainly are "handling" the hazardous chemical asbestos. Employers of employees involved in asbestos removal would therefore be required to develop a written hazard communication program not only to protect their employees, but also for the employees of other employers who may be exposed to the hazard of asbestos that is being created by the removal operations. Again, we believe these requirements are triggered by the scope and application section (b), the written program requirements at section (e), and the definitions section (c) (see definitions for "employee", "employer", "exposure" and "use").

You mentioned that the construction asbestos standard, 1926.58 does not require a MSDS for asbestos. We agree with the argument put forth in your memorandum that since 1926.58 does not specifically require that a written hazard communication program be developed for the hazards of asbestos exposure during removal operations, the more general requirement of 29 CFR 1926.59(e) applies to the situation. While we believe that 1926.59(e) of the HCS applies as set forth above to the hazards of asbestos-exposed employees during asbestos removal, we also acknowledge that a MSDS for "asbestos" cannot be required under 1926.59. It is the responsibility of the chemical manufacturer to develop the MSDS and send it to the downstream employer(s) for their information and use in their hazard communication programs. Obviously, asbestos-removal contractors have no way of obtaining the MSDS for the specific asbestos-containing materials they are removing. Employers may be encouraged, however, to obtain or develop a "generic" MSDS for "asbestos" for use in their overall hazard communication program, but they cannot be required to do so.

As discussed with Mr. J of your staff, we question the validity of the employer's assertion that "no other chemicals" (besides asbestos itself) are "used" during asbestos removal operations. We understand that this is the employer's defense for not having a written hazard communication program. Usually these types of removal operations involve the use and application of certain surfactants and wetting agents which would themselves be subject to the provision of the HCS and for which a written hazard communication program would need to have been developed. In any event, the multi-employer requirements of section (e) of the HCS obligates the employer on a multi-employer worksite who may be exposing the employees of another employer to hazardous chemicals, (in this situation the asbestos he is causing exposure to through his removal operations), to develop a written hazard communication program which includes the methods that will be used to inform the other employers of the potential hazards.

ATTACHMENT: The following interpretation (Record ID 3749) is included as supplemental information for the first instance of OSHA Standard 1926.59.

RECORD ID 3749

STANDARD NUMBER 1910.1200(e)(4); 1910.1200(e)(2); 1910.1200(g)(9); 1910.1200(e)(1);
1910.331(a); 1910.332(a); 1926.59(e)(1)
INFORMATION DATE 901018

ABSTRACT

An interpretation letter discussing the applicability of the Hazard Communication Program on site and standard covering electrical installation, maintenance or repair. Responses to questions concerning the new final rule amending Subpart S, Electrical, Section 1910.331 and 1910.332, and the Hazard Communication Standard requirements.

The new 1910 Subpart S amendments cover painting, decorating and paper hanging, and electrical work related to supply if the project involves only a change of color or wallcovering, or maintenance on existing wiring or circuitry. If the project involves structural remodeling or repair, the construction standards would apply.

An exception to the requirement that the written hazard communication program (HCP) be kept on-site may be allowed on multi-employer worksites where an employee(s) travels between workplaces yet who at times reports to a primary workplace where the written HCP is maintained.

INTERPRETATION

29 CFR 1910.1200(e)(4); 1910.1200(e)(2); 1910.1200(g)(9);
1910.1200(e)(1); 1910.331(a); 1910.332(a); 1926.59(e)(1)

OCT 18, 1990

This is in further response to your letter of August 13, to the Occupational Safety and Health Administration (OSHA), in which you requested a response to two questions. One of the questions concerned OSHA's new final rule concerning the amendments to Subpart S, Electrical, Sections 1910.331 and 1910.332, and the other question concerned the requirement for the employer to maintain the written hazard communication program on-site, as per 1910.1200 and 1926.59(e)(1).

Question 1:

Do the new 1910 Subpart S amendments cover painting, decorating and paper hanging and electrical work related to supply (as opposed to electrical work on equipment/machines beyond the supply interface)?

Response:

In responding to your question, the key concept which must be considered is the distinction between maintenance and repair. These activities are often very close and may require a case-by-case

determination based on actual circumstances at the worksite. In general the following observations are pertinent. If the project involves only a change of color or wallcovering, or maintenance on existing wiring or circuitry, the work would be covered under the General Industry Standards, 29 CFR Part 1910, and the new amendments would apply. On the other hand, if the project involves structural remodeling or repair, and includes painting, hanging wallpaper, or installation of new electrical supply wiring and components, the construction standards, 29 CFR Part 1926, would apply. Electrical work on equipment/machines other than supply components would be covered under the new amendments.

Question 2:

I note that OSHA has issued citations to employers for failure to produce their written Hazard Communication program at the time of the inspection. These citations have been issued in General Industry and in Construction....

While I would agree that it is good safety practice to have such a document "present" at each work site, please inform me if employers must have their written program at the work site at all times to be in compliance with either 1910.1200 or 1926.59.

Response:

This question regarding the requirement for on-site availability of the written hazard communication program ("HCP") is an issue that has arisen often in OSHA enforcement of the provisions at section (e)(1) and (e)(2) of the standard, and has caused the Agency to reconsider its compliance policy on the issue.

There is no question that the written HCP must be maintained on-site at fixed worksites or establishments. However, an exception to the requirement that the written hazard communication (HCP) be kept on-site may be allowed on multi-employer worksites and in situations where an employee(s) travels between workplaces yet who at times reports to a primary workplace facility where the written HCP is maintained. The standard sets forth, at (e)(1), a positive requirement for the written program to be maintained "at the workplace." OSHA previously interpreted this requirement to mean that the written program must be kept on-site at all times or even in the truck of employees who travel between worksites.

The Agency proposed, however, in the 1988 Notice of Proposed Rulemaking, to add a new subparagraph to the paragraph (e) requirements which allows the written program to be maintained at a "central location at the primary workplace facility" for employees who travel between workplaces during a workshift (proposed new paragraph (e)(5)). The final rule presently allows MSDSs to be maintained at the central workplace for employees who travel between workplaces during a workshift (paragraph (g)(9)). The (g)(9) provisions also require that employees have immediate access to MSDS information in the event of an emergency.

Unlike MSDS information which may be necessary to assure the safety of employees in the event of an emergency, the information contained in an employer's written HCP is mainly procedural and the presence of a written document on the worksite may not have a direct or immediate relationship to employee safety or health. This is especially true in situations where employers are implementing an effective overall HCP and whose employees have already received the required hazard communication training. The need for the program to be on-site, therefore, in situations where employees travel or are dispatched from a primary workplace location (e. g. , administrative offices) where the written program is maintained to a multi-employer worksite may bear no immediate relationship to safety and health and may, in the professional judgement of the Compliance Safety and Health Officer (CSHO) and Area Director, be considered a "de minimis" violation of section (e)(1) (see OSHA's Field Operation Manual, (FOM), Chapter IV, B.6., pages IV 30-31).

This policy also applies in situations where the employee does not return to the primary workplace during the workshift as long as the employee(s) is aware of the content of the program and the methods the program contains that affect the sharing of the hazard communication information

required at (e)(2)(i-iii). Stated in another way, if hazard communication information (accessibility of MSDSs, the employer's labeling system, etc.) is not being shared with other on-site employers and the employees are unaware of the methods outlined in the program which have been developed to accomplish this intent, then the need for the program to be on-site would bear a direct relationship to safety and health and the absence of the program on-site would not be a "de minimis" violation.

This change in citation policy will be communicated to Agency Regional staff by copy of this correspondence, and incorporation into new program guidance presently under development in the form of an updated compliance directive on inspection procedures for the Hazard Communication Standard.

At fixed worksite locations, the requirement for the written hazard communication program to be maintained on-site and readily accessible to employees remains.

SEP 3, 1990

This is an interim response to your letter of August 13, concerning the Occupational Safety and Health Administration's (OSHA) new final rule amending Subpart S, Electrical, Section 1910.331 and .332, and OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

SOURCE LETTER

AUG 13, 1990

I have the following two questions. One concerns the new final rule concerning the amendments to Subpart S, Electrical, Section 1910.331 and 1910.332. The other concerns the Hazard Communication Standard, 29 CFR 1910.1200.

1. The preamble to the Subpart S Electrical amendment suggests that painters and paper hangers are covered by the new rule (see 55 FR 32012; Table 7 - Occupations Requiring Training) as well as electricians.

Also 29 CFR 1910.332, Training, Table S-4 refers to the above occupations.

The authority noted for Subpart S of part 1910 is Sections 4, 6, 8 of the OSH Act of 1970.

According to the Standard Industrial Classification Manual (1972), Painting, Paper Hanging and Decorating (SIC 172) and Electrical Work (SIC 173) are classified as Special Trade Contractors.

Under 29 CFR 1926, Subpart C - General Safety & Health Provision, (authority, Section's. 4, 6, 8 of the OSH Act of 1970) section 1926.20 notes contractor requirements and sets out the scope of coverage for "construction, alteration, and/or repair, including painting and decorating...." (Underlining added for emphasis.)

In my experience, it has been OSHA's policy to include painting and decorating as a construction activity. In addition, when electricians in General Industry install new service, or repair existing service, OSHA has considered that activity to be construction.

Does the new 1910 Subpart S amendments cover painting, decorating and paper hanging, and electrical work related to supply (as opposed to electrical work on equipment/machines beyond the supply interface)?

2. I note that OSHA has issued citations to employers for failure to produce their written Hazard Communication program at the time of the inspection. These citations have been issued in General Industry and in Construction.

I note in 1910.1200 and 1926.59, paragraph (e)(4), that "the employer shall make the written hazard communication program available, upon request, to employees, their designated representatives, the Assistant Secretary and the Director, in accordance with the requirements of 29 CFR 1910.20(e)." (Underlining added for emphasis.)

29 CFR 1910.20(e) provides that "...the employer shall assure that access is provided in a reasonable time, place, and manner, but in no event later than fifteen (15) days after the request for access is made". (Underlining added for emphasis.)

29 CFR 1910.1200 and 1926.59, paragraph (e)(1) states that "Employees shall develop, implement, and maintain at the workplace, a written hazard communication program..." (Underlining added for emphasis.)

Paragraph (e)(1) would seem to conflict with 1910.20(e)(4) in that "maintain" could mean that it must be present at all times at the work site, rather than meaning the maintenance of such a program. However, since 1910.20(e)(4) is specific to the time frame required to produce such a document, it would seem that the specific overrules the general if "maintain" means "present".

While I would agree that it is good safety practice to have such a document "present" at each work site, please inform me if employers must have their written program at the work site at all times to be in compliance with either 1910.1200 or 1926.59.

RECORD ID**3544**

**STANDARD NUMBER
INFORMATION DATE****1926.59(g)(8); g)(9)
900516**

ABSTRACT

This interpretation letter addresses the availability of MSDS's on construction sites. Each contractor has a responsibility to ensure that his employees have ready access to MSDS's for each hazardous chemical in the workplace during each work shift. If the contractor chooses to share his MSDS's at a central location, where a copy of all the employer's MSDS's will be kept, the employees must have access to them at all times they are working on the site. If the party who has agreed to maintain all MSDS's at a central location does not provide for access to MSDS's at all times that employees are on-site, then that party would normally be cited for violation of 29 CFR 1926.59(g)(8). However, if the MSDS's are not available because the contractor failed to provide them, then that contractor would normally be cited.

INTERPRETATION**29 CFR 1926.59(g)(8); g)(9)****MAY 16, 1990**

Thank you for your letter of March 15, regarding the availability of material safety data sheets (MSDS's) on construction sites, as required under the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS), 29 CFR 1926.59. I apologize for the delay in this response.

As you are aware, the HCS "Multi-employer workplaces" provision at 29 CFR 1926.59(e)(2) states that employers who use or store hazardous chemicals at a worksite in such a way that the employees of other employers may be exposed are required to incorporate additional elements into their hazard communication program. On a multi-employer worksite, each employer's hazard communication program must specify the method that the employer will use to provide the other employers with copies of his MSDS's, or the method he will use to make them available at a central location. The number of MSDS's that a contractor must have depends on the method used on the site to provide information to other employers.

If MSDS's are not maintained at a central location, each contractor must provide MSDS's to the other employers for each hazardous chemical the other employers' employees may be exposed to while working. Although a contractor does not actually have to physically give another employer the MSDS, he must make it available at the worksite for review. In some circumstances, a contractor may prefer to distribute copies of MSDS to other employers rather than provide continual access to those MSDS's.

If the contractor chooses to rely on a method of sharing his MSDS's at a central location, where a copy of all the employers' MSDS's will be kept, the method must also provide for access to them at all times employees are working on the site. If the party who has agreed to maintain all MSDS's at a central location does not provide for access to MSDS's at all times that employees are on-site, then that party would normally be cited for a violation of 29 CFR 1926.59(g)(8). However, if the MSDS's are not available because the contractor failed to provide them, then that contractor would normally be cited.

Each contractor has a responsibility to ensure that his employees have ready access to MSDS's for each hazardous chemical in the workplace during each work shift. If a contractor relies on another employer to maintain his MSDS's, and the MSDS's are unavailable to that contractor's employees, the contractor could be cited under 1926.59(g)(8), unless it is determined that he has a legitimate defense to a citation. OSHA's compliance and enforcement policies at multi-employer worksites, including legitimate defense, are set forth in the Agency's Field Operations Manual ("FOM") in Chapter V, sections F.1. and 2. If an exposing employer meets all the conditions set forth in section F.2., then that employer would not be cited. A copy of these sections of the FOM is enclosed for your information and review.

The intent of OSHA's HCS is met on a multi-employer worksite when information on the hazards of chemical substances at the worksite is transmitted to or shared with all affected employers and their employees, and that information is readily accessible to employees when they are in their work areas. The ultimate goal of all OSHA policies and any resultant enforcement actions is to ensure safe and healthful workplaces by the most efficient means known. I can assure you that this is the Agency's intent behind any and all enforcement actions taken by OSHA personnel at the workplaces we inspect. The HCS, being a "performance-oriented" standard, gives employers the flexibility to adapt the rule to the needs of the workplace situation, instead of having to follow specific, rigid requirements. Employers will, therefore, have to exercise more judgement in implementing an appropriate and effective program in order to meet the intent of the standard.

Attach:

OSHA Instruction CPL 2.45B
JUN 15, 1989

F. Multi-Employer Worksites.

1. **Issuance of Citation.** On multi-employer worksites, citations shall be issued to employers whose employees are exposed to hazards, unless such an employer meets all of the conditions for a legitimate defense set forth at F.2.
 - a. Additionally when a more expeditious abatement of the hazard can be thus obtained, the employer with responsibility for creating and/or correcting the hazard shall also be cited.
 - b. If employees of more than one employer are exposed to a hazard, however, citations shall normally be issued to each of the exposing employers as well as to the employer responsible for correcting or for ensuring the the correction of the condition (the controlling employer) and/or the employer causing the condition.
2. **Legitimate Defense.** Prior to issuing citations to an employer with employees exposed to a hazard, it must first be determined whether the exposing employer(s) has a legitimate defense to the citation, as set forth below:
 - a. The employer did not create the hazard;
 - b. The employer did not have the authority or the ability to correct the hazard;
 - c. The employer specifically requested the controlling employer and/or the hazard-creating employer to correct the hazard to which his/her employees were exposed and made a reasonable effort to persuade the responsible employer to correct the hazard;
 - d. The employer has instructed and, where necessary, informed employees how to avoid or minimize the dangers associated with the hazardous conditions and, where feasible, has taken alternative means of protecting employees from the hazard short of walking off the job (except when special circumstances require such extreme action).

NOTE: All of these items must be documented in the case file.

SOURCE LETTER

March 15, 1990

This letter concerns Material Safety Data Sheets (MSDS's), and the uncertainty that many construction contractors are experiencing as to who bears the responsibility for maintaining these to ensure worker access to them.

A construction site usually consists of a general contractor and any number of subcontractors. As required by OSHA's Hazard Communication Standard (HCS), a subcontractor must have MSDS's for the hazardous substances he uses. These must be available not only to his own employees, but to any others on the site who might be exposed to those chemicals. I have been informed by the general contractor on a job that exposure to empty containers still constitutes exposure and, since he maintains a trash bin used by everyone on the site, that he must have a copy of everyone's MSDS's. It has always been my understanding that a subcontractor need only have one set of MSDS's. However, the general contractor may have several jobs going at once and, if he leaves the site and locks his office trailer, where the MSDS's for everyone are kept, then any subcontractor could be cited for their absence. This leaves us uncertain as to whether a subcontractor must maintain two sets of MSDS's, particularly in light of the erratic enforcement to which the construction industry has been subjected since the HCS was expanded. I would appreciate hearing your comments on this situation, so that Company XX can keep its members properly informed on their responsibilities under HazCom.

RECORD ID D9310023

STANDARD NUMBER 1926.62 (d)(1), (d)(2)(v)(E), (d)(2)(v)(F), (d)(3)(i), (d)(3)(ii), (d)(3)(iv), (d)(4), (d)(5), (j)(1)(i), (j)(1)(ii), (j)(2)(i)(A), (j)(2)(i)(B), (i)(2); 1926.59 (h)(2); 1926.21 (b)(2)
INFORMATION DATE 931122

ABSTRACT This interpretation addresses five questions about the Occupational Safety and Health Administration (OSHA) standard 29 CFR 1926.62 governing lead exposure in construction. The questions concern initial determinations of exposure, biological monitoring, medical surveillance, and training.

INTERPRETATION 29 CFR 1926.62 (d)(1), (d)(2)(v)(E), (d)(2)(v)(F), (d)(3)(i), (d)(3)(ii), (d)(3)(iv), (d)(4), (d)(5), (j)(1)(i), (j)(1)(ii), (j)(2)(i)(A), (j)(2)(i)(B), (i)(2); 1926.59 (h)(2); 1926.21 (b)(2)

This interpretation is in response to your questions of October 18, 1993, regarding the OSHA standard 29 CFR 1926.62, Lead Exposure in Construction.

Question (1):

29 CFR 1926.62 (d)(2)(v)(E), Biological monitoring: As cited, biological monitoring is required as a prerequisite to any lead work, even if no exposure is foreseen. This conflicts with the reference citation in this section, which directs biological monitoring to be conducted in accordance with (j)(1)(i). This reference reads: "the employer shall make available initial medical surveillance to employees occupationally exposed on any day to lead at or above the action level." Since you would not know this ahead of time:

- Must the employee be in biological monitoring prior to any potential lead work?
- Under the 5-3-1 year medical exam cycle, does initial testing for both blood lead and zinc protoporphyrin (ZPP) meet the requirement? (Contractor's annual physical cycle)

Answer (1):

Although biological monitoring is not required prior to construction work with potential exposure to lead, OSHA recommends it and, in fact, requires it within 48 hours once an employee is exposed. As for the differences you point out between sections of 29 CFR 1926.62, OSHA distinguishes between employees performing certain types of tasks involving lead [as specified in 29 CFR 1926.62 (d)(2)(i)-(iv)] and other employees who might become exposed to lead.

Exposure assessments must be performed for employees potentially exposed to lead to determine whether the concentration of lead in the air has reached or above the action level (AL) of 30 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) of air [measured as an 8-hour time weighted average (TWA)]. Once the exposure assessment has been completed, employers must provide medical surveillance, including biological monitoring, to any employee whose exposure exceeds the action level.

Additionally, if employees are involved in the tasks specified in 29 CFR 1926.62 (d)(2)(i)-(iv) and an exposure assessment has not yet been conducted, the employer must treat the employees as if they were exposed to lead above the permissible exposure limit (PEL) and provide interim protection until the actual employee exposure is determined. These interim protective measures, as specified in 29 CFR 1926.62 (d)(2)(v), include biological monitoring in the form of blood sampling and analysis for lead and ZPP levels. Initial medical surveillance (blood testing for lead and ZPP) should be made available before

the employee begins the assignment but no later than a "reasonably prompt" time after the employee has had an exposure. OSHA considers 48 hours as an appropriate measure of reasonable promptness.

In summary, biological monitoring must be made available for each employee involved in the tasks specified in 29 CFR 1926.62(d)(2)(i)-(iv), and for any employee who has been exposed to lead above the AL. DOE recommends that the initial medical surveillance (blood lead and ZPP analysis) be made available prior to job assignment but requires it within 48 hours of an exposure.

Question (2):

Standard 29 CFR 1926.62 (d)(5), Negative initial determination: This section directs that the names of exposed employees monitored be recorded. Must air samples be collected in all cases, rather than relying on the objective criteria established at 29 CFR 1926.62 (d)(3)(i)?

Answer (2):

Any time an employer determines that no employee has been exposed to airborne concentrations of lead at or above the AL, the employer must keep written records of that determination. The record must include the information specified in 29 CFR 1926.62 (d)(3)(i). It also must include the date on which the level was determined, the location within the worksite, and the name and social security number of each employee monitored.

The standard requires initial monitoring of only a representative sample of the employees believed to have the highest exposure levels. If these measurements indicate that exposures are all below the AL, no further monitoring is required. However, if any employee is found to be at or above the AL, then the employer must conduct monitoring which is representative of the exposure for each employee who is exposed to lead as set forth in 29 CFR 1926.62 (d)(4). In carrying out this air monitoring program, the employer is not required to monitor the exposure of every employee but must monitor a representative number of employees and job types. In addition, the monitoring program is required to ensure that samples represent exposures over a full-shift; and samples are taken under conditions representative of employees' daily exposure to lead.

Use and/or reliance on objective data, as described in 29 CFR 1926.62 (d)(3)(iv), is an acceptable alternative to initial monitoring, except for employees who are performing tasks specified in 29 CFR 1926.62 (d)(2)(i)-(iv). The nature and relevancy of the data must be documented. The employer must have the data and must have performed an exposure assessment using the data. Historical data, as described in 29 CFR 1926.62 (d)(3)(iii), can be used to satisfy the requirements for initial monitoring for employees involved in any tasks, provided that all the following criteria are met:

- The data were obtained within the past 12 months;
- The sampling and analytical methods satisfy the accuracy and confidence level requirements of 29 CFR 1926.62 (d)(9);
- The processes and work practices that were in use when the data were obtained are the same as those for current operations;
- The characteristics of the lead-containing material in use when the data were obtained are the same as those for current operations;
- The environmental conditions that prevailed when historical data were obtained are the same as current conditions; and
- These factors were documented at the time the historical data were collected.

If the historical data were not collected within the past 12 months, or were obtained on projects conducted by other employers but all other criteria are met, the employer is considered to be in compliance with the intent of the standard (a de minimis violation would exist).

Question (3):

29 CFR 1926.62 (j), Medical surveillance: Initial tests are required for every job; full medical surveillance occurs in accordance with (j)(2) and (j)(3) if [exposure level is] above the AL for 30 days. Does the initial test have an expiration requirement; conversely, must the initial test be done on some frequency, such as annual, basis?

Answer (3):

The frequency of initial medical surveillance (testing for blood lead and ZPP levels) and examinations is dependent on the employee's airborne lead exposure, frequency of exposure, and blood lead levels. If an employee is exposed to airborne lead at or above the AL for more than 30 days a year, the employer must provide a medical surveillance program to the employee. It is required that this program consist of routine monitoring of an employee's blood lead and ZPP levels, and be made available at least every 2 months for the first 6 months in the exposed job and every 6 months thereafter.

The employer must provide an employee a full medical surveillance program, including annual medical exams, anytime the employee's blood level is found to exceed 40 micrograms per deciliter ($\mu\text{g}/\text{dl}$).

As stated in 29 CFR 1926.62 (j)(3)(i), the employer must make medical examinations and consultations available to each employee exposed to lead at or above the AL for more than 30 days per year. The frequency of medical examinations and consultations is at least annually for those employees for whom a blood sampling test conducted at any time during the preceding 12 months indicated a blood lead level at or above 40 $\mu\text{g}/\text{dl}$; or as soon as possible, upon notification of an employee.

If none of these criteria are met (e.g., the employee is not exposed to lead above the AL for more than 30 days per year, and blood lead levels are below 40 $\mu\text{g}/\text{dl}$) but the employee is performing a task for which initial testing (blood lead and ZPP levels) is required, medical examinations and consultations must be performed frequently enough to ensure that the employee is being protected. This determination should be based on three factors: (1) the employee's occupational exposure history, nonoccupational exposure history, and medical conditions that could be aggravated by lead exposure; (2) the nature of current operations and resultant or expected airborne lead levels; and (3) the expected frequency of exposure. At a minimum, initial testing should be conducted every 12 months.

Question (4):

29 CFR 1926.62 (l)(2), Training program: The training program as defined must cover the specific nature of exposures and the contents of a compliance plan in effect for a specific job. Can the training be established as part of a pre-job briefing, given the broad nature and complexity of the dozens of different lead (potential) jobs? Would this satisfy the training recordkeeping requirement? Alternatively, we could document all of the requirements and include a mandatory pre-job briefing as part of the training.

Answer (4):

All employees, regardless of exposure, are required by 29 CFR 1926.59, Hazard Communication standard, to receive training at their work site. The interim final standard specifically incorporates this requirement by reference. Further, all construction employees are required to undergo training relevant to all the health and safety hazards of the workplace as directed by 29 CFR 1926.21, Safety Training and Education standard. 29 CFR 1926.59 would not normally cover employees subject to lead exposure generated from lead-containing materials already in place on the job. Employees exposed to such hazards are covered by 29 CFR 1926.21 (b)(2) which requires that the employer instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to employee's work environment in order to control or eliminate any hazard or other exposure to illness or injury. Training must be provided prior to the time of job assignment and must be conducted annually.

An effective employee training program provided under 29 CFR 1926.62 (l) must include the elements listed in 29 CFR 1926.62 (l)(2)(i)-(viii) and must specifically match the job conditions. A generic training

program can be used, but it must be modified to address site-specific issues, such as the operations with exposures greater than the AL; engineering controls; work practices; personal protective equipment needed for specific job assignments; and the medical surveillance program. The trainer must be able to address site-specific issues and demonstrate expertise in lead hazards and their control. This training is required in addition to the other requirements of 29 CFR 1926.59; and it applies whenever the employee exposure is at or above the AL, without regard to the use of respiratory protection, or when the employee is subject to exposure to lead compounds that may cause skin or eye irritation.

If training is being conducted as part of the interim protection specified in 29 CFR 1926.62 (d)(2)(v), the training requirements of 29 CFR 1926.59 and 29 CFR 1926.21 apply. The training must be presented in a manner that is appropriate to the employees' education, literacy level, and language.

Question (5):

Standard 29 CFR 1926.62 (d), Initial determination: What specific method(s) is acceptable to determine the absence of any lead sources? What are the required detection limits?

Answer (5):

Testing potential sources for lead should be performed by collecting bulk samples of material for subsequent laboratory analysis. Sampling and analytical methods are listed in sources such as the American Industrial Hygiene Association (AIHA) bibliography, *Sampling for Environmental Lead*, and the Department of Housing and Urban Development publication, *Lead-Based Paint: Interim Guidelines for Hazard Identification and Abatement in Public and Indian Housing*.

Laboratory selection is an important part of a lead sampling program. Laboratory accreditation programs for lead are currently under development. Applications for one such accreditation program (administered by AIHA and recognized by the Environmental Protection Agency) have been distributed. As of this writing, no laboratory has completed the accreditation process. In the interim, when selecting a laboratory, you should consider staff qualifications, quality assurance/quality control procedures, data handling, document control, and the existence of and adherence to established standard operating procedures. A laboratory certified in another area will generally have programs in place to address these items. These programs may be an indication of the quality of their work.

RECORD ID D9310026

STANDARD NUMBER 1926.62, (c)(1), (d)(2)(v), (e)(2)(i)
INFORMATION DATE 931122

ABSTRACT This interpretation addresses two questions concerning the minimum concentrations of lead that would trigger actions under the Occupational Safety and Health Administration (OSHA) standard 29 CFR 1926.62 governing lead exposure in construction.

INTERPRETATION 29 CFR 1926.62, (c)(1), (d)(2)(v), (e)(2)(i)

This interpretation is in response to your questions of October 19, 1993, regarding the OSHA standard 29 CFR 1926.62, Lead Exposure in Construction.

Question (1):

Under the lead in construction standard 29 CFR 1926.62, is there a concentration limit of lead in the source material below which there can be an exemption from this regulation?

Answer (1):

29 CFR 1926.62 does not specify a minimum amount or concentration of lead that triggers a determination that lead is present and that the potential for exposure exists. However, the standard does not apply if the employer has appropriately tested all potential sources of lead (for example, tested all layers of paints and coatings that may be disturbed) using a valid detection method and found no detectable levels of lead.

Question (2):

If one assumes that the worker is to be protected as though the lead concentration is above the permissible exposure limit (PEL), does a compliance plan need to be written, or does the work proceed without a compliance plan until monitoring indicates the PEL is met or exceeded [particularly for those activities listed in 29 CFR 1926.62 (d)(2)]?

Answer (2):

OSHA requires employers to develop and implement written compliance programs as a mechanism to achieve compliance with the PEL of 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) of air as an 8-hour time-weighted average (TWA) exposure. However, a compliance program is not required if an exposure assessment (exposure monitoring, historical data, or other objective data) indicates that employees are not exposed to lead concentrations above this level.

The written compliance program is required if the exposure assessment indicates that exposures above the PEL exist.

It is the employer's responsibility to ensure that the assessment is conducted and that employees are provided interim protection until actual lead exposures are determined. The interim protection required by OSHA [for the tasks specified in 29 CFR 1926.62 (d)(2)(i)-(iv)] includes appropriate respiratory protection, personal protective clothing, change areas, hand-washing facilities, biological monitoring, and training, in accordance with 29 CFR 1926.62 (d)(v).

Written compliance programs are not specifically required by OSHA as interim protection. However, a violation of the standard would exist if employees are exposed to lead at concentrations exceeding the PEL and no written compliance program has been established and implemented by the employer.

RECORD ID D9310053

STANDARD NUMBER 1926.62, (c), (d)(2)(v)(F), (f)(1)(iii) (l)(1)(i), (l)(2); 1910.134 (b)(1), (b)(3), (b)(5), (b)(6), (b)(10), (b)(11); 1926.21 (b)(2)
INFORMATION DATE 931122

ABSTRACT This interpretation addresses four questions about the Occupational Safety and Health Administration (OSHA) standard 29 CFR 1926.62 governing lead exposure in construction. The questions concern respiratory protection, training, and the OSHA compliance directive.

INTERPRETATION 29 CFR 1926.62, (c), (d)(2)(v)(F), (f)(1)(iii) (l)(1)(i), (l)(2); 1910.134 (b)(1), (b)(3), (b)(5), (b)(6), (b)(10), (b)(11); 1926.21 (b)(2)

This interpretation is in response to your questions of October 28, 1993, regarding the OSHA standard 29 CFR 1926.62, Lead Exposure in Construction.

Question (1):

The lead standard requires the provision of a respirator to any employee who requests one if there is a lead source in the workplace that can create lead emissions, even below the action level. How does the employer determine if a source contains less than 1 percent lead?

Answer (1):

29 CFR 1926.62 does not specify a minimum amount or concentration of lead that triggers a determination that lead is present and that the potential for exposure exists. However, the standard does not apply if the employer has appropriately tested all potential sources of lead (for example, tested all layers of paints and coatings that may be disturbed) using a recognized analytical method and found no detectable levels of lead.

Testing potential sources for lead should be performed by collecting bulk samples of material for subsequent laboratory analysis. Sampling and analytical methods are listed in sources such as the American Industrial Hygiene Association (AIHA) bibliography, *Sampling for Environmental Lead*, and the Department of Housing and Urban Development publication, *Lead-Based Paint: Interim Guidelines for Hazard Identification and Abatement in Public and Indian Housing*.

Question (2):

Is the employer required to comply with all of the provisions of 29 CFR 1910.134 if a respirator is requested, even though the exposure is below the action level?

Answer (2):

The employer must institute a respiratory protection program if there is a potential for exposure to an airborne concentration of a toxic substance at or above the permissible exposure limit (PEL) for an employee who voluntarily wears a respirator. This program must be instituted as specified in 29 CFR 1910.134 and the latest version of American National Standards Institute (ANSI) standard Z88.2, "Respiratory Protection." If exposures are below the action level and an employee requests a respirator, the following five primary provisions of 29 CFR 1910.134 would apply:

- 29 CFR 1910.134 (b)(1), which requires written standard operating procedures;
- 29 CFR 1910.134 (b)(3), which requires training in the proper use, care, and limitations of respirators;

- 29 CFR 1910.134 (b)(5) and (6), which require that respirators be regularly cleaned and disinfected and stored in a clean, sanitary location;
- 29 CFR 1910.134 (b)(10), which requires that employers determine (e.g., through medical surveillance) whether employees are physically able to perform the work; and
- 29 CFR 1910.134 (b)(11), which requires the use of approved respirators.

Question (3):

How does the lead standard requirement for training relate to the hazard communication standard?

Answer (3):

All employees, regardless of exposure, are required by 29 CFR 1926.59, Hazard Communication standard, to receive training at their work site. The interim final standard, 29 CFR 1926.62, specifically incorporates this requirement by reference. Further, all construction employees are required to undergo training relevant to all the health and safety hazards of the workplace as directed by 29 CFR 1926.21, Safety Training and Education standard. 29 CFR 1926.59 would not normally cover employees subject to lead exposure generated from lead-containing materials already in place on the job. Employees exposed to such hazards are covered by 29 CFR 1926.21 (b)(2) which requires that the employer instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to employee's work environment in order to control or eliminate any hazard or other exposure to illness or injury. Training must be provided prior to the time of job assignment and must be conducted annually.

An effective employee training program provided under 29 CFR 1926.62 (l) must include the elements listed in 29 CFR 1926.62 (l)(2)(i)-(viii) and must specifically match the job conditions. A generic training program can be used, but it must be modified to address site-specific issues, such as the operations with exposures greater than the action level; engineering controls; work practices; personal protective equipment needed for specific job assignments; and the medical surveillance program. The trainer must be able to address site-specific issues and demonstrate expertise in lead hazards and their control. This training is required in addition to the other requirements of 29 CFR 1926.59; and it applies whenever the employee exposure is at or above the action level, without regard to the use of respiratory protection, or when the employee is subject to exposure to lead compounds that may cause skin or eye irritation.

If training is being conducted as part of the interim protection specified in 29 CFR 1926.62 (d)(2)(v), the training requirements of 29 CFR 1926.59 and 29 CFR 1926.21 apply. The training must be presented in a manner that is appropriate to the employees' education, literacy level, and language.

Question (4):

When will OSHA and/or DOE issue Interpretations on the lead standard?

Answer (4):

The OSHA compliance directive (CPL 2-2.58), dated December 13, 1993, has been issued. A copy can be requested from OSHA by calling the nearest area office in your State. Interpretations on occupational safety and health standards or Orders can always be obtained by DOE offices or its contractors by calling the DOE Occupational Safety and Health Standards Interpretations Response Line at (800) 292-8061.

RECORD ID 1467

STANDARD NUMBER 1926.100(a); 1910.132(a); 1910.135
INFORMATION DATE 830823

ABSTRACT This interpretation letter addresses standards for head protection. Employees working in areas where there is possible danger of head injury from impact, from falling or flying objects, or from electrical shock and burns shall be protected by protective helmets. Protective equipment shall be provided for the workers by the employer by the employer.

(NOTE: This standard has not been amended since issuance.)

INTERPRETATION 29 CFR 1926.100(a); 1910.132(a); 1910.135

August 23, 1983

This is in response to your letter of July 29, 1983, on behalf of Mr.L concerning OSHA's regulations for the wearing of hard hats.

The OSHA standards 29 CFR 1926.100 for construction and 29 CFR 1910.132 and 1910.135 for general industry (copies enclosed) outline the requirements for head protection. The standards require that head protection be used whenever it is necessary by reason of hazard of processes or environment that could cause head injuries.

The employer must determine which employees are exposed to possible head injury hazards, and assure that they wear appropriate head protection. Where employees are not exposed to possible head injuries, head protection is not required by OSHA standards. An employer may choose to require the wearing of head protection by certain employees or in certain activities at all times as a precautionary measure, although this may be a matter subject to labor/management negotiation.

OSHA has no exhaustive guidelines for determining whether head protection is required, this must be done on a case-by-case basis, depending on the specific operation, worksite, potential hazards, and other circumstances.

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DOE Interpretations Guide to OSH Standards

July 1,1992

RECORD ID 92072201

STANDARD NUMBER 1926.100(a); (b)
INFORMATION DATE 19920722

ABSTRACT Protective helmets must meet specifications of ANSI standard Z89.1-1969. Because ANSI only tests and certifies hard hats to be worn with the bill forward, hard hats with the bill worn to the rear would not meet the requirements of 1926.100(a) and (b) unless the manufacturer certifies that wearing it in this manner meets the ANSI Z89.1 standard specs.

INTERPRETATION 29 CFR 1926.100(a); (b)

July 22, 1992

Dear Mr. S:

This is in response to your May 14 letter requesting an interpretation of an Occupational Safety and Health (OSHA) standard addressing the use of head protection at construction sites. I apologize for the delay in responding to your inquiry.

As you know, sections 1926.100(a) and (b) require employees to be protected by protective helmets that meet the specifications of the American National Standards Institute (ANSI) standard Z89.1, 1969, Safety Requirements for Industrial Head Protection. Because ANSI only tests and certifies hard hats to be worn with the bill forward, hard hats worn with the bill to the rear would not be considered reliable protection and would not meet the requirements of 29 CFR 1926.100(a) and (b) unless the hard hat manufacturer certifies that this practice meets the ANSI Z89.1-1969 requirements.

If we can be of any further assistance, please contact Mr. R. F. G. or Mr. D. R. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523- 8136.

RECORD ID 91120202

STANDARD NUMBER 1926.100 (a)
INFORMATION DATE 19911202

ABSTRACT An interpretation letter whether workers erecting scaffolding with nothing above them are required to wear protective helmets. Employees are susceptible to impact-type head injuries while handling scaffolding material at head level, bending and leaning between scaffolding members and from slips and falls. Therefore, protective helmets are required.

INTERPRETATION 29 CFR 1926.100 (a)

December 02, 1991

Dear Mr. B:

This is in response to your September 26 letter requesting an interpretation of the Occupational Safety and Health Administration's requirement for the use of protective helmets. I apologize for the delay in responding to your inquiry.

In regard to whether workers erecting scaffolding with nothing above them are required to wear protective helmets, please be advised that although there may be no hazards from falling objects during scaffolding erection, possible danger of head injury still exists. Employees are susceptible to impact-type head injuries while handling scaffolding material at head level, bending and leaning between scaffolding members and from slips and falls. Therefore, protective helmets are required.

If we can be of any further assistance, please contact R. F. G. or D. R. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

RECORD ID 1442

STANDARD NUMBER 1926.103(b)(2); 1910.134(c); 1926.956(a)(3)
INFORMATION DATE 750310

ABSTRACT This interpretation letter addresses the use of respirators for work in manholes. Presence of emergency respiratory equipment during underground lines work is not necessary unless toxic gases and vapors may be present.

INTERPRETATION 29 CFR 1926.103(b)(2); 1910.134(c); 1926.956(a)(3)

March 10, 1975

This is in response to your letter of February 18, 1975, with reference to work in manholes.

The rules quoted in your letter; i.e., 1926.956(a)(3)(i), (ii), and (iii), do not require the presence of emergency respiratory equipment in the immediate vicinity when work is being performed on underground lines.

However, 1926.103, which also applies to this type of work, states: "In emergencies, or when controls required by Subpart D of this Part either fail or are inadequate to prevent harmful exposure to employees, appropriate respiratory protective devices shall be provided by the employer and shall be used."

It is important to remember that, although Subpart V of the Construction Standards is specific for power transmission and distribution lines, other parts of Part 1926, the Construction Standards, may also apply. In this instance, the rules for toxic gases and vapors (not mentioned in Subpart V) and emergency respiratory equipment contained in Subpart D and E are applicable.

ATTACHMENT: The following Interpretation (Record ID 3353) is included as supplemental information for this first instance of OSHA Standard 1926.103.

RECORD ID 3353

STANDARD NUMBER 1910.134(e)(3)(i); 1915.35(a)(1)(i); 1915.36(a)(2); 1915.36(a)(6);
INFORMATION DATE 1915.94; 1926.103(b)(2)
900430

ABSTRACT This interpretation letter addresses a request for expedited approval to issue a citation under 1910.134(e)(3)(i) for maritime, shipbuilding operations. Shipyard is in violation of standards relating to hazards from conducting spray painting in a confined space during shipbuilding. Based on review of the facts and discussing this situation with SOL's Counsel for Trial and OSHRC Litigation, citing this shipbuilding employer for an alleged violation of 29 CFR 1910.134(e)(3)(i) can not be recommended. The application of 29 CFR 1915.35, .36 and .94 in this situation addresses these same hazards more specifically when they occur in a shipyard. Also 5(a)(1) should be considered.

INTERPRETATION 29 CFR 1910.134(e)(3)(i); 1915.35(a)(1)(i); 1915.36(a)(2);
1915.36(a)(6); 1915.94; 1926.103(b)(2)

APR 30, 1990

MEMORANDUM

SUBJECT: Request for Expedited Approval to Issue a Citation Under 1910.134 (e)(3) (I) for Maritime, Shipbuilding Operations

Your April 16, 1990, memorandum requested approval as required by OSHA Instruction STD 2 Paragraph D.2, to issue a citation to the shipyard for an alleged violation of 29 CFR 1910.134(e) (3) (I).

Per phone discussions conducted during April 18 through April 20, between Mr. B and Mr. J ((city) Area Office) the following principal facts pertain to this subject citation:

1. An employee working alone was conducting spray painting operations within confined spaces during the construction of a new vessel (Shipbuilding).
2. Entry into each confined space involved consisted of one entry way with limited and difficult access and egress.
3. Per the Material Safety Data Sheets provided by the employer, the flash point of the paint being used was 99 degrees Fahrenheit. Therefore, the paint used is considered a flammable liquid.
4. The employee was wearing a respirator of the cartridge and filter type.
5. The employee was not assigned a designated tender.
6. No fire equipment was stationed or immediately available for use outside the confined spaces.
7. No rescue equipment was available at the confined spaces during the spray painting operations.
8. No means for extracting the employee from the confined space were considered or available.
9. The paint being sprayed was determined to have been mixed with toxic solvents.
10. No competent person was assigned to monitor atmospheric conditions within the space.

After reviewing the facts and discussing this situation with SOL's Counsel for Trial and OSHRC Litigation, citing this shipbuilding employer for an alleged violation of 29 CFR subsection 1910.134(e)(3)(I) can not be recommended. A research of all existing OSHA records pertaining to this specific general industry standard and the current shipyard standards related to the type of hazards involved, indicates that the application of 1910.134(e)(3)(I) in this situation would be highly questionable in light of the fact that a more specific standard addresses these same hazards when they occur in a shipyard (i.e., 29 CFR subsection 1915.94). It is recognized that the requirements for having an additional worker available for emergencies is not as strict under this more specific standard. However, citing this more general standard would be contrary to the requirements that specific standards prevail over any applicable general standard covering the same hazardous situation. However, we can recommend that the following standards be cited with respect to this situation which involves: working in a confined space, with limited and difficult access, in a potentially flammable atmosphere, on a new construction vessel:

-- 29 CFR 1915.35(a) (1) (I); "In confined spaces, employees continuously exposed to such spraying shall be protected by air line respirators in accordance with the requirements of 1915.152(a)."

-- 29 CFR 1915.36(a) (2); "Ventilation shall be provided in sufficient quantities to keep the concentration of vapors below ten (10) percent of their lower explosive limit. Frequent tests shall be made by a competent person to ascertain the concentration."

-- 29 CFR 1915.36(a) (6); "Suitable fire extinguishing equipment shall be immediately available in the work area and shall be maintained in a state of readiness for immediate use."

-- 29 CFR 1915.94; "When an employee is working alone in an isolated location, frequent checks shall be made to ensure the safety of the employee."

-- 29 CFR 1910.134 (e) (1); "Standard procedures shall be developed for respirator use. These should include all information and guidance necessary for their proper selection, use, and care. Possible emergency and routine uses of respirator should be anticipated and planned for." (Note: Should also consider citing 5(a)(1) in the alternative)

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DOE Interpretations Guide to OSH Standards

July 1, 1992

RECORD ID 1216

STANDARD NUMBER 1926.104(d); 1926.104(c)
INFORMATION DATE 790326

ABSTRACT This interpretation letter addresses the evaluation of automatic fall protection devices. 29 CFR 1926.104(d) requires rope with a 5400 lb. break strength. Automatic fall protection devices are not specifically required or regulated by OSHA. However, the device described here, if used as an automatic taut lifeline, appears to meet the intent of the standard.

(NOTE: This standard has not been amended since issuance.)

INTERPRETATION 29 CFR 1926.104(d); 1926.104(c)

March 26, 1979

This is in response to your recent request for an official interpretation of the intent of 29CFR 1926.104. You have also requested that this office evaluate your (company) products against the above standard and any applicable general industry standards. This National Office interpretation supersedes the Regional response dated February 28, 1979, concerning the same subject.

As indicated in your letter, the (company) 30 rope break strength is approximately 4000 lbs. and the (Company) 50 cable break strength is approximately 3000 lbs. Both of the above lifelines fail to comply with the 5400 lbs. strength requirement contained in 29 CFR 1926.104. However, your retracting reel locking type system is more sophisticated, in that the disc brake attached to the lock acts to cushion a fall to less than six inches for a 350 lb. drop weight as verified by (City) Testing Laboratory reports.

Automatic fall protection devices such as the (Company) products, are not specifically regulated in our General Industry or Construction Standards. Employees using the (company) products as automatic taut lifeline's installed to prevent a free fall of an employee to less than six inches appear to comply with the intent of OSHA's personal protective and life saving equipment requirements, provided the devices function at all times as indicated by the (City)Testing Laboratory reports.

A copy of this interpretation will be mailed to all OSHA Regional Administrators. The development of an instruction to the OSHA field staff regarding personal lifelines of the retracting reel locking type as they apply to existing lifeline standards does not appear necessary at this time.

RECORD ID 2070

STANDARD NUMBER 1926.104(d); 1926.104(c)
INFORMATION DATE 840612

ABSTRACT This interpretation letter addresses the evaluation of fall protection equipment. (Product) protection equipment meets the intent of 29 CFR. Although the lifeline has a break strength of only 3000 lbs instead of 5400 lbs as required by the standard, the device reduces any free-fall to a few inches.

(NOTE: This standard has not been amended since issuance.)

INTERPRETATION 29 CFR 1926.104(d); 1926.104(c)

June 19, 1984

This is in response to your letter of May 24, 1984, requesting consideration of your (product) as meeting the intent of the Occupational Safety and Health Administration (OSHA) Fall Protection Standards.

OSHA's standard 29 CFR 1926.104 calls for 5400-pound and 3/4-inch manila or 1/2 inch nylon lifelines where free falls of six feet are anticipated. However, you state that the (product) is designed to limit falls to inches, thereby avoiding the severe shock-loading of a six-foot fall impact.

Assuming that the device will function as indicated in your University Test Report dated August 5, 1982, a lifeline break strength of 3000 pounds would be satisfactory for the units. The units, when used according to the manufacturer's 1983 revised instructions, do meet the intent of OSHA's regulations.

SOURCE LETTERS

(No date provided.)

Retracting Lifeline Fall Arrest Devices Meeting the Intent of the OSHA Act.

Based on a recent refusal by the (State) Department of Labor, Bureau of Safety and Regulation, to accept Mr. B's letter of 1/17/83 (attached) concerning our (product) devices, I am requesting that you can determine and state that these devices do specifically meet the intent of the Occupational Safety and Health Act.

Although Mr. B's letter was accepted by the (state) and led to (state) approval along with our test report, the lack of acceptance in (state) has caused and is causing us severe problems in our interstate commerce with (state) resulting in rejection of many pieces of RTC equipment from at least one major employer in the State.

I can also state that since marketing this particular equipment from 1980, many hundreds of devices have been sold and used in all the States for the purpose of fall protection in lieu of 3/4" manila lifelines which often cannot meet the 5400 lb. strength requirement when a six-foot free fall is anticipated. The specific advantage of the (product) is the self-containment and taut lifeline which can reduce free falls to a few inches, thus requiring a lifeline strength of only 3000 lbs.

A particularly popular application has been the dual use as a confined entry lifeline and retrieval system for tanks and shafts which allows a buddy worker to lift his incapacitated co-worker without having to enter the confined area and thereby endanger himself.

These units have been successfully used in Europe since the mid-1950s for general industry and construction work. No problem to our knowledge has been found by our supplier or ourselves with regard to the reliability of the locking mechanism under diverse usage conditions including extreme cold at -30°C. (company) is responsible for these devices in the USA and changes are made to designs as required and (company) has been familiar with the characteristics of retracting lifeline devices since 1973.

(company) is responsible for quality control on the equipment when it is accepted from our supplier and when we recondition the devices. Our procedure is enclosed. The proper self-reeling of the equipment, efficient locking and absence of damage to any parts are important checks on the suitability of the devices for their intended purpose.

I have enclosed information on the testing of the (product) from University for your review.

Our instruction package #590 dated 6/83 is enclosed and is revised from time to time as new information becomes available.

For the purpose of inspection, it is our intention to add an inspection marker to the lower end of the cable signifying to the CSHO whether exposure to a heavy load stress has occurred even though the equipment can take many heavy drops without loss of arresting efficiency. We also currently ask for return of equipment annually (after the second year) for the purpose of (company) inspection and cable replacement if necessary.

This equipment we feel is necessary and useful for the purpose of fall protection and based on the 15-year experience of (company) in the field of fall arrest devices, we are vitally concerned with its proper use and maintenance and reliability for employee safety.

Therefore, after studying this information, we request that you consider the draft letter reply which I have enclosed for your consideration so that signed copy can be presented to the State of (state) for the purpose of their permitting a de minimis citation which will grant us relief from the present out-of-date standards confusion in (state) and resulting disruption to our interstate business.

January 17, 1983

This is in response to your recent inquiry requesting an interpretation of 29 CFR 1926.104.

29 CFR 1926.104 requirements for life-lines do not specifically regulate the manufacture of equipment such as your (product). However, section 1926.104 does regulate the installation and use of lanyard equipment.

The units, when used in accordance with the manufacturer's 1982 revised instructions, appear to meet the intent of the Occupational Safety and Health Act.

RECORD ID 4354

STANDARD NUMBER 1926.104(f); (c); (e); 105(a)
INFORMATION DATE 910516

ABSTRACT OSHA Standard 29 CFR 1926.104, Safety Belts, Lifelines, and Lanyards, has been in effect since May 29, 1971. The standard does not prohibit the use of a link chain as a safety lanyard. However, OSHA discourages such an application as injurious. If a chain is used as a lanyard, it must meet the tensile load requirement of 4,000 pounds as specified for all safety belt and lanyard hardware in 29 CFR 1926.104(f), and meet the hardware specifications of 29 CFR 1926.104(e). General contractors must ensure that appropriate protection is provided at sites under their control against the hazards of falling. However, OSHA regulations do not mandate who is responsible for the installation of special equipment, nor do they mandate that contractors supply and install safety nets whenever employees are exposed to the hazard of falling. General contractors may designate another party to be responsible for providing equipment to protect against falls, and safety nets are only one of a number of available options that can be used. However, safety nets are mandatory where workers are more than 25 feet above ground, water, or other surface and it is impractical to use other protective devices, (e.g., ladders, scaffolds, catch platforms, temporary floors, safety lines, or safety belts).

INTERPRETATION 29 CFR 1926.104(f); (c); (e); 105(a)

MAY 16, 1991

Dear Mr. S:

Thank you for your letter of February 1, 1991, concerning the use of link chains as lanyards and the general contractor's responsibility to supply safety nets to protect his workers. Please excuse the delay in response.

We note that you are from (State O) and are licensed in (State C). Both of these States operate under State Plan agreements with the Occupational Safety and Health Administration (OSHA). Therefore, you should also check their regulations as our Federal requirements may not be as extensive as their State Plan requirements. State regulations must be at least as effective as Federal regulations, however they can be more stringent.

In your letter you ask three questions:

1. ".....If these OSHA standards were in effect in Dec. '85, and Dec. '88."? (This question relates to the fall protection requirements.)
2. "May lanyards include link chains to connect clasps etc., rather than those called out on Section 1910 (1926)?"
3. "Is it mandatory for the general contractor to supply & install safety nets wherever it is practical to do so, to protect his workers?"

In reply to your first question, the OSHA standard, 29 CFR 1926.104, safety belts, lifelines, and lanyards, has been continuously in effect since May 29, 1971.

In reply to your second question, link chains should not be used as safety lanyards, or in place of the required hardware as called for in 29 CFR 1926.104(e) and (f). However, should a chain be used as a lanyard it would be required to meet the tensile load requirement of 4000 pounds as specified for all safety belt and lanyard hardware (Ref. 29 CFR 1926.104(f)). Additionally, such chains would be required to meet the hardware specifications of 29 CFR 1926.104(e).

Although the tensile load requirement specified for hardware is 4,000 pounds and appears to be less than the lanyard requirement of 5,400 pounds, it is not. Hardware is required to possess a yield strength of 4,000 pounds while lanyards are required to possess an ultimate strength of 5,400 pounds. (As you may recall, the ultimate strength of a material is that load at which the material fails (breaks), while the yield strength is the load at which, if exceeded, the material will take a permanent set or deformation. The values of yield or ultimate strength of a material differ significantly, but are both physical characteristics of any material.) A forged steel chain having a yield strength of 4,000 pounds would have an ultimate strength of more than 5,700 pounds and would be more than equivalent to the minimum lanyard requirement specified by the standard.

The standard at 29 CFR 1926.104 does not prohibit the use of a chain as a lanyard. However, OSHA discourages such an application of chain. Should a worker's fall be arrested by a chain, maximum arresting forces would be experienced by the individual and it can be anticipated that the individual is likely to suffer serious injuries.

In reply to your third question, it is not specifically mandated that general contractors supply and install safety nets. It is mandatory that contractors (employers) provide fall protection devices and/or equipment whenever and wherever employees are exposed to fall hazards. The use of safety nets is only one of a number of available options for fall protection that can be used (e.g., standard guardrails, safety lines and safety belts, catch platforms, etc.). However, safety nets are mandatory where workers are more than 25 feet above ground, water, or other surface and it is impractical to use other protective devices, (e.g., ladders, scaffolds, catch platforms, temporary floors, safety lines, or safety belts). 29 CFR 1926.105(a) A copy of the standard is enclosed.

General contractors are responsible for assuring that appropriate fall protection is used at sites under their control. However, OSHA regulations do not mandate who is responsible for the installation of special equipment (e.g., catch platforms or safety nets, etc.). The designation of the responsible party or parties is a responsibility of the general contractor.

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DOE Interpretations Guide to OSH Standards

July 1,1992

RECORD ID

D930227a

STANDARD NUMBER
INFORMATION DATE

29 CFR 1926.104(b); (d)
930318

ABSTRACT

This interpretation letter addresses the fall protection tie off requirements contained in the DOE-adopted Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1926.104.

INTERPRETATION

29 CFR 1926.104(b); (d)

This interpretation is in response to a February 24, 1993, request from a DOE Site Office requesting clarification of the requirements dealing with employee fall protection. Specifically, the requestor wanted to know, "What are the requirements for tie off devices being used by persons performing structural steel erection and is a knot in a rope equivalent to metal snap-type connectors?"

29 CFR 1926.104(b) states that "Lifelines [i.e. the rope to which a safety belt or lanyard is attached] shall be secured above the point of operation to an anchorage or structural member capable of supporting a minimum dead weight of 5,400 pounds".

29 CFR 1926.104(d) requires that the "Safety belt lanyard shall be a minimum of 1/2-inch nylon, or equivalent, with a maximum length to provide for a fall of no greater than 6 feet. The rope [i.e. lanyard] shall have a normal breaking strength of 5,400 pounds." Therefore, the tie off device must be able to support 5,400 pounds.

Tying knots in ropes used for a fall protection system is not permitted since this can reduce the effective breaking strength of the line by up to 50%, and most systems are not designed to accommodate for this reduction. Further, there is no practical way to test such a modification to assure that every time a knot is made that a breaking strength of 5400 pounds is still maintained. In addition, the potential for sharp edges impinging on the knot exist and this could cause the rope to fail.

RECORD ID 91120203

STANDARD NUMBER 1926.104 (d), (a); 1926.251 (d)(2)(v)
INFORMATION DATE 19911202

ABSTRACT An interpretation letter regarding fall protection equipment and if knots are permitted in rope lanyards used for rigging. Knots are not prohibited in lanyards and safety lines used for fall protection

INTERPRETATION 29 CFR 1926.104 (d), (a); 1926.251 (d)(2)(v)

December 02, 1991

Dear Mr. L:

Your September 11 letter to Mr. G. F. requesting an interpretation of the Occupational Safety and Health Administration (OSHA) requirements addressing fall protection equipment has been referred to the Office of Construction and Maritime Compliance Assistance for reply. I apologize for the delay in responding to your inquiry.

In regard to the use of knots in rope lanyards and rigging used for fall protection, please be advised that knots are not prohibited in lanyards and safety lines used for fall protection. However, OSHA does not recommend their use since they can reduce the effective breaking strength of the line by up to 50 percent. If the fall protection system is designed to accommodate this reduction in strength, knots, such as bowlines, can be used.

Please be advised that Section 1926.251(d)(2)(v) does prohibit the use of knots in lieu of splices in natural and synthetic fiber rope slings used for handling materials.

If we can be of any further assistance, please contact Mr. R. F. G. or D. R. C. of my staff at (202) 523-8136.

OSHA Instruction STD 3-3.1

JUL 18, 1983

Subject: Fall Protection in Construction; 29 CFR 1926.28(a) and 29 CFR 1926.105(a)

- A. Purpose.** This instruction clarifies the meaning of 29 CFR 1926.28(a) and 1926.105(a) as they apply to the protection of employees exposed to falling hazards in the construction industry.
- B. Scope.** This instruction applies OSHA-wide
- C. Reference** OSHA Instruction STD 3-13.1, October 30, 1978, originally issued January 31, 1978.
- D. Action** Regional Administrators and Area Directors shall ensure that the interpretative guidelines given in this instruction are adhered to when inspecting construction sites where employees are exposed to falling hazards not covered under more specific standards.
- E. Federal Program Change.** This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:
 - 1. Ensure that this change is promptly forwarded to each State designee.
 - 2. Explain the technical content of this change to the State designee as requested
 - 3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the States plan to implement the change or of the reasons why the change should not apply to that State.
 - 4. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections and case file reviews) shall also be used to determine if this change has been implemented in actual performance.
- F. Background.** The construction industry, although employing only about 5 percent of the work force, accounts for about 20 percent of occupational fatalities occurring annually in the United States. Of these fatalities, approximately 25-30 percent are the result of falls from elevated locations.
 - 1. OSHA has numerous standards designed to prevent such accidents. Some of these standards apply to specific situations and contain specific requirements, such as for guardrails on open-sided floors or on scaffolds, the use of ladders to gain access to elevated locations, and, for particular operations, the use of safety belts (1926.700(b)(1)) or of solidly planked flooring (1926(b)(2)(i)).
 - 2. There are many situations, however, not covered by specific standards. For these, general standards must be used. For this reason 29 CFR 1926.28(a) and 1926.105(a) have become among the most frequently cited standards. The requirements of these two general standards are as follows:
 - a. 1926.28(a) requires the use of appropriate personal protective equipment whenever employees are exposed to hazardous conditions.
 - b. 1926.105(a) requires that employees exposed to falls of more than 25 feet be protected by safety nets whenever protection by other means (identified in the standard) is impractical.
 - 3. OSHA believes that the meaning of applicability of these standards have been clarified through its enforcement policies and by consistent and authoritative interpretation of these standards by the Occupational Safety and Health Review Commission.
 - 4. Several United States Courts of Appeals, however, have vacated citations under these two standards on the grounds that the standards fail to provide employers with adequate notice of

OSHA Instruction STD 3-3.1 (cont.)

what they must do to comply with the Act. These decisions have not been uniform, however, and do not establish consistent enforcement guidelines. A recent decision, recognizing this lack of consistency, suggested that OSHA promulgate new standards on the matter or issue an instruction clarifying the requirements of the present standards. In keeping with the Court's recommendation, this OSHA Instruction is being issued.

G. Guidelines. The following interpretative guidelines are established for the use of 29 CFR 1926.28(a) and 1926.105(a)

1. 1926.28(a). OSHA interprets this standard to mean that employers are required to ensure that employees wear and use safety belts to protect them from falling when exposed to falls from heights of 10 feet or more or from heights below 10 feet under certain particularly hazardous circumstances such as those described in G.1.b.
 - a. A reasonably prudent employer in the construction industry would recognize a hazard warranting the use of safety belts whenever an employee is exposed to a fall of 10 feet or more.
 - b. The same employer would also recognize a hazardous situation warranting the use of a safety belt even if the potential fall distance is less than 10 feet, such as when employees are working over machinery, moving equipment, or objects posing an impalement hazard.
 - c. OSHA believes that requiring fall protection under 1926.28(a) at 10 feet or more is consistent with other fall protection provisions in the construction regulations, e.g., 1926.451, where guardrails are generally required for scaffold platforms above 10 feet, and 1926.500, where guardrails are generally required for fall distances of 6 feet or more.
 - d. Safety belts generally are not required for heights of less than 10 feet under 1926.28(a) due to the need for maneuverability and the common use of safety belts with a 6-foot lanyard.
2. 1926.105(a) OSHA interprets this standard to mean that, when employees are exposed to falls of over 25 feet, the employer is required either to provide a safety net or to enforce the use of other safety devices listed in the standard, as appropriate, for the protection of exposed employees.
 - a. The requirements of the standard are met only if use of one of the listed devices provide adequate fall protection to employees. Thus, for example, use of a catch platform does not satisfy the standard if employees are still exposed to a fall when working on or adjacent to the platform.
 - b. 1926.105(c) sets forth the requirements which must be met if the employer chooses to use netting for employee protection.
3. Relationship Between 1926.28(a) and 1926.105(a). In general, construction falling hazards of 10 through 25 feet not covered by a specific standard are governed by 1926.28(a) while those of more than 25 feet are addressed by 1926.105(a).
 - a. Falling Hazards to the Interior of Buildings. The application of these standards to falling hazards to the interior of buildings shall be governed by the following principles:
 - (1) In the structural steel construction of tiered buildings, 1926.28(a) shall be cited in situations in which employees are exposed to falls of 10 to 25 feet. When employees are exposed to falls of more than 25 feet (or 30 feet when the employer has failed to comply with the flooring requirements of 1926.750(b)(2)(i)), the appropriate steel erection flooring requirements standard shall also be cited.

OSHA Instruction STD 3-3.1 (cont.)

- (2) In other types of construction 1926.28(a) shall be cited for falling hazards of 10 through 25 feet. For falling hazards of more than 25 feet 1926.105(a) shall be cited as the more specific standard. Correction of a 1926.105(a) violation can be accomplished by any of the methods listed in the standard as long as employees are adequately protected from falls.
- b. **Falling Hazards to the Exterior of Buildings.** For all types of construction, including steel erection, exterior falling hazards shall be cited under 1926.28(a) when the potential falling distance is 10 through 25 feet under 1926.105(a) when the potential falling distance is greater than 25 feet.
- 4. **Impossibility and Greater Hazard.** OSHA, in recognition of long-standing Review Commission and court precedent, has acknowledged in the past and continues to acknowledge that there are affirmative defenses which excuse the employer from a violation which has otherwise been proved. (See FOM, Chapter V,E.)
 - a. The employer may establish a defense when certain specific conditions exist. The conditions are as follows:
 - (1) If compliance with the standard is either impossible or more hazardous than non-compliance; and
 - (2) There is no alternative means of protecting employees; and
 - (3) A variance would be inappropriate.
 - b. If it is apparent that compliance with a standard would meet the conditions in subparagraph a, a citation shall not be issued.
 - c. OSHA considers it to be the employer's responsibility to demonstrate that the conditions are met. At the same time the CSHO shall attempt to gather contrary evidence in accordance with the guidelines in the FOM, Chapter V,E.2.

RECORD ID 2106

STANDARD NUMBER 1926.105(a)
INFORMATION DATE 840926

ABSTRACT This interpretation letter responds to an inquiry from Mr. T, State OSHA regarding STD 3-3.1, fall protection devices (1926.105(a).)

INTERPRETATION 29 CFR 1926.105(a)

September 26, 1984

After contacting the National Office, 1926.105(a) shall be cited for falls over 25 feet. In reading paragraph G(2)(a) of STD 3-3.1, any devices listed in 105(a) are adequate fall protection devices for abating the hazard, although that is not the exact language of the standard.

RECORD ID

92091801

STANDARD NUMBER
INFORMATION DATE

1926.105(a); 1926.12(c); (b); 1926.750(b)(2)(i)
19920918

ABSTRACT

This letter regards fall protection during steel erection and the application to the construction industry. Standards regarding falls to the interior and exterior of a structure are addressed. Also addressed is the general duty clause and its applicability to fall hazards. Employers who create or control a violent condition are liable according to OSHA's interpretation.

INTERPRETATION

29 CFR 1926.105(a); 1926.12(c); (b); 1926.750(b)(2)(i)

September 18, 1992

Dear Mr. M:

This is in response to your April 1 letter requesting interpretations of Occupational Safety and Health Administration (OSHA) standards addressing fall protection during steel erection and the applicability of 29 CFR 1926 Subpart B to the construction industry. I apologize for the delay in responding to your inquiry.

The steel erection standard at 1926.750(b)(2)(i), which requires a tightly planked and substantial floor within two stories or 30 feet, whichever is less, below structural steel workers, addresses only falls to the interior of the structure. Fall hazards to the outside of a structure, therefore, may be cited under 1926.105(a) provided that the fall distance is greater than 25 feet. If the fall distance is less than 25 feet, exterior fall hazards can be cited under the general duty clause (Section 5(a)(1)) of the Occupational Safety and Health Act, if OSHA can establish the following four elements: (1) the workplace was not free of a hazard, (2) the hazard was "recognized" by the employer, his industry or safety experts familiar with the industry, (3) the hazard was causing or likely to cause death or serious physical harm should an accident occur, and (4) there was feasible and useful means to eliminate or substantially reduce the hazard.

If the fall hazard is to the interior of a structure, the situation is governed by 1926.750(b)(2)(i), which does not call for personal protective equipment such as body belts or harnesses even though the fall distance may be up to 30 feet. An appellate court decision, however, suggests that the general duty clause could also be cited in such situations,

"if an employer knows a particular safety standard is inadequate to protect his workers against the specific hazard it is intended to address, or that the conditions in his place of employment are such that the safety standard will not adequately deal with the hazards to which his employees are exposed, he has a duty under section 5(a)(1) to take whatever measures may be required by the Act, over and above those mandated by the safety standard, to safeguard his workers. In sum, if an employer knows that a specific standard will not protect his workers against a particular hazard, his duty under section 5(a)(1) will not be discharged no matter how faithfully he observes that standard." General Dynamics Land Systems Division (815 F.2d 1570, 1577).

OSHA will, therefore, look for employer awareness that falls of less than 30 feet can cause serious injury. Such awareness might be demonstrated, for example, through the employer's knowledge of his own or his industry's injury experience related to interior falls.

You have also asked about the applicability of 1926.16, "Rules of Construction," which is found in Subpart B of 29 CFR Part 1926. As is explained at 29 CFR 1910.12(c), Subparts A and B of Part 1926 have specific reference only to section 107 of the Contract Work Hours and Safety Standards Act (the Construction Safety Act). Subparts A and B are included in Part 1926 because OSHA may enforce them under the Construction Safety Act, but those subparts were not adopted as Occupational Safety and Health (OSH) Act standards and therefore have no direct bearing on enforcement of the OSH Act.

Although 1926.16 does not apply beyond federally funded worksites, you should be aware that for purposes of OSH Act enforcement, OSHA does interpret employer liability to extend to employers who create or control a violative condition as well as to employers whose employees are exposed to such conditions. The enclosed pages from OSHA's Field Operations Manual will more fully explain this enforcement policy.

If we can be of any further assistance, please contact Mr. R. F. G. or Mr. D. R. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523- 8136.

RECORD ID

92020402

**STANDARD NUMBER
INFORMATION DATE**

**1926.105 (a);1926.750 (b)(1)(ii), (b)(2)(i)
19920204**

ABSTRACT

An interpretation letter regarding fall protection requirements for steel erection activities and temporary flooring, other than 29 CFR 1926.105 (a), there are no specific fall protection provisions or exemptions, outside Subpart R, that apply to steel erection connection-related activities. The general duty clause is the only provision that can be cited for steel erection fall hazards where the fall distance is less than 25 feet. OSHA views the practice of "scooting" or "cooning" (wrapping lanyard around a beam) acceptable.

INTERPRETATION

29 CFR 1926.105 (a);1926.750 (b)(1)(ii), (b)(2)(i)

February 04, 1992

Dear Mr. R:

This is in response to your letters of July 8 and August 27, concerning the Occupational Safety and Health Administration (OSHA) policy regarding fall protection requirements for steel erection activities. We apologize for the delay in responding to you.

With regard to your questions number 1 through 4, we have been advised by the Office of the Solicitor that Review Commission cases have determined that, other than 29 CFR 1926.105(a), there are no specific fall protection provisions or exemptions, outside Subpart R, that apply to steel erection connection-related activities. Consequently, the general duty clause is the only provision that can be cited for steel erection fall hazards where the fall distance is less than 25 feet. To assist in establishing the existence of the necessary four elements of a (5)(a)(1) citation, the National Office is developing an information package for use by all regions. Although not complete at this time, the information that has been compiled indicates that abatement methods can include the use of properly guarded aerial scaffolds and similar platforms, lifts, ladders, nets, or body belt/harness systems.

With regard to question 5, 29 CFR 1926.750(b)(2)(ii) states that where it is not practical to maintain a "tightly planked" (i.e. temporary) floor within two stories or 30 feet of locations where work is performed, then 29 CFR 1926.750(b)(1)(ii) applies and nets or scaffolds are required. Stated another way, where a temporary floor is maintained within two stories or 30 feet of such locations then 29 CFR 1926.750(b)(1)(ii) does not apply, and nets or scaffolds are not required.

With regard to questions 6 and 7, "scooting" or "cooning" the beam with a lanyard wrapped around the beam is an acceptable practice, as is the practice of wrapping lanyards around beams as tie off points.

With regard to question 8, OSHA Instruction STD 3-3.1 is being reviewed in light of the advice received from the Office of the Solicitor and the policy discussed above in response to questions 1-4.

If you need further assistance, please call Mr. R. G. or Mr. D. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

SOURCE LETTERS

August 27, 1991

The attached letter was faxed and a copy was mailed to you last month. To date, I have not received a response to my request for clarification of OSHA 29 CFR, Part 1926. If possible, please provide me with answers to the questions I raised. However, if your office is not the appropriate one to supply such information, please furnish the name and telephone number of the person I should contact.

Any assistance you can give me would be appreciated.

If you have any questions, please call me at (803) 557-7902.

July 8, 1991

This is a follow-up to our recent conversation regarding the subject topic. I would appreciate your providing some additional information in the form of responses to the questions on the two-page attachment.

If your group is not the appropriate one to provide the information, please forward to the applicable OSHA organization.

As you are aware, there have been differing opinions regarding the interpretation of 1926, Subpart R and we are attempting to clarify information for contractors for which my organization provides safety oversight.

We are attempting to enforce the OSHA regulations in a consistent manner and would like to have the most current information available.

Any help you can provide on this subject would be appreciated.

If you have any questions, please contact me at (803)557-5702 or 557-7840.

OSHA - 29 CFR PART - 1926 SUBPART R - STEEL ERECTION

1. Is it considered acceptable "industry practice" for steel erector employees to be permitted to "walk the beams" without fall protection?

Is there a specific regulation or directive used? If so, please provide the particular reference.

2. Are steel erector connectors permitted to be without secured fall protection when in the process of receiving a column or beam from a crane load line up until the point two bolts are installed?

Is there a specific regulation or directive used? If so, please provide the particular reference.

3. Are employees other than connectors required to have fall protection 100% of the time regardless of height?

Is there a specific regulation or directive used? If so, please provide the particular reference.

4. Does OSHA consider employees landing decking bundles and setting decking in place to be connectors and permitted "relaxation" of fall protection requirements?

Is there a specific regulation or directive used? If so, please provide the particular reference.

5. If steel erectors provide temporary flooring at 30 foot intervals, does that nullify the requirement for the use of nets when workers are exposed to a fall potential in excess of 25 feet? This refers to some contractors' position that 1926.750(b)(1)(ii) does not apply if the contractor installs temporary floors as stipulated in .750(b)(2)(i).

Is there a specific regulation or directive used? If so, please provide the particular reference.

6. Some contractors utilize the practice of having their employees sit on a beam with the safety belt lanyard wrapped around the beam and "scoot" along the beam for access or to go from "point A to point B" on a beam during structural steel erection.

Is this considered an acceptable practice?

Is there a specific regulation or directive used? If so, please provide the particular reference.

7. What is OSHA's position on employees wrapping their lanyards around beams as a tie off point?

Is there a specific regulation or directive used? If so, please provide the particular reference.

8. Is OSHA Instruction STD 3-3.1 applicable to steel erection?

Some contractors maintain that only the portion dealing with exterior fall hazards is applicable to steel erection and they use this to justify their employees not being required to tie off at heights of between 10 and 25 feet and in some cases up to 30 feet based on interpretations of .750(b)(2)(i)

June 28, 1991

Dear Mr. D.:

This is in response to your letter dated June 27, 1991 regarding the implementation of OSHA Construction standard 29 CFR 1926.750 at the B Area Engineering Center, Savannah River Site. We understand this is a tiered structure.

In order to answer your letter, we believe it is appropriate to give you some background information on 29 CFR 1926.750. A number of court decisions, to mention D v. DM & S Company (U.S. Court of Appeals for the First Circuit - OSAHRC Docket No. 84-1758, June 4, 1985), have stated that 29 CFR 1926.750 (b)(1)(ii) is not "specifically applicable" to exterior fall hazards. LAB of the Technical Support staff confirmed this to you in a telephone conversation on June 28th. According to the facts stated in your letter, it appears that you are meeting the intent of the standard as far as fall protection to the interior is concerned since you are temporarily decking as mandated by 29 CFR 1926.750(b)(2)(i) and using a static line system.

On the other hand, the Circuit Court also determined that 29 CFR 1926.105(a) regarding use of safety nets or their equivalent 25 feet or more above the ground is not pre-empted by standards found in Subpart R (Steel Erection) of 29 CFR 1926. In other words, they can be applied independently. In your particular case, 29 CFR 1926.105(a) applies to exterior fall hazards. Again, reviewing the

facts addressed in your letter, it appears that you have also met the intent of this standard concerning fall protection to the exterior of the structure by providing static lines as a means of tie-off for employees traveling across the exterior beams.

If you have further questions, please contact Mr. B. at (404) 347-2281.

June 27, 1991

Dear Sir:

Our firm is currently engaged to provide SSE and MD installation on the referenced project.

We are fully implementing CFR 29, 1926.750 as regards safety procedures as this is a 3 story steel frame structure with floor heights of 14 feet.

The procedure we wish to use, based on our interpretation of this regulation, is as follows:

1. Stand columns and install 2nd floor beams (at 14 feet above ground).
2. Install 3rd floor beams (at 28 feet above ground).

Note: All personnel working above ground are required to wear safety belts and lanyard. Personnel are required to tie off whenever they are immobile. Temporary decking is installed to provide interior fall protection prior to any work above 30 feet.

Static lines are installed immediately at exterior conditions where fall hazards exceed 25 feet. These are 1/2 inch wire rope lines attached to exterior columns 42 inches above the floor level at the third floor (23 feet above ground) and at 26 inches below floor level at the roof elevation (42 feet above ground). These lines are installed as soon as exterior framing is connected to allow personnel needing to work at the building edge to tie off even when traveling across the exterior beams. Connectors working to install either the exterior beams or the static lines will tie off to exterior columns since all columns are one piece continuous steel and are secure after tie in of second floor steel.

It is our understanding that using this procedure on this type structure is fully in compliance with OSHA requirements for SE (to include deck installation).

Please advise us if you agree or in any way disagree with this.

I appreciate your time and request a response as soon as possible. If you have any questions, please call me at 404-487-4922. You may fax your response to 404-689-6981.

RECORD ID 92052101

STANDARD NUMBER 1926.105 (a); 1926.28 (a)
INFORMATION DATE 19920521

ABSTRACT An interpretation letter regarding employees working at heights greater than 25 feet where no fall protection is provided. If a hazard is addressed by another standard, such as 1926.105 for a fall greater than 25 feet, the other standard should be cited.

INTERPRETATION 29 CFR 1926.105 (a); 1926.28 (a)

May 21, 1992

This is in response to your March 20 memorandum requesting the appropriate section to be cited when employees are working at heights greater than 25 feet and no fall protection is provided. I apologize for the delay in responding to your inquiry.

Recent court cases and court of appeals decisions have not changed OSHA's policy on the use of 1926.28(a). If a hazard is addressed by another standard, such as 1926.105 for a fall greater than 25 feet, the other standard should be cited. The December 21, 1987, memorandum establishing this policy is attached.

In regard to your November 20 memorandum, please be advised that it is nearing finalization and will be forwarded to you as soon as possible.

RECORD ID 93052001

STANDARD NUMBER 1926.105 (a); 1926.750 (b)(2)(i)
INFORMATION DATE 19930520

ABSTRACT An interpretation letter regarding fall protection for workers engaged in steel erection. OSHA has no specific fall protection exemptions or provisions, other than 1926.105(a), outside Subpart R of Part 1926 that apply to steel erection-connection related activities. Consequently, 1926.105(a) is the appropriate provision to be cited for steel erection fall hazards where the fall distance is more than 25 feet and the use of ladders, scaffolds, catch platforms, temporary floors, safety lines, or safety belts is impractical. If the fall distance is less than 25 feet exterior fall hazards can be cited under the general duty clause (Section 5 (a)(1)) of the Occupational Safety and Health Act.

INTERPRETATION 29 CFR 1926.105 (a); 1926.750 (b)(2)(i)

May 20, 1993

Dear Mr. M:

This is in response to your March 2 letter requesting the Occupational Safety and Health Administration (OSHA) policy regarding fall protection for workers engaged in steel erection. I apologize for the delay in responding to your inquiry.

As a result of Occupational Safety and Health Review Commission decisions, OSHA has no specific fall protection exemptions or provisions, other than 1926.105(a), outside Subpart R of Part 1926 that apply to steel erection-connection related activities. Consequently, 1926.105(a) is the appropriate provision to be cited for steel erection fall hazards where the fall distance is more than 25 feet and the use of ladders, scaffolds, catch platforms, temporary floors, safety lines, or safety belts is impractical.

The steel erection standard at 1926.750(b)(2)(i), which requires a tightly planked and substantial floor within two stories or 30 feet, whichever is less, below structural steel workers, addresses only falls to the interior of the structure. Fall hazards to the outside of a structure, therefore, may be cited under 1926.105(a) provided that the fall distance is greater than 25 feet. If the fall distance is less than 25 feet, exterior fall hazards can be cited under the general duty clause (Section 5(a)(1)) of the Occupational Safety and Health Act, if OSHA can establish the following four elements: (1) the employer failed to keep the workplace free of a hazard to which employees were exposed; (2) the hazard was "recognized" by the employer, his industry or safety experts familiar with the industry; (3) the hazard was causing or likely to cause death or serious physical harm should an accident occur; and (4) there was feasible and useful means to eliminate or substantially reduce the hazard.

If the fall hazard is to the interior of a structure, the situation is governed by 1926.750(b)(2)(i), which does not call for personal protective equipment such as body belts or harnesses even though the fall distance may be up to 30 feet. An appellate court decision, however, suggests that the general duty clause could also be cited in such situations,

"if an employer knows a particular safety standard is inadequate to protect his workers against the specific hazard it is intended to address, or that the conditions in his place of employment are such that the safety standard will not adequately deal with the hazards to which his employees are exposed, he has a duty under Section 5(a)(1) to take whatever measures may be required by the Act, over and above those mandated by the safety standard, to safeguard his workers. In sum, if an employer knows that a specific standard will not protect his workers against a particular hazard, his duty under Section 5(a)(1) will not be discharged no matter how faithfully he observes that standard." GDLS Division (815 F.2d 1570, 1577).

OSHA will, therefore, look for employer awareness that falls of less than 30 feet can cause serious injury. Such awareness might be demonstrated, for example, through the employer's knowledge of his own or his industry's injury experience related to interior falls. Employer awareness might also be demonstrated, for example, through employer knowledge that the use of fall protection devices such as safety lines, or safety belts would provide employee protection against particular fall hazards in such situations.

If we can be of any further assistance, please contact me or Mr. D. C. of my staff at (202) 219-8136.

SOURCE LETTER

March 2, 1993

Dear Ms. C:

I am requesting any information your department or agency has regarding OSHA's current policy as to fall protection for workers engaged in steel erection.

If you have any questions regarding this request please don't hesitate to contact the undersigned. Thank you for your attention.

RECORD ID 1431

STANDARD NUMBER 1926.152(a); 1910.106(a)(17); 1910.5(c)(1)
INFORMATION DATE 770906

ABSTRACT This interpretation letter addresses 1926.152 as it applies to (product). 1926.152 only covers materials which have a fluidity greater than that of 300 penetration asphalt when using the ASTM Test for Penetration of Bituminous Materials.

(NOTE: Even though the interpretation letter was written in 1976, the cross-reference to 1910.106(a)(17) remains valid (see 1990 edition of 29 CFR).)

INTERPRETATION 29 CFR 1926.152(a); 1910.106(a)(17); 1910.5(c)(1)

September 6, 1977

This is in response to your letter dated March 23, 1977, and confirms a recent telephone conversation with a member of my staff. Your letter concerned 29 CFR 1926.152 as it applies to (product)

Subpart F of 29 CFR 1926 does not contain a definition of "liquid", therefore, in following 29 CFR 1910.5 and Chapter VIII of the Field Operations Manual you should go to 29 CFR 1910.106(a)(17) which defines "liquid" as:

...any material which has a fluidity greater than that of 300 penetration asphalt when tested in accordance with ASTM Test for Penetration for Bituminous Materials, D-5-65.

The definition would exempt (product) from coverage by 29 CFR 1926.152 if the penetration of this material is in the 70 to 90 range.

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DOE Interpretations Guide to OSH Standards

July 1, 1992

RECORD ID 92062402

STANDARD NUMBER 1926.200(h)(1)
INFORMATION DATE 19920624

ABSTRACT A letter requesting a clarification of the OSHA policy for warning tags on scaffolds. Presently, there is no requirement that warning tags be placed on all scaffolds while they are being erected. Although there are instances where such tags are appropriate and a citation under 29 CFR 1926.200(h)(1) could be issued, there are also many instances where such would not be appropriate. An example of the latter is where a large scaffold is being built in phases or sections, employee access to the completed sections of the scaffold would not be prohibited. A tag which limits access to erection and disassembly crews on that portion of a scaffold being changed could be appropriate but a case by case determination is necessary.

INTERPRETATION 29 CFR 1926.200(h)(i)

June 24, 1992

Dear Mr. P:

This is in response to your April 6 letter requesting a clarification of the Occupational Safety and Health Administration policy for warning tags on scaffolds. I apologize for the delay of this response.

Presently, there is no requirement that warning tags be placed on all scaffolds while they are being erected. Although there are instances where such tags are appropriate and a citation under 29 CFR 1926.200(h)(1) could be issued, there are also many instances where such would not be appropriate. An example of the latter is where a large scaffold is being built in phases or sections, employee access to the completed sections of the scaffold would not be prohibited. A tag which limits access to erection and disassembly crews on that portion of a scaffold being changed could be appropriate but a case by case determination is necessary.

I believe this is what the compliance officers meant when they indicated to you that they are in agreement and "might even use 200(h)(1) for a citation if the situation warranted".

If you have further questions, please contact Mr. R. G. or Mr. D. C. of my staff in the office of Construction and Maritime Compliance Assistance at (202) 523-8136.

SOURCE LETTERS

April 6, 1992

Dear Mr. G,

I am writing to introduce myself and ask for a clarification on an issue.

I teach courses in Scaffolding Safety to various contractors, industrial plants and other scaffolding users.

One of the issues that frequently comes up in class is that of putting a tag on the scaffold. My recommendations to our students is that a warning tag be placed on the scaffold while it is being erected because it is only partially complete and may not have all appropriate safety features installed.

After the scaffold is complete and final inspection is done, I recommend that a green "OK" tag or some other type of sign off sheet be placed on the scaffold to indicate that it is ready for use.

This is a widely accepted practice in industrial plants and tagging systems (including warning tags) are available from a variety of sources.

Many students ask me, "Is this required by OSHA?"

My answer is yes. My explanation is that 29 CFR 1926.200(h)(1) requires warning tags to be placed on any existing hazard such as a defective tool or equipment. A partially erected scaffold may not have guardrails, or ladders, and be properly tied or be fully planked. Therefore, it would be a hazard and fall under the defective equipment category until the scaffold is completed and all safety features installed. Consequently, a warning tag should be used.

Several compliance officers I have discussed this with have indicated that they are in agreement and might even use 1926.200(h)(1) for a citation if the situation warranted.

However, since my students like to see clarifications in black and white, I would appreciate a written response from your office.

Thank you for your time.

RECORD ID 4337

STANDARD NUMBER 1926.201(a)(4); 1926.651(d)
INFORMATION DATE 910204

ABSTRACT 29 CFR 1926.201(a)(4) and 1926.650(f) require that flag men be provided with and wear red or orange warning garments while flagging. Warning garments at night are to be of reflectorized material. Employees exposed to vehicular traffic shall be provided with and instructed to wear warning vests marked with or made of reflectorized or high-visibility material. OSHA does not approve or recommend products.

INTERPRETATION 29 CFR 1926.201(a)(4); 1926.651(d)

FEB 4 1991

Dear Mr. A:

This is in response to your letter of January 3, requesting to know if your garment would meet the standards of the Occupational Safety and Health Administration (OSHA)

We wish to bring to your attention the following provisions of the construction regulations at 29 CFR 1926.201(a)(4) and 1926.651, respectively. "Flag men shall be provided with and shall wear a red or orange warning garment while flagging. Warning garments worn at night shall be of reflectorized material." "Employees exposed to vehicular traffic shall be provided with and shall be instructed to wear warning vests marked with or made of reflectorized or high visibility material." A copy of the portions of the standards, noted above, are enclosed.

It appears that your vest would comply with the intent of the above OSHA standards. However, OSHA does not approve or recommend products. Therefore, this letter does not endorse or approve your product.

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DOE Interpretations Guide to OSH Standards

July 1, 1992

OSHA Instruction STD 3-6.1

**OCTOBER 30, 1978
OSHA PROGRAM DIRECTIVE #100-77**

Subject: 29 CFR 1926.250(b)(1), Material Storage--As Related to Interim Storage of Temporary Flooring Used in Steel Erection

1. Purpose

The purpose of this directive is to clarify the application of 29 CFR 1926.250(b)(1), Material storage, as related to temporary flooring.

2. Documentation Affected

This directive supersedes Field Information Memorandum #74-85 dated October 22, 1974.

3. Background

Contractors have been cited under 29 CFR 1926.250(b)(1), when temporary flooring, in use during skeleton steel construction in tiered buildings, is bundled and placed over the edge of outer periphery while waiting to be picked up by a crane or derrick for movement to another tier.

4. Action

a. The temporary flooring is, in fact, in-process equipment--not stored material, covered under the provisions of Subpart R--Steel Erection, 29 CFR 1926.750. Temporary flooring not actually in use and placed in an area on the jobsite for an indefinite time would be considered as stored material, 29 CFR 1926.250(b)(1).

b. The temporary flooring, when not in use as a floor, shall be properly bundled and braced to prevent movement until ready for use at the next tier.

c. While process temporary flooring is being bundled, braced, picked or placed, all other applicable standards for employee protection shall be enforced.

5. Effective Date

This directive is effective immediately and will remain in effect until canceled or superseded.

OSHA instruction STD 3-6.2
October 30, 1978

Jan. 31, 1978

OSHA PROGRAM DIRECTIVE #100-78

Subject: 29 CFR 1926.250(b)(1), Material Storage--As Related To Interim Storage of concrete Forms and Shoring Between Placements

1. Purpose

The purpose of this directive is to clarify the application of 29 CFR 1926.250(b)(1), Material storage, as related to concrete forms and shoring.

2. Documentation Affected

This directive supersedes Field Information of the National Office #74-86 dated October 22, 1974.

3. Background

It has been brought to the attention of the National Office that contractors have been cited under 29 CFR 1926.250(b)(1) when lumber normally used as concrete forms and shoring is bundled and stockpiled within 10 feet of an exterior wall which does not extend above the top of the material stored.

4. Action

a. The equipment used for shoring of newly placed concrete (forms, shoring jacks, clamps, steel rods or pipes, base plates and other items that are in use) is "equipment" subject to the standards contained in Subpart Q, 29 CFR 1926.700, 701 and 702. "Material storage" as defined in 29 CFR 1926.250(b)(1) does not apply except in a static situation.

b. When stripped forms and shoring are bundled and placed within close proximity to an open-sided floor (in order to preclude a "sidepick" by a crane), for movement to another tier for placement, it must be considered as in-process equipment. During routine operations, all normal safety precautions shall be taken. When the bundles are to be left overnight or for a longer period of time, they shall be anchored and braced in such a manner to prevent displacement in any direction. All periphery guards shall be in place except when the bundles are actually being removed through the opening.

c. Equipment of this type, not actually in use as process equipment and positioned on the jobsite for an indefinite period of time, would be covered under 29 CFR 1926.250(b)(1), Material storage.

d. The application of these standards depends on the specific conditions, as stated in the preceding paragraphs, found by the CSHO at the time of the inspection.

5. Effective Date

This directive is effective immediately and will remain in effect until canceled or superseded.

RECORD ID 2055

STANDARD NUMBER 1926.251(c)(4); (c)(4)(III); (c)(5)
INFORMATION DATE 750307

ABSTRACT The prohibition against wire rope clips or knots for forming eyes in wire rope bridles, slings, or bull wire does not apply to U-bolt wire rope clips used to form eyes on running ropes or on cranes. Table H-20 of the standard shall be used.

(NOTE: This standard has not been amended since it was issued.)

INTERPRETATION 29 CFR 1926.251(c)(4); (c)(4)(III); (c)(5)

March 7, 1975

The Assistant Secretary has asked me to respond to your letter dated February 11, 1975, requesting a permanent variance from Section 1926.251(c)(4)(III) Rigging Equipment for Material Handling - Wire Rope, of the Occupational Safety and Health Regulations for Construction.

The requirements of the above standard are, "Eyes in wire rope bridles, slings, or bull wire shall not be formed by wire rope clips or knots." You have stated that in your operation the frequent changing of the reeving and working tools precludes the use of a spliced or wedged eye on the running ropes of your crawler cranes.

It appears from the information supplied by you that prohibiting the use of wire clips in forming eyes in wire ropes, applies to the bridles and slings used and not to the running ropes on your cranes. In this regard please note Section 1926.251(c)(5) that states, "When U-Bolt wire rope clips are used to form eyes, Table H-20 shall be used to determine the number and spacing of clips." A copy of Part 1926 is enclosed for your guidance.

We recommend that the inspections required by 1926.251(a)(1) be rigidly enforced.

Since your need for a variance appears moot, no further action will be taken on your application.

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DOE Interpretations Guide to OSH Standards

July 1, 1992

RECORD ID 1772

STANDARD NUMBER 1926.302(a)(1); 1926.449
INFORMATION DATE 861212

ABSTRACT This interpretation letter clarifies the 1926.302 requirement that all electrical conductors and equipment shall be of the approved double insulated type or grounded in accordance with Subpart K. Hand-held electrical construction tools, grounded and double insulated, are required to be tested by a qualified testing laboratory as indicated in the 1926.449 definitions applicable to Subpart K - Electrical standards.

(NOTE: Neither standard has not been amended since issuance.)

INTERPRETATION 29 CFR 1926.302(a)(1); 1926.449

DEC 12, 1986 :

This is in response to your letter of October 6, 1986, requesting an official clarification of 29 CFR 1926.302. Your letter addressed to the Directorate of Technical Support was forwarded to this office for response.

29 CFR 1926.302(a) requires that all electrical conductors and equipment shall be approved. Therefore, we confirm your understanding that all hand-held electrical construction tools, grounded and double insulated, are required to be tested by a qualified testing laboratory as indicated in our 29 CFR 1926.449 definitions applicable to Subpart K - Electrical standards.

RECORD ID 1318

STANDARD NUMBER 1926.302(b)(7)
INFORMATION DATE 830606

ABSTRACT This clarification letter clarifies that the requirement for a safety device to automatically cut off the flow of compressed air applies only to pneumatic power tools.

(NOTE: This standard has not been amended since issuance.)

INTERPRETATION 29 CFR 1926.302(b)(7)

June 6, 1983

This is in response to your letter of May 9, 1983, requesting a clarification of 29 CFR 1926.302(b)(7).

Our review of this matter reveals that 29 CFR 1926.302(b)(7) requires all hoses exceeding 1/2-inch inside diameter to have a safety device at the source of the supply or branch line to reduce pressure in case of hose failure. Safety device, as mentioned above, means a contrivance or device that will prevent injury or avert danger and will automatically cut off the flow of compressed air, if a hose line ruptures or becomes disconnected. 29 CFR 1926.302(b)(7) applies only to pneumatic power tools.

Your letters and attachments have been forwarded to the Directorate of Safety Standards for their consideration in future standards development.

RECORD ID 1223

STANDARD NUMBER 1926.302(e)(7)
INFORMATION DATE 790725

ABSTRACT This interpretation letter addresses driving power activated fasteners into ductile cast iron ingot molds. Requirements for 1926.302(e)(7), derived from ANSI A10.3-1970, may be cited as de minimis (see directive 200-67) if in compliance with updated ANSI A10.3-1977 regarding fastening into any questionable material. Guidance is given to evaluate whether a fastener should be used on or into the surface material.

INTERPRETATION 29 CFR 1926.302(e)(7)

July 25, 1979

This is in reference to our letter dated May 2, 1979, concerning your request for a variance from Section 1926.302(e)(7) Power Operated Handtools - Power Activated Tools, of the Safety and Health Regulations for Construction.

You have requested a permanent variance from Section 1926.302(e)(7) for an operation involving the use of power activated fasteners being driven into ductile cast iron ingot molds. You have stated that this operation is performed by your employees on a continuing basis for various steel companies.

The above standard (derived from ANSI A10.3-1970, Safety Requirements for Explosive - Activated Fastening Tools) prohibits driving power activated fasteners into hard and brittle material including cast iron. However, the latest ANSI standard concerning this subject (ANSI A10.3-1977, Safety Requirements for Power Activated Fastening Systems) has been modified to provide guidance on fastening into any questionable material. Specifically, ANSI A10.3-1977 paragraph 10.3 still contains the language prohibiting the fastening of hard and brittle materials including cast iron, but also refers back to paragraph 9.10 of the same standard. ANSI A10.3-1977 paragraph 9.10 states as follows:

"Before fastening into any questionable material the operator shall determine its suitability by using a fastener as a center punch. If the fastener point does not easily penetrate, is not blunted, and does not fracture the material, initial test fastening shall then be made in accordance with the tool manufacturer's recommendations (see 10.3)."

Our technical staff has thoroughly evaluated the data you submitted under date of April 30, 1979 which included a metallurgical report to show that the particular cast iron used in ingot molds is not hard or brittle and a laboratory report prepared by H.P. White Laboratories which concluded that the cast iron molds has sufficient malleability to permit power activated tool fastenings safely. It appears that your present method of fastening is acceptable. However, it is essential that all necessary safety requirements for this type of operation be observed including, but not limited to, appropriate personal protective equipment and proper barricading to isolate and protect your employees. Additionally, the appropriate laboratory testing (metallurgical) and center punch testing shall be made to assure that the metal characteristics of the ductile cast iron are receptive to a power activated fastener.

The enclosed Program Directive #200-67 has been issued to the Occupational Safety and Health Administration's (OSHA) field offices to provide guidance concerning de minimis violations. The Directive authorizes the use of de minimis violations in situations where OSHA standards (derived from such consensus groups as NFPA, ANSI, etc.) have been updated in later consensus publications in accord with new technology or equipment. However, the updated consensus standard shall provide equal or greater safety and health protection to the employees. A de minimis violation carries no penalty and no abatement is necessary.

From the information contained in your application, discussions with our technical staff, the Area Office and our solicitor, it has been determined that your present operation concerning fastening of ductile cast iron molds appears to meet the conditions of a de minimis violation under the terms of Program Directive #200-67 and ANSI A10.3-1977.

Affected employees and their authorized representatives shall be notified of our decision on your application in the same manner they were informed of your request for a variance.

No further action will be taken on your request for a variance.

OSHA Instruction STD 1-13.4

AUGUST 5, 1981

SUBJECT: Portable Belt Sanding Machines as Covered by 29 CFR 1910.243(a)(3) and 29 CFR 1926.304(f)

- A. Purpose.** This instruction provides guidance to allow equitable enforcement of 29 CFR 1910.243(a)(3) and 29 CFR 1926.304(f) as they pertain to the guarding of portable belt sanders.
- B. Scope.** This instruction applies OSHA-wide.
- C. Action.** OSHA Regional Administrators/Area Directors shall classify violations of 29 CFR 1910.243(a)(3) and 29 CFR 1926.304(f) as de minimis violations where the employer has complied with appropriate safeguarding precautions as follows:
 - 1. Portable belt sanding machines shall be provided with guarding on one side at the nip point where the sanding belt runs into a pulley,
 - 2. Handles shall be so located that a barrier interrupts any straight line path between the gripping surface of a handle and the nip point of a pulley, and
 - 3. The unused run of the sanding belt shall be guarded on one side and at the rear.
- D. Federal Program Change.** This instruction describes a Federal program change which affects State Programs. Each Regional Administrator shall:
 - 1. Ensure that this change is forwarded to each State designee.
 - 2. Explain the technical content of the change to the State designee as requested.
 - 3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.
 - 4. Review policies, instructions and guidelines issued by the State to determine if this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections and case file reviews) shall also be used to determine if this change has been implemented in actual performance.
- E. Background.** Revision of 29 CFR 1910.243(a)(3) and 29 CFR 1926.304(f) are under consideration by the Mechanical Engineering and Construction Standards Divisions. The standards presently in effect prescribe guarding requirements which essentially prevent flush sanding at corners, and important feature and an application of portable belt sanders. The modified form of guarding, as presented by this instruction, permits flush sanding at corners and provides for operator safety.

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OSHA Instruction STD 3-8.2

March 11, 1981

SUBJECT: 29 CFR 1926.350(a)(9) Securing of Compressed Gas Cylinders

A. Purpose. This instruction emphasizes that the OSHA standard, 29 CFR 1926.350(a)(9), applies to transporting, moving and storing compressed gas cylinders at construction sites only.

B. Scope. This instruction applies OSHA-wide.

C. Action. OSHA Regional Administrators and Area Directors shall assure that CSHO's do not apply 29 CFR 1926.350(a)(9) to the manufacturers and distributors of welding gases based on the following:

1. The construction standard, 29 CFR 1926.350(a)(9), or any comparable maritime standard, does not apply to welding gas supply manufacturers or distributors who do not secure compressed gas cylinders in an upright position on their premises.

2. The general industry standards, 29 CFR 1910, Subpart Q--Welding, Cutting, and Brazing, (Source Standard is in NFPA-51-1969) do not contain any standard comparable to the construction standard, 29 CFR 1926.350(a)(9).

3. 29 CFR 1910.101(b) references, through CGA Pamphlet P-1-1965 article 3.3.1, the source standard, NFPA No. 51-1969 paragraph 1023, which states: "This Standard does not apply to the manufacture of gases and the filling of cylinders."

D. Federal Program Change. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this change is forwarded to each State designee.

2. Explain the technical content of the change to the State designees as requested.

3. Ensure that the State designees are asked to acknowledge receipt of the Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.

4. Review policies, instruction and guidelines issued by the State to determine that this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections and case file reviews) shall also be used to determine if this change has been implemented in actual performance.

E. Background. The National Welding Supply Association has brought to our attention that citations were issued to its manufacturer and distributor members in various parts of the country by compliance officers who are attempting to apply the standard, 29 CFR 1926.350(a)(9), to the activity of these manufacturers and distributors. The intent of the standard applies to gas welding or cutting on a construction site; it does not apply to the manufacturers and distributors of welding gases prior to delivery at the construction site. In addition, manufacturers and distributors have personnel experienced in the handling of the cylinders, who cap, carefully rack, and store the cylinders in an upright position. Continual chaining and unchaining, for example, of hundreds of cylinders as they are moved out of the plant and off the loading docks may produce other hazards.

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DOE Interpretations Guide to OSH Standards

July 1, 1992

RECORD ID 93040201

STANDARD NUMBER 1926.351 (c)(5); 1910.254 (d)(3), (c)(2)(i); 1910.404 (f)(3)
INFORMATION DATE 19930402

ABSTRACT An interpretation letter addressing engine driven arc-welding machines. In the absence of a specific grounding requirement and because an engine-driven arc welding machine is basically a portable generator, OSHA would consider compliance with 1926.404 (f)(3) as compliance with the welding requirements at 1926.351 (c)(5).

INTERPRETATION 29 CFR 1926.351 (c)(5); 1910.254 (d)(3), (c)(2)(i); 1910.404 (f)(3)

April 02, 1993

Dear Mr. B:

Your June 2 letter to R. D. H., Occupational Safety and Health Administration (OSHA) Area Director, requesting an interpretation of OSHA's standards addressing frame grounding of arc welding machines (1926.351(c)(5)(iv)) has been referred to the Office of Construction and Maritime Compliance Assistance for response. I apologize for the delay in responding to your inquiry.

As you know, OSHA's construction requirements for frame grounding of arc welding machines at 29 CFR 1926.351(c)(5) do not specifically address engine-driven units. In the absence of a specific grounding requirement and because an engine-driven arc welding machine is basically a portable generator, OSHA would consider compliance with 1926.404(f)(3) as compliance with the welding requirements at 1926.351(c)(5).

If we can be of any further assistance, please contact me or Mr. D. C. at (202) 219-8136.

SOURCE LETTERS

August 5, 1992

The attached request for subject interpretations was received by our Baton Rouge Area Office from JEG, Inc, Baton Rouge, Louisiana.

This inquiry is forwarded for your review and response since the interpretations could have national implication for consistency in enforcement activities.

Please provide a copy of your response to J. B., Assistant Regional Administrator for Technical Support.

August 5, 1992

Dear Mr. B:

This refers to your letter of June 2, 1992, addressed to our Baton Rouge Area Office, concerning clarification of OSHA safety standards [29 CFR 1910.254(c)(2)(i) and 29 CFR 1926(c)(5)(iv)].

Your inquiry has been referred to the Directorate of Compliance Programs, Washington, DC, for response at that level.

Please accept our apology for the delay in responding to your request.

June 16, 1992

A recent inquiry (copy attached) received from JEG, Inc., a Louisiana firm engaged in both construction work and contract maintenance work in chemical plants/refineries, requested a clarification of when grounding of the frame or case of arc-welding machines is required. 1910.254(c)(2)(i) requires grounding of welding machine frames, but exempts engine-driven machines. 1926.351(c)(5)(iv) requires the frames of all arc welding and cutting machines to be grounded, either through a third wire in the power cable or through a separate wire grounded at the source of the current, but this paragraph seems to apply to welding machines connected to an electrical supply system and not engine-driven machines.

ANSI/ASC Z 49.1 - 1983, Article 11.4.3 "Machine Frame Grounding" stated "....special attention shall be given to safety grounding connections of portable machines per NFPA 70-Art. 250 "grounding".

ANSI C33.2 - 1972, paragraph 14.2 "transformer type arc-welding machines" states "....An arc-welding machine which is not provided with a flexible cord or cable and is not designed for the connection of wiring system shall be provided with a suitable pressure wire connection for attachment of the grounding conductor".

Article 630 (C) of the National Electric Code "Motor-Generator Arc-Welders" does not mention machine frame grounding.

Since the OSHA standards are worded rather confusingly, we would appreciate your help in clarifying when "machine frame grounding" of arc-welding machines is required. Specifically, what types of portable welding machines require the machine to be grounded and are engine-driven machines exempt from this requirement?

We look forward to your rapid response to the technical questions so we may provide competent guidance to our field personnel. If you have a questions concerning this request, please contact W.A. W, Safety Supervisor, in the Baton Rouge Area Office.

June 2, 1992

Dear Mr. H,

I am writing to request your assistance in applying current OSHA safety standards to the use of portable welding machines. Specifically, is the frame of a portable engine driven welding machine required to be earth grounded?

Standard 1910.254(c)(2)(i) requires grounding of welding machines but exempts engine-driven machines. Standard 1910.254(d)(3) requires grounding of welding machines frames to be checked and mandates special attention to the "ground connections of portable machines." Standard 1926.351(c)(5) discusses grounding of ARC welding machine frames but is worded rather confusing and I have gotten various interpretation from several electrical experts. Finally, I have a manufacturer's manual (attached) which states that their portable welding machines do not require the machine frame to be grounded.

Your help in clarifying this rather confusing issue is greatly appreciated. If any further information would be helpful, please don't hesitate to call me at 768-5123.

OSHA Instruction STD 3-8.1

OCT 30, 1978

OSHA PROGRAM DIRECTIVE #100-53

Subject: Welding, Cutting or Heating of Metals Coated with Lead-Bearing Paint

References: (a) 29 CFR 1926.353(c)(2)(i); (b) 29 CFR 1926.354(c)(1)

1. Purpose

This directive explains the requirements imposed by the referenced sections of 1926.353 and 1926.354 when welding, cutting or heating is performed in an enclosed space on metals coated with lead-bearing paint.

2. Documents Affected

None.

3. Explanation

In the Construction Industry, the referenced sections of 1926.353 and 1926.354 apply jointly when welding, cutting or heating is performed in an enclosed space on metal coated with lead-bearing paint. Reference (a) requires employers to provide local exhaust ventilation or to protect employees with airline respirators. Reference (b) requires employers to ensure that the paint is stripped back at least 4 inches from the area of heat application or to protect the employees with airline respirators. A presentation on the dual impact of references (a) and (b) is in order.

4. Action

- a. Sections 1926.353(c)(2)(i) and 1926.354(c)(1) have joint application when welding, cutting or heating is being performed in an enclosed space on metals coated with lead-bearing paint.
- b. There must be compliance with the following dual requirements:
 - (1) At all times, the toxic preservative coating must be stripped back at least 4 inches from the area of heat application (1926.354(c)(1));
 - (2) If the concentration of a substance in the breathing zone of the employee exceeds the threshold limit value (TLV) referenced in section 1926.55 (a), local exhaust ventilation must be provided in addition to the stripping back procedure (1926.353(c)(2)(i)).
- c. When conformity with these requirements fails to reduce concentrations below the TLV, or when the techniques are impossible to implement, then employees must be provided with airline respirators. (See 1926.103 (a)(1).) All possible paint-stripping and provision of local exhaust ventilation must be continued even though it is determined that airline respirators must be used.
- d. The area of heat application is interpreted to be the surface area that the flame or arc contacts.
- e. In some instances it may be difficult to visually ascertain the edge of the area of heat application. In those instances where, because of this difficulty, it is uncertain from visual observations whether the lead-bearing paint is stripped back 4 inches from the area of heat application, the CSHA compliance officer shall mark the edge(s) of the stripped surface that is (are) distal from the center of heat application with temperature indicating crayons having a 500 deg. F melting point. Melting of the crayon markings shall be the criterion for affirming insufficient stripping of the lead-bearing paint.

OSHA Instruction STD 3-8.1 (cont.)

- f. Temperature indicating crayons may be purchased locally from scientific equipment supply houses. If help in locating a supply source is needed, contact the National Office at the telephone number given at the end of this directive.**

5. Effective Date

This directive is effective immediately and shall be retained until further notice. Questions may be directed to the OSHA Washington, D.C. National Office - 523-8098.

OSHA Instruction STD 3-9.1

OCT 30, 1978

OSHA PROGRAM DIRECTIVE #100-53

Subject: Welding, Cutting or Heating of Metals Coated with Lead-Bearing Paint

References: (a) 29 CFR 1926.353(c)(2)(i); (b) 29 CFR 1926.354(c)(1)

1. Purpose

This directive explains the requirements imposed by the referenced sections of 1926.353 and 1926.354 when welding, cutting or heating is performed in an enclosed space on metals coated with lead-bearing paint.

2. Documents Affected

None.

3. Explanation

In the Construction Industry, the referenced sections of 1926.353 and 1926.354 apply jointly when welding, cutting or heating is performed in an enclosed space on metal coated with lead-bearing paint. Reference (a) requires employers to provide local exhaust ventilation or to protect employees with airline respirators. Reference (b) requires employers to ensure that the paint is stripped back at least 4 inches from the area of heat application or to protect the employees with airline respirators. A presentation on the dual impact of references (a) and (b) is in order.

4. Action

- a. Sections 1926.353(c)(2)(i) and 1926.354(c)(1) have joint application when welding, cutting or heating is being performed in an enclosed space on metals coated with lead-bearing paint.
- b. There must be compliance with the following dual requirements:
 - (1) At all times, the toxic preservative coating must be stripped back at least 4 inches from the area of heat application (1926.354(c)(1));
 - (2) If the concentration of a substance in the breathing zone of the employee exceeds the threshold limit value (TLV) referenced in section 1926.55 (a), local exhaust ventilation must be provided in addition to the stripping back procedure (1926.353(c)(2)(i)).
- c. When conformity with these requirements fails to reduce concentrations below the TLV, or when the techniques are impossible to implement, then employees must be provided with airline respirators. (See 1926.103 (a)(1).) All possible paint-stripping and provision of local exhaust ventilation must be continued even though it is determined that airline respirators must be used.
- d. The area of heat application is interpreted to be the surface area that the flame or arc contacts.
- e. In some instances it may be difficult to visually ascertain the edge of the area of heat application. In those instances where, because of this difficulty, it is uncertain from visual observations whether the lead-bearing paint is stripped back 4 inches from the area of heat application, the OSHA compliance officer shall mark the edge(s) of the stripped surface that is (are) distal from the center of heat application with temperature indicating crayons having a 500 deg. F melting point. Melting of the crayon markings shall be the criterion for affirming insufficient stripping of the lead-bearing paint.

OSHA Instruction STD 3-8.1 (cont.)

- f. Temperature indicating crayons may be purchased locally from scientific equipment supply houses. If help in locating a supply source is needed, contact the National Office at the telephone number given at the end of this directive.**

5. Effective Date

This directive is effective immediately and shall be retained until further notice. Questions may be directed to the OSHA Washington, D.C. National Office - 523-8098.

RECORD ID 1436

STANDARD NUMBER 1926.354(c)(1)
INFORMATION DATE 800206

ABSTRACT This interpretation letter clarifies the precautions required for protection against exposure to toxic substances in enclosed spaces. OSHA standard 29 CFR 1926.354(c) prescribes protection that shall be performed to guard against the release of toxic vapors from toxic preservative coatings and section (d) prescribes performance standards for non-toxic/non-flammable preservative coatings.

(NOTE: This standard has not been amended since issuance).

INTERPRETATION 29 CFR 1926.354(c)(1)

February 6, 1980

MEMORANDUM

SUBJECT: Clarification of 29 CFR 1926.354(d)

29 CFR 1926.354(c)(1) specifies the precautions required for the protection against toxic substances in enclosed spaces only. 29 CFR 1926.354(c)(2) addresses toxic work being performed in open air. 29 CFR 1926.354(d) is a performance standard for all non-toxic preservative coatings regardless of the location of the coating.

Paragraph (c) prescribes protection against toxic preservative coatings and paragraph (d) for non-toxic/non-flammable preservative coatings.

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DOE Interpretations Guide to OSH Standards

July 1,1992

AIM

Association for Information and Image Management

1100 Wayne Avenue, Suite 1100
Silver Spring, Maryland 20910
301/587-8202

Centimeter

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7 of 9

OSHA Instruction STD 3-9.1

FEB 22, 1982

Subject: 29 CFR 1926.401(j)(2) and 1926.401(h) Temporary Lighting on Construction Sites

- A. Purpose.** This instruction provides compliance interpretation of 29 CFR 1926.401(j)(2) and 1926.401(h) for temporary lighting on construction sites.
- B. Scope.** This instruction applies OSHA-wide.
- C. Action.** Regional Administrators/Area Directors shall ensure that the following guidelines are adhered to in applying 29 CFR 1926.401(j)(2) and 1926.401(h) to temporary lighting for construction:
- 1. 29 CFR 1926.401(j)(2).**
 - a.** "Heavy duty electric cords" are considered to be "hard service cords"; i.e., flexible cords of types S, SO, ST, and STO for "extra hard usage". (See 1971 NEC Table 400-11.) Such cords are necessary for the rough exposure common to cords in construction.
 - b.** Typical types of "temporary lights" include the following:
 - (1) Single portable extension light,
 - (2) Temporarily fixed or fastened lighting string,
 - (3) Temporarily fixed or fastened single incandescent or fluorescent light, and
 - (4) Portable lighting string; e.g., supported on moveable poles.
 - c.** Hard service cord is required for wiring temporary lights in this standard. However, permanent wiring methods recognized in the 1971 NEC would be acceptable, if properly used, as temporary lighting installations for construction.
 - (1) A cable likely to be used is Nonmetallic- Sheathed Cable (e.t., type NMC; see Article 336 for requirements). Also, Rigid Metal Conduit (Article 346) and Electrical Metallic tubing (Article 348) may be encountered in the wiring of temporary lighting on construction sites.
 - (2) The open wiring option in 1971 NEC 305-Z(c) for lighting strings, in certain situations, may be considered as no more than de minimis, if the manufactured lighting string is UL or FM approved. Additionally, the lighting string must comply with all relevant provisions of the 1971 NEC and the other requirements of Subpart K. Some relevant provisions of the 1971 NEC which pertain to the installation of temporary lighting strings include the following sections:
 - 200-8--Connection to screw shell
 - 210-23--Maximum load
 - 320-5 (a)--Conductors on insulating supports (as amended by Article 305)
 - 400-1--Flexible Cords and Cables--General
 - 410-15--Supports--General
 - 410 23 (a)&(b)--Protection of conductors and insulation
 - 410-41 -Screw - Shell Type

410-52(a)--Rating and Type (Receptacles)

410-43--Lampholders in damp or wet locations

- d. In regards to the length of time that temporary lighting may be used for construction, note that the 1971 NEC, adopted by 29 CFR 1926.400(a), explicitly states in Section 305-1(a): "Temporary electrical ... lighting installations may be used during the period of construction, ..."; i.e., for the entire duration of construction only.
 2. 29 CFR 1926.401(h). This requirement specifies that temporary wiring be grounded in accordance with the National Electrical Code, NFPA 70-1971. The NEC in Section 305-2(c) for temporary wiring states in part that "Each branch circuit which supplies receptacles or fixed equipment shall contain a separate equipment grounding conductor when run as open wiring." If temporary lighting strings containing plastic lamp holders and plastic lamp guards and without any noncurrent-carrying metal parts are intended for use on such branch circuits, the equipment grounding conductor is not applicable and hence not connected. However, the OSHO should be alert to possible misuse of these lighting strings in that an employee may be using a light socket to power other equipment such as a portable hand held electric tool. Such use is prohibited by 1971 NEC Section 410-41.
- D. Federal Program Change. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:
1. Ensure that this change is forwarded to each State designee.
 2. Explain the technical content of the change to the State designee as requested.
 3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.
 4. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections and case file reviews) shall also be used to determine if this change has been implemented in actual performance.
- E. Background. Employers, OSHA compliance personnel, manufacturers, trade and union associations, etc., have requested clarification of 29 CFR 1926.401(j)(2) and 1926.401(j)(2) regarding the issues relevant to temporary lighting on construction sites set forth in C.1. and 2. of this instruction. Some of these issues are presented in the following paragraphs:
1. 29 CFR 1926.400(a) adopts the 1971 NEC for electrical installations but with the proviso, "...unless otherwise provided by regulations of this part." This proviso would give precedence to 29 CFR 1926.401 (J)(2) for compliance.
 - a. Besides flexible cords and cables, Section 305-2(c) under Temporary Wiring of the 1971 NEC permits open conductors for lighting branch circuits for construction. (Note that a conductor is not a cord, nor is it generally a cable.)
 - b. In addition, the NEC provides wiring methods for permanent installations, such as Rigid Metal Conduit (Article 348).

OSHA Instruction STD 3-9.1 (cont.)

2. The precedence referred to above does not affect permanent wiring methods recognized as a class greater than would be pre-permitted for temporary installations. However, this precedence does present a problem for use of the open wiring option permitted by the NEC Section 305-2(c). NEC Article 305-2(c) would permit a modified open wiring method of a class less than would be required for a permanent installation. Even though UL or FM approval is necessary for the manufactured lighting strings, the approval would not be sufficient, in itself, to be in compliance with 29 CFR 1926.401(j) (2) for construction because of this precedence.
 3. A further restriction on open wiring on construction sites is imposed by 29 CFR 1926.401(i). Nevertheless, there may be some situations where the employer can demonstrate that the UL or FM approval is sufficient since the open-conductor lighting string is safe under the conditions of use and location, particularly, if he complies with 29 CFR 1926.401(i) and applicable provisions of the 1971 NEC. In this case, the situations may be regarded as no more than de minimis.
 4. In regards to 29 CFR 1926.401(h) the pertinent requirement in the referenced Articles 305 and 310 is in Section 305-2(c), which states in part: "Each branch circuit which supplies ... fixed equipment shall contain a separate equipment grounding conductor when run as open wiring." By definition (NEC Article 100), an Equipment Grounding Conductor is one connecting "... noncurrent-carrying metal parts of equipment ... to the system grounded conductor at the service and/or the grounding electrode conductor." Where, in the case of temporary lighting, the lamp holders and lamp guards are plastic and there are no noncurrent-carrying metal parts, equipment grounding would not apply.
- F. Summary. OSHA standard, 29 CFR 1926, Subpart K requires that temporary lighting on construction sites utilize hard service cords (Types S, SO, ST and STO).
1. If open wiring is used on construction sites and approved screw-shell type lamp holders are attached to provide a system of temporary lighting in accordance with the temporary wiring provisions of NEC Section 305 and the open wiring on insulator provisions of NEC Section 320, a 1926.401(j)(2) violation will be considered de minimis.
 2. If, instead of attaching approved screw-shell type lamp holders to open conductor temporary wiring, prefabricated lighting strings of the open conductor variety are used but the installation is still maintained in accordance with the provisions of NEC Sections 305 and 320, the violation will be considered de minimis.
 3. If either the attached screw-shell lamp holders or the prefabricated lighting strings are used as part of an open conductor wiring system to satisfy the temporary wiring requirement but are installed, modified, or used in a manner not permitted by the NEC, a serious or other violation will be cited.

Examples of such misuse would be:

- (a) Lamp holders, not of the weatherproof type, installed in damp or wet locations, or located under roofed canopies but subject to beating rain or water runoff.
- (b) Lamp holders added to the prefabricated lighting strings such that the rated capacity of the original string is exceeded.
- (c) Lamp holders of the screw-shell type used for purposes other than lamp holders such as, for instance, being adapted for use as receptacles.
- (d) Runs of open conductors located where the conductors are subject to physical damage.

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DOE Interpretations Guide to OSH Standards

July 1, 1992

RECORD ID 1541

STANDARD NUMBER 1926.402(a); 1926; 1926.417(b); 1926.432(a)(1); 1926.950(d);
1926.957(b)
INFORMATION DATE 870220

ABSTRACT This memorandum addresses the electrical standards for construction (revised Subpart K) and its applicability to the electric utility industry. In revising its electrical standards for construction, OSHA devised a new format which divides 29 CFR 1926, Subpart K into four categories. Questions are answered regarding application of the newly revised Subpart K to the electric utility industry.

INTERPRETATION 29 CFR 1926.402(a); 1926; 1926.417(b); 1926.432(a)(1); 1926.950(d);
1926.957(b)

FEB 20, 1987

MEMORANDUM TO: REGIONAL ADMINISTRATORS, STATE DESIGNEES, and 7(c)(1)CONSULTATION MANAGERS

SUBJECT: ELECTRICAL STANDARDS FOR CONSTRUCTION, REVISED SUBPART K

In revising its electrical standards for construction, OSHA devised a new format, which divides 29 C.F.R. 1926, Subpart K into four categories. As stated in the preamble to the final rule (51 Fed. Reg. 25297), OSHA believes that the use of this format can provide for the continued effective coverage of hazards and equipment formerly addressed, with enough flexibility to accommodate other equipment and protective methods in the future. Electrical safety-related work practices, Part II of this new format, carried over work-practice requirements from the former Subpart K. For example, the former 1926.400(g) was moved, without substantive change, and placed in new 1926.417, under Part II of Subpart K.

Questions have arisen regarding the application of newly-revised 29 C.F.R. 1926 Subpart K to the electric utility industry. OSHA has therefore determined to clarify the Subpart with respect to two provisions, 29 C.F.R. 1926.432(a) and 29 C.F.R. 1926.417(b).

1. 29 C.F.R. 1926.432(a). Section 1926.432(a), requiring that equipment used in certain areas be "identified for use" in those areas by testing laboratories, is not applicable to power generation installations. Section 1926.432 was taken directly from Section 110-11 and 300-6 of the 1981 National Electrical Code. Because installations for the generation, transmission, or distribution of electrical energy are excluded from the scope of the NEC, it was not OSHA's intent that new 1926.432 be applied to such installations.
2. 29 C.F.R. 1926.417(b). A second concern regarding Subpart K relates to application of 29 C.F.R. 1926.417(b) to electric utilities. That provision, titled "Lockout and tagging of circuits," requires that "equipment or circuits that are deenergized shall be rendered inoperative..." This provision was taken without change from existing Subpart K and no change in required practices is intended. OSHA does not construe this provision to require that all disconnects used for deenergization of equipment or circuits be locked in all instances in the electric utility industry. See 51 Fed. Reg. 25315. Specifically, where there are unique elements of power generating installations that would make application of locks or other means of rendering equipment inoperable infeasible, the standard should not be read to require locks provided that an equivalent level of employee safety is achieved by tagging.

Guidance for implementing this determination may be drawn from pertinent provisions of Subpart V of the Construction Standards, governing construction work performed on power transmission or distribution lines or equipment, including construction in energized substations. Where lines or equipment must be deenergized during construction, 29 C.F.R. 1926.957(b) and 1926.950(d) apply to require appropriate tagging procedures. Thus, to promote uniformity of procedures for deenergizing and tagging of generating installations during all types of work and to maximize the safety to require lockout of installations of electric equipment where lockout is infeasible, as long as the employer is following the procedures for tagging prescribed in 1926.950(d) as specified in 1926.957(b), and is adequately training employees in the use of these procedures.

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DOE Interpretations Guide to OSH Standards

July 1,1992

RECORD ID 91100101

STANDARD NUMBER 1926.403 (a); 1926.404 (f)(3)(iii), (f)(3)(i), (f)(1), (f)(4), (f)(5)
INFORMATION DATE 19911001

ABSTRACT An interpretation letter concerning OSHA's electrical standards pertaining to portable generators. OSHA has no requirement for portable or vehicle mounted generators on a job site to be listed, labeled or certified. 29 CFR 1926.403 (a) requires all electrical conductors and equipment to be "approved". A neutral conductor shall be bonded to the generator frame when the generator is a component of a separately derived system (29 CFR 1926.404 (f)(3)(iii)). Portable generators supplying fixed wiring systems are not generally considered to be separately derived systems and usually have to be grounded.

INTERPRETATION 29 CFR 1926.403 (a); 1926.404 (f)(3)(iii), (f)(3)(i), (f)(1), (f)(4), (f)(5)

October 01, 1991

Dear Mr. I:

This is in response to your August 14, 1991, letter requesting clarification of the Occupational Safety and Health Administration's (OSHA) electrical standards pertaining to portable generators.

In regard to your question whether portable or vehicle mounted generators on a job site are required to be listed, labeled or certified, please be advised that OSHA has no such requirement. However, paragraph (a) of 29 CFR 1926.403 requires all electrical conductors and equipment to be "approved". OSHA has determined that equipment listed, labeled, or certified to be safe by a qualified testing laboratory, is considered to be "approved". (A copy of 29 CFR 1926, Subpart K is enclosed. Please see the definitions of "acceptable" and "approved".)

In regard to your question whether a 120/240 volt portable generator rated at 5000 watts is required to have the neutrals bonded, please be advised as follows: A neutral conductor shall be bonded to the generator frame when the generator is a component of a separately derived system. (See 29 CFR 1926.404(f)(3)(iii)). Thus, where the generator supplies only equipment mounted on the generator and/or cord- and plug-connected equipment through receptacles mounted on the generator and the noncurrent-carrying metal parts of equipment and equipment grounding conductor terminals of the receptacles are bonded to the generator frame, then the portable generator frame is not required to be grounded and is permitted to serve as the grounding electrode. (See 29 CFR, 1926.404(f) (3)(i)). However, portable generators supplying fixed wiring systems are not generally considered to be separately derived systems and usually have to be grounded. An alternating-current power source such as an on-site generator is not a separately derived system if the neutral is solidly interconnected to a service-supplied system neutral. In such cases, the neutral conductor of a single-phase, 3 wire system must be grounded. (See 29 CFR 1926.404(f)(1),(4), and (5)).

If we can be of further assistance, please contact Mr. R. G., Director, Office of Construction and Maritime Compliance Assistance, phone (202) 523-8136.

RECORD ID 1206

STANDARD NUMBER 1926.404(b)(1)(i); 1926.302(a)(1)
INFORMATION DATE 771007

ABSTRACT This interpretation letter addresses double-insulated tools and ground-fault protection used on construction sites. The ground fault protection standard (1926.404) requires either ground-fault circuit interrupters or an assured equipment grounding program to protect employees on construction sites. Potential problems with the use of double-insulated tools are discussed.

(NOTE: Subpart K 1926.400-405 was revised in 1986. Ground fault circuit interrupters are covered in 1926.404(b)(ii). They are required for all 120 volt, single phase, 15 and 20 amp construction site receptacle outlets which are not part of the permanent wiring of the building or structure and which are in use by employees. The electric powered hand tools are covered in 1926.302(g) following the grounding requirements described in Subpart K).

INTERPRETATION 29 CFR 1926.404(b)(1)(i); 1926.302(a)(1)

October 7, 1977

MEMORANDUM

SUBJECT: Double-Insulated Tools and Ground-Fault Protection on Construction Sites

This is in response to your letter dated August 5, 1977, on the above subject.

The ground-fault protection standard requires the employer to provide either ground-fault circuit interrupters (GFCI's) or an assured equipment grounding conductor program to protect employees on construction sites. If the employer has chosen the GFCI option, he must use them to protect his employee whether grounded or double-insulated tools are used. If the employer uses the assured equipment grounding conductor program, he must comply with all the provisions given under that option. However, double-insulated tools do not require the equipment grounding conductor tests, since they are not required to be grounded.

The exposure to ground-fault hazards exists when any electric tool is being used even on a grounded circuit. Specifically, a shock hazard develops with the use of a double-insulated tool under the following conditions (among others):

1. When the tool is immersed in water;
2. When the tool is abused and the internal double insulation is bridged; and,
3. When defects develop in the supply cord of the tool.

RECORD ID 1241

STANDARD NUMBER 1926.404(b)(1)(ii)
INFORMATION DATE 770426

ABSTRACT This interpretation letter responds to a request for a clarification on ground fault circuit interrupters on portable generators.

(NOTE: The subpart K standard was revised in 1986. The subsection designations referenced in the interpretation letter are not correct but the information is correct. The former section 1926.400(b) is now designated 1926.404(b)).

INTERPRETATION 29 CFR 1926.404(b)(1)(ii)

August 24, 1977

This is in response to your letter dated March 1, 1977, requesting clarification of the requirements in using ground fault circuit interrupters (GFCI) on portable generators, other than the type specified in the existing standard.

In the case of the GFCI option, the standard addresses receptacles not generators. All 120-volt, 15 and 20 ampere receptacles, other than those noted in the exception, which are not part of the permanent wiring and which are in use on construction sites must be protected. Therefore, when it is in use by an employee on a construction site, a 120-volt, 15 or 20 ampere receptacle powered by a portable or vehicle-mounted generator, which is not a two-wire generator, or which is rated more than 5kw must be protected by a GFCI.

April 26, 1977

This acknowledges receipt of your letter requesting clarification of the requirements to use ground fault circuit interrupters on portable generators other than the one type specified in the standard.

Your question may have nationwide affect on the application of the OSHA standard. Therefore, we are taking the liberty of forwarding your letter to our National Office in Washington, D.C. and requesting that they respond directly to you indicating the requirement for GFCI on portable generators of the voltages and types you specify in your letter.

RECORD ID 92091702

STANDARD NUMBER 1926.404(b)(1)(i)
INFORMATION DATE 19920917

ABSTRACT With regard to GFCI protected extension cords, approved portable GFCI's are acceptable branch circuit protection as required by 1926.404(b)(1). The GFCI protected extension cords advertised as being approved by UL meet the requirements for branch circuit ground-fault protection.

INTERPRETATION 29 CFR 1926.404(b)(1)

SEP 17 1992

Dear Mr. H:

This is in response to your July 17 letter requesting an interpretation of an Occupational Safety and Health Administration (OSHA) standard addressing ground-fault protection for branch circuits. I apologize for the delay in responding to your inquiry.

With regard to GFCI protected extension cords, please be advised that approved portable GFCI's are acceptable branch circuit protection as required by 1926.404(b)(1). The GFCI protected extension cords listed in the literature accompanying your letter are advertised as being approved by UL and therefore meet the requirements for branch circuit ground-fault protection.

If we can be of any further assistance, please contact R. G. or D. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202)219-8136.

RECORD ID

92020401

STANDARD NUMBER

1926.404(b)(1)(i);1926.20(b)(1)

INFORMATION DATE

19920204

ABSTRACT

An interpretation letter on OSHA requirements for testing ground fault circuit interrupters (GFCIs) at construction sites. 1926.404(b)(1) does not require GFCIs to be tested. However, 1926.20(b)(2) does require the frequent and regular inspections of equipment. The instructions included with the devices indicate that they should be tested monthly.

INTERPRETATION

29 CFR 1926.404(b)(1)(i);1926.20(b)(1)

February 04, 1992

This is in response to your November 18 memorandum forwarding the MEC Company's request for information on OSHA requirements for testing ground fault circuit interrupters (GFCIs) at construction sites. I apologize for the delay in responding to your inquiry.

Section 1926.404(b)(1) does not require GFCIs to be tested. However, 1926.20(b)(2) does require the frequent and regular inspections of equipment. The instructions included with the devices indicate that they should be tested monthly. If an employer can demonstrate, for example, by means of logs or procedures, that he or she tests GFCIs monthly and promptly replaces those found defective, then a serious citation may not be appropriate for defective GFCIs found upon inspection, provided the faulty devices are replaced promptly.

In regard to M's remaining two questions concerning the proper procedures for testing GFCIs, I have attached the Electrical/Electronic Technical Note 91-1 which outlines the acceptable test procedure.

RECORD ID 92041502

STANDARD NUMBER 1926.404(b)(1)(i), (b)(1)(ii); 1926.405 (a)(2)(ii)(J); 1910.12(b)
INFORMATION DATE 19920415

ABSTRACT An interpretation concerning whether temporary wiring requirements apply to cord sets connected to permanent wiring for construction work. "Construction work" which is defined in 29 CFR 1910.12 (b) as "work construction", alteration and/or repair, including painting and decorating." Whether or not the permanent wiring has been installed is not relevant to the applicability of the standard. OSHA considers extension cords as temporary extensions of branch circuits and therefore GFCI's or an assured equipment grounding conductor program is normally required (1926.404 (b)(1)). If the area in which work is being performed is completed to the extent that the building finish has been applied and if employees are not exposed to contact with large grounded objects (such as metal ducts and structural steel and concrete, including flooring), the severe ground -fault hazards addressed by the standard would not be present.

INTERPRETATION 29 CFR 1926.404(b)(1)(i), (b)(1)(ii); 1926.405 (a)(2)(ii)(J); 1910.12(b)

April 15, 1992

Dear Mr. E:

This is in response to your January 31 letter requesting an interpretation of the application of Occupational Safety and Health Administration (OSHA) construction standards and whether temporary wiring requirements apply to cord sets connected to permanent wiring.

In regard to what constitutes a construction site or when OSHA construction standards apply, please be advised that part 1926 applies to all "construction work" which is defined in 29 CFR 1910.12(b) as "work for construction, alteration and/or repair, including painting and decorating." Therefore, OSHA construction standards would apply to the electrical installation referred to in your letter if construction, alteration or repair work is being performed. Whether or not the permanent wiring has been installed is not relevant to the applicability of the standard. The key factor is whether the activity being performed is construction work.

In regard to whether an extension cord, used to supply power between permanent wiring and a hand tool, is temporary wiring, please be advised that OSHA considers extension cords as temporary extensions of branch circuits and therefore GFCI's or an assured equipment grounding conductor program is normally required (1926.404(b)(1)).

However, if the area in which work is being performed is completed to the extent that the building finish has been applied and if employees are not exposed to contact with large grounded objects (such as metal ducts and structural steel and concrete, including flooring), the severe ground-fault hazards addressed by the standard would not be present. The Agency's policy is to treat this condition as de minimis (1926.404(b)(1)) in such areas, whether or not the electric power to tools in use is supplied by extension cord sets. This is based on the permanent nature of the electrical installations and the condition and maintenance of electrical tools and equipment used in general industry, as contrasted with the temporary wiring, which is frequently moved, and the rough use, abuse, and the relatively poorer condition and maintenance of electrical tools and equipment found on construction sites.

If we can be of any further assistance, please contact Mr. R. F. G. or Mr. D. R. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

RECORD ID 92110402

STANDARD NUMBER 1926.404 (b)(1)(i), (b)(1)(iii); 1926.403 (a)
INFORMATION DATE 19921104

ABSTRACT An interpretation letter addressing ground fault circuit interrupters on extension cords as well as on portable tools. Paragraph 1926.404(b)(1) requires an employer to use either ground fault circuit interrupters (GFCI) or an assured equipment grounding conductor program to protect employees on construction sites. The GFCI equipped cord set assembly or the GFCI equipped portable tool assembly must, as a complete unit, be approved as required by 1926.403(a) in accordance with the definition given in 1926.449.

INTERPRETATION 29 CFR 1926.404 (b)(1)(i), (b)(1)(iii); 1926.403 (a)

November 04, 1992

Dear Mr. B:

This is in response to your August 31 letter requesting an interpretation of an Occupational Safety and Health Administration (OSHA) standard addressing ground fault circuit interrupters on extension cords as well as on portable tools. I apologize for the delay in our response.

Paragraph 1926.404(b)(1) requires an employer to use either ground fault circuit interrupters (GFCI) or an assured equipment grounding conductor program to protect employees on construction sites. The GFCI equipped cord set assembly or the GFCI equipped portable tool assembly must, as a complete unit, be approved as required by 1926.403(a) in accordance with the definition given in 1926.449. If all incorporated GFCI cord sets and/or portable tool assemblies at a construction site are approved and used in a manner such that the entire length of all cords are provided with protection, then the employer would be in compliance with this standard without an assured equipment grounding conductor program. A problem may arise, however, if some but not all cord sets are equipped with GFCI's. In this case, an assured equipment grounding conductor program would be required for all cord sets and equipment connected by cord and plug, as established in paragraph 1926.404(b)(1)(iii). In other words, this would require the testing of all cord sets including those cord sets and portable tools which incorporate their own individual approved GFCI's.

If we can be of any further assistance please contact either myself or D. R. C. of my staff at (202) 219-8136.

SOURCE LETTER
August 31, 1992

Mr. R. G.

I am writing you to ask for and interpretation of 1926.404, the question is if you use ground fault circuit interrupters on electrical cords including portable tools do you have to have an assured grounding program in place, your response in this matter is greatly appreciated.

RECORD ID 93062801

STANDARD NUMBER 1926.404 (f)(3)(iii), (f)(3)(ii)(C), (f)(3)(i)(B); 1926.403 (a); 1926.449
INFORMATION DATE 19930628

ABSTRACT An interpretation letter stating that portable and vehicle mounted generators on a construction job site are required to be "approved," according to 1926.403(a). A non-separately derived system at the jobsite would not need to have its neutral grounded, because the service-supplied system would already provide this function. Portable and vehicle-mounted generators are typically used to provide primary power for utilization equipment on construction sites and are normally separately derived systems for the purposes of OSHA's electrical standards for construction.

INTERPRETATION 29 CFR 1926.404 (f)(3)(iii), (f)(3)(ii)(C), (f)(3)(i)(B);
1926.403 (a); 1926.449

June 28, 1993

Dear Mr. I:

This is in response to your December 20, 1991, letter requesting clarification of Occupational Safety and Health Administration (OSHA) standards concerning portable and vehicle mounted generators. I apologize for the excessive delay in responding to your inquiry.

In regard to whether portable and vehicle mounted generators on a construction job site are required to be listed, labeled or certified, please be advised that all electrical conductors and equipment are required to be "approved," according to 1926.403(a). Section 1926.449 includes definitions of terms used in the Electrical Standards for Construction, contained in Subpart K of 29 CFR Part 1926. The definitions of "approved" and "acceptable" indicate what constitutes approval under Subpart K of the Construction Standards.

An installation or equipment is acceptable to the Assistant Secretary of Labor, and approved within the meaning of this Subpart K:

1. If it is accepted, or certified, or listed, or labeled, or otherwise determined to be safe by a qualified testing laboratory capable of determining the suitability of materials and equipment for installation and use in accordance with this standard; or
2. With respect to an installation or equipment of a kind which no qualified testing laboratory accepts, certifies, lists, labels, or determines to be safe, if it is inspected or tested by another Federal agency, or by a State, municipal or other local authority responsible for enforcing occupational safety provisions of the National Electrical Code, and found in compliance with those provisions; or
3. With respect to custom-made equipment or related installations which are designated, fabricated for, and intended for use by a particular customer, if it is determined to be safe for its intended use by its manufacturer on the basis of test data which the employer keeps and makes available for inspection to the Assistant Secretary and his authorized representatives.

Electric equipment (i.e., generators) meeting the above will be considered approved by OSHA.

In regard to whether portable and vehicle mounted generators are included in the definition of "equipment" for purposes of Subpart K, please be advised that "equipment" is defined as follows:

A general term including material, fittings, devices, appliances, fixtures, apparatus, and the like, used as a part of, or in connections with, an electrical installation.

This definition clearly includes an electric generator supplying power to other electric equipment used on a jobsite.

In regard to a separately derived system, please be advised that the National Electrical Code (National Fire Protection Association, NFPA 70) contains information useful in determining whether a portable or vehicle-mounted electric generator is being used as part of a separately derived system. Section 250-5(d) of this code contains the following explanation:

4. **Separately Derived Systems.** A premises wiring system whose power is derived from generator, transformer, or converter windings and has no direct electrical connection, including a solidly connected grounded circuit conductor, to supply conductors originating in another system...

(FPN No. 1): An alternate alternating-current power source such as an on-site generator is not a separately derived system if the neutral is solidly interconnected to a service-supplied system neutral.

Thus, a separately derived system has no direct electrical connection to another system supplying power at the jobsite, while a non-separately derived system would be directly connected to another system supplying power to the site. A non-separately derived system at the jobsite would not need to have its neutral grounded, because the service-supplied system would already provide this function. Portable and vehicle-mounted generators are typically used to provide primary power for utilization equipment on construction sites and are normally separately derived systems for the purposes of OSHA's electrical standards for construction.

In the OSHA standards for portable vehicle-mounted generators, equipment grounding conductor bonding is mentioned in 1926.404(f)(3)(i)(B) and in 1926.404(f)(3)(ii)(C). Neutral conductor bonding is mentioned in 1926.404(f)(3)(iii).

The intent of 1926.404(f)(3)(iii) becomes very clear when one considers that the term "neutral" is used in its technical sense. A 120/240 volt system has a neutral and therefore must be bonded to the generator frame. A 2-wire 120 volt system has no neutral and therefore bonding is optional. Recall that neither side of a 2-wire derived system is a neutral and when one grounds either side, it becomes a grounded terminal or conductor, but it is not a neutral.

If we can be of any further assistance, please contact me or Mr. D. R. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 219-8136.

SOURCE LETTER

December 20, 1991

Dear Ms. C:

Your letter of October 1, 1991 pertaining to portable and vehicle mounted generators left me somewhat less than clear on OSHA's standards.

The following is my understanding of the information which you provided.

Labeled, listed, certified.

Portable and vehicle mounted generators on a job sit are not required to be listed, labeled or certified.

As defined in subpart K, portable and vehicle mounted generators are not "electrical conductors" or "equipment".

Neutral Bonding

Neutral bonding is required when the generator is a component of a separately derived system (29 CFR 1926.404(f)(3)(iii)).

A generator is not a component of a separately derived system when it only supplies equipment mounted on the generator and/or cord and plug connected equipment through the generator receptacles.

A generator is a component of a separately derived system when it supplies conductors originating in another system.

29 CFR 1926.404(f)(3)(i) does not refer to neutral bonding.

29 CFR 1926.404(f)(1), (4) and, (5) do not refer to neutral bonding.

If my understanding of your letter is incorrect, inaccurate or incomplete please contact me.

RECORD ID

93090301

STANDARD NUMBER
INFORMATION DATE

1926.404 (f)(3)(i), (f)(3)(i)(A), (b)(1)(ii)
19930903

ABSTRACT

An interpretation letter discussing various OSHA standards. Extension cords used between a portable generator and a tool would be considered to be cord- and plug-connected equipment as described in 29 CFR 1926.404(f)(3)(i)(A). OSHA does not require the use of GFCI's on portable or vehicle-mounted generators of 5kW capacity or less if the output is a two-wire, single-phase system and the circuit conductors are insulated from the generator frame and all other grounded surfaces. The use of a receptacle wiring tester to show if a portable generator is properly grounded is dependent upon the configuration of the generator involved. Although 1926.500(g) does not call for personal protective equipment such as body belts or harnesses for fall distances less than 16 feet, 1926.95 can be cited to address the hazards of falling less than 16 feet.

INTERPRETATION

29 CFR 1926.404 (f)(3)(i), (f)(3)(i)(A), (b)(1)(ii)

September 03, 1993

Dear Ms. F:

This is in response to your February 8 letters requesting interpretation of various Occupational Safety and Health Administration (OSHA) standards. I apologize for the delay in responding to your inquiry.

With regard to whether cord- and plug-connected equipment includes extension cords used between the power supply and the tool when the power supply is a portable generator, please be advised that such extension cords would be considered to be cord- and plug-connected equipment as described in 29 CFR 1926.404(f)(3)(i)(A).

With regard to 29 CFR 1926.404(f)(3)(i) and your question of whether ground-fault circuit interrupters (GFCI's) are required when using portable generators, please be advised that OSHA does not require the use of GFCI's on portable or vehicle-mounted generators of 5kW capacity or less if the output is a two-wire, single-phase system and the circuit conductors are insulated from the generator frame and all other grounded surfaces. (See 29 CFR 1926.404(b)(1)(ii).)

With regard to 29 CFR 1926.404(f)(3)(i) and your question of whether or not a receptacle wiring tester can show if a portable generator is properly grounded, please be advised that the answer is primarily dependent on the configuration of the generator involved. Standard receptacle outlet testers will correctly identify the presence or absence of a properly wired equipment grounding conductor for three-wire, single-phase portable generators (except that some multiple wiring defect combinations cannot be detected). However, such testers will typically indicate the absence of an equipment grounding conductor on two-wire, single-phase portable generators, even when the generator is wired in accordance with OSHA standards. (The reason for this is because two-wire, single-phase portable generators need not have either circuit conductor connected to the equipment grounding conductor at the generator frame. On the other hand, a three-wire, single-phase generator must have its neutral conductor, as well as the equipment grounding conductor, bonded to the generator frame.)

With regard to your policy of instructing companies to comply with the requirements for guarding of low-pitched roof perimeters during the performance of built-up roofing work on roofs with a ground to eave height of 12 feet - 14 feet, please be advised that 29 CFR 1926.500(g) only applies to low-pitched roofs with a minimum ground to eave height greater than 16 feet. Nevertheless, your policy provides sound advice for your clients in dealing with the hazards of falls associated with working near roof perimeters. Although 1926.500(g) does not call for personal protective equipment such as body belts or harnesses for fall distances less than 16 feet, 1926.95 can be cited to address the hazards of falling less than 16 feet

provided OSHA can establish both that a reasonable person familiar with the circumstances would have recognized a hazard warranting the use of personal protective equipment and that the use of personal protective equipment is feasible.

With regard to whether street plates can be used as any part of a protective system in conjunction with trench boxes without a design by a registered professional engineer, please be advised that any use of street plates with premanufactured or job-built shields (trench boxes) must be in accordance with 29 CFR 1926.652(c)(3) or (c)(4) which requires the approval of a registered professional engineer, except when using the designs of shield systems drawn from manufacturer's tabulated data.

If we can be of any further assistance, please contact me or Mr. D. C. of my staff at (202) 219-8136.

RECORD ID 1309

STANDARD NUMBER 1926.405(a)(2); (g)(2)(iii); 1926.403(e)
INFORMATION DATE 830523

ABSTRACT Electrical tape may be used to insulate splices if insulating properties are equivalent to that of the conductor. It may not be used on flexible cords.

(NOTE: Subpart K was revised in 1986. The section referenced in the Interpretation letter, 1926.400(g) is no longer valid. The information in that section remains valid and is found at 1926.403(e). Section 1926.402(a)(5) is no longer valid but the information in it still is, and it can be found in 1926.405(g)(2)(iii). The former section 1926.401 is now designated 1926.405(a)(2)).

INTERPRETATION 29 CFR 1926.405(a)(2); (g)(2)(iii); 1926.403(e)

May 23, 1983

This is in response to your letter of April 13, 1983, to Mr. S, concerning the use of electrician's electrical tape to protect energized temporary wiring on construction sites. Your letter was referred to this office for reply.

The OSHA Construction Standards (copy enclosed) that apply to splices and relate to the typical uses of electrical tape are as follows:

- (1) General wiring. Section 110-14(b) (copy enclosed) of the 1971 National Electrical Code (adopted by reference in 1926.400(a)) states, in part:

Conductors shall be spliced or joined with splicing devices suitable for the use or by brazing, welding, or soldering with a fusible metal or alloy...All splices and joints and the free ends of conductors shall be covered with an insulation equivalent to that of the conductors or with an insulating device suitable for the purpose.

- (2) Temporary lighting. Paragraph (j)(2) of 1926.401 requires splices to have insulation equal to that of cable.

- (3) Flexible cord. Paragraph (a)(5) of 1926.402 contains the following requirements:

Flexible cord shall be used only in continuous lengths without splice, except suitable molded or vulcanized splices may be used where properly made, and the insulation shall be equal to the cable being spliced and wire connections soldered.

For general purposes electrical tape may be used to insulate splices if the type of electrical tape used and the method of application are such that the insulation properties are equivalent to that of the conductor being spliced. Additionally, before the tape is applied, the conductors must be joined with suitable splicing devices or must be soldered, welded, or brazed. Flexible cords, on the other hand, may have only vulcanized or molded splices.

RECORD ID 1557

STANDARD NUMBER 1926.405(a)(2)(ii)(J)
INFORMATION DATE 850926

ABSTRACT This interpretation letter addresses temporary lighting at construction sites. 1926.405(a)(2)(ii)(J) requires temporary and portable lights be installed with heavy duty electric cords or flexible cords designed for hard or extra hard use.

(NOTE: The subpart K standard underwent minor revisions in 1986. Some of the info was changed by that revision. 1926.401 was also renumbered to 1926.405)

INTERPRETATION 29 CFR 1926.405(a)(2)(ii)(J)

September 26, 1985

A (State) standard interpretation, Standards Policy Memorandum 81-328 has been brought to Region IX's attention.

This interpretation allows the use of (product) for temporary lighting on construction sites.

The interpretation contradicts the memo sent by Mr. G to Mr. T, dated February 13, 1981 (copy attached).

Region IX requests that (state) delete the interpretation and revert to 1926.401(j)(2) for compliance. Please submit a written response to this request by October 25, 1985.

February 13, 1981

We have reviewed the request from State compliance personnel to allow "(product)" to be used for temporary lighting at construction sites.

The construction standard, 1926.401(j)(2), requires temporary lighting to be installed with heavy duty electric cords.

The Region would be revising the standard if (product) was an acceptable alternative, therefore, we cannot approve the use requested.

(No Date)

INTEROFFICE MEMORANDUM

TO ALL DOSH PERSONNEL

STANDARDS POLICY MEMORANDUM 81-328 29 CFR 1926.401(j)(2) and 1926.402

An opinion of whether use of (product) for temporary lighting on construction jobs is a citable hazard has been requested. It has been ruled that use of (product) for this purpose is not citable unless it can be clearly demonstrated that this constitutes an immediate hazard. Factors taken into consideration in making this decision are:

1. Historically use of (product) for temporary lighting has been occurring frequently without its creating an obvious hazard or frequent injury to employees.
2. Decisions to cite should be based on conditions as they exist at the time of the inspection, i.e., (product) must be used meeting the criteria set for placement, supports and fastening, absence of damage exposing wires, etc. (product) should be cited in any instance where "heavy duty electric cords" would have been cited under similar circumstances, e.g., worn and frayed cord; stapled or hung from nails, etc.

Officially (product) cannot be recognized as a substitute for "heavy duty electric cords," however, we often have occasions when common sense decisions must be made regarding safety on the job. Therefore, in the absence of a recognized hazard in the use of (product) for temporary lighting on construction job sites, citations and notices of violation will not be issued for its use.

RECORD ID 1710

STANDARD NUMBER 1926.405(g)(1)(i); 1926.404(b)(1)(i)
INFORMATION DATE 840731

ABSTRACT This interpretation letter addresses application of standard 1926.405 to the use of cord sets (extension cords) plugged into permanent wiring at construction sites to supply portable electrical hand tools. Cord sets plugged into permanent wiring at construction sites are temporary wiring; and, therefore, require ground-fault protection as specified in 1926.404(b).

INTERPRETATION 29 CFR 1926.405(g)(1)(i); 1926.404(b)(1)(i)

JUL 3 , 1984

This is in response for an interpretation of cord sets (extension cords) plugged into permanent wiring at construction sites to supply portable electrical hand tools.

Section 305-4(a) of the code requires all 125-volts single-phase, 15 and 20 amperes receptacle outlets which are not a part of the permanent wiring of the building or structure and which are in use by employees shall have ground-fault circuit-interrupter protection for personnel.

I have been advised by my staff that cord sets (extension cords) plugged into permanent wiring at construction sites are temporary wiring and as such require ground-fault protection for personnel on construction sites.

OSHA Instruction STD 3-10.5

OCT 30, 1978

OSHA PROGRAM DIRECTIVE #100-103

SUBJECT: 29 CFR 1926.450(a)(5) Fixed Ladders -- The Use of A Counterweight Device, Without Friction Brake, In Lieu of A Cage, Landing Platform, or Ladder Safety Device on Fixed Ladders Attached to An Oil Well Drilling Rig

1. Purpose

The purpose of this directive is to provide guidelines for situations where alleged violations resulting from the lack of strict adherence to the requirements of 29 CFR 1926.450(a)(5) are observed.

2. Documentation Affected

None.

3. Background

- a. It has been OSHA's position to cite employers who were using counterweight devices without friction brakes on fixed ladders over 20 feet in oil rigs for a violation of 29 CFR 1926.450(a)(5), ANSI A14.3 1956, section 6.1.2 on the theory that counterweight devices are not ladder safety devices and; therefore, employers must provide cages or wells.
- b. Ladder climbing assist devices of the counterbalancing weight design without friction brakes have, however, been in widespread use in the oil well drilling industry for years. Various letters have been received from the oil drilling industry regarding the safety and the use of counterweight devices on fixed ladders for oil well drilling rigs. In addition, a Judge's decision which was affirmed without review by OSHRC addressed this subject. The Commission Judge found that the use of friction brakes on ladders for oil well drilling rigs was more hazardous than the use of counterweight devices because friction brakes would make impossible a rapid descent from ladders in case of a blowout, fire or other emergency situations.

4. Action

Whenever an employer is utilizing a counterweight device without a friction brake, in lieu of a ladder safety device, the violation of 29 CFR 1926.450(a)(5) shall be considered "de minimis," when the following conditions are met:

- a. A ladder climbing assist device shall not be used for emergency egress from elevated working platforms on the rig where employees will be exposed to hazards such as fire and gas from use of the device. A "Geronimo" line shall be provided by the employer for use in these circumstances.
- b. The weight of the counterweight shall be adjusted each time it is used to the weight of each employee using the device to assure safe descent.
- c. The employer has instructed each employee in the proper use of the ladder climbing assist device.
- d. Wire rope suspension shall have a safety factor of not less than 6.
- e. Flexible components such as webbing and fabric shall have a safety factor of not less than 5.
- f. Ductile material shall have a safety factor of not less than 5.

5. Effective Date

This directive is effective upon receipt and will remain in effect until canceled or superseded.

RECORD ID 1445

STANDARD NUMBER 1926.450(a)(3); 1910.25(a); 1926.1053(a)
INFORMATION DATE 781106

ABSTRACT This interpretation letter addresses job made ladders. Disposable job made ladders not meeting the specifications of portable ladders (1926.450(a)) should not be used as portable ladders, and violators of this prohibition will be cited.

(NOTE: This standard has not been amended since issuance.)

INTERPRETATION 29 CFR 1926.450(a)(3); 1910.25(a); 1926.1053(a)

November 6, 1978

This is in response to your letter dated September 28, 1978, requesting an official interpretation of 29 CFR 1926.450(a)(3).

The job-made ladders built to the requirements of 29 CFR 1926.450(b) are intended for temporary use on construction and demolition operations. A job-made ladder is entirely different from a portable wood ladder and would never be required to meet the requirements referenced in 29 CFR 1926.450(a)(3) of the construction Safety and Health Regulations.

Your concept of a manufactured low cost, disposable ladders constructed to specifications exceeding those in 1926.450(b) but not meeting the requirements of 29 CFR 1926.450(a)(3) for portable ladders when used as a portable ladder would be in violation of 29 CFR 1926.450(a)(3). Any employer providing a shoddy on the job-built ladder not meeting the requirements of 29 CFR 1926.450(b) will be cited in violation of the aforementioned standard. Special purpose ladders do meet applicable design requirements but do not satisfy all specification criteria referenced in 29 CFR 1926.450(a)(3) because of the special requirements and use.

The proposed standards for revocation in 29 CFR 1910.25 have now been revoked and a ladder built to the specifications of 29 CFR 1926.450(b) does not meet the requirements of 29 CFR 1910.25 for portable ladders.

RECORD ID

1445

STANDARD NUMBER
INFORMATION DATE

1926.450(a)(3); 1910.25(a); 1926.1053(a)
781106

ABSTRACT

This interpretation letter addresses job made ladders. Disposable job made ladders not meeting the specifications of portable ladders (1926.450(a)) should not be used as portable ladders, and violators of this prohibition will be cited.

(NOTE: Standard 1926.450 has since been put on "Reserved" status, and has been replaced by 1926.1053, (a)(22) specifically. This Record ID has been kept in the Guide for information purposes.)

INTERPRETATION

29 CFR 1926.450(a)(3); 1910.25(a); 1926.1053(a)

November 6, 1978.

This is in response to your letter dated September 28, 1978, requesting an official interpretation of 29 CFR 1926.450(a)(3).

The job-made ladders built to the requirements of 29 CFR 1926.450(b) are intended for temporary use on construction and demolition operations. A job-made ladder is entirely different from a portable wood ladder and would never be required to meet the requirements referenced in 29 CFR 1926.450(a)(3) of the construction Safety and Health Regulations.

Your concept of a manufactured low cost, disposable ladders constructed to specifications exceeding those in 1926.450(b) but not meeting the requirements of 29 CFR 1926.450(a)(3) for portable ladders when used as a portable ladder would be in violation of 29 CFR 1926.450(a)(3). Any employer providing a shoddy on the job-built ladder not meeting the requirements of 29 CFR 1926.450(b) will be cited in violation of the aforementioned standard. Special purpose ladders do meet applicable design requirements but do not satisfy all specification criteria referenced in 29 CFR 1926.450(a)(3) because of the special requirements and use.

The proposed standards for revocation in 29 CFR 1910.25 have now been revoked, and a ladder built to the specifications of 29 CFR 1926.450(b) does not meet the requirements of 29 CFR 1910.25 for portable ladders.

OSHA Instruction STD 1-3.3

NOV 12, 1985

Subject: Building Anchors Used for Intermittent Stabilization of a Suspended Powered Platform in Window Washing Operations and Light Building Maintenance

A. Purpose. This instruction provides guidance to ensure appropriate enforcement of certain requirements pertaining to powered platforms for exterior straight face building maintenance. This instruction does not apply to construction nor two-point suspension scaffolds used in general industry. Requirements for scaffolds used in construction are contained in 29 CFR 1926.451, and general industry application of two-point scaffolds are contained in 29 CFR 1910.28.

B. Scope. This instruction applies OSHA-wide.

C. Reference. OSHA Instruction CPL 2.45A, April 18, 1983.

D. Action. OSHA Regional Administrators/Area Directors shall ensure that the guidelines in this instruction are adhered to in complying with 29 CFR 1910.66(b)(3), Powered Platforms for Exterior Building Maintenance.

E. Federal Program Change. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this change is forwarded to each State designee.
2. Explain the technical content of the change to the State designee as requested.
3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.
4. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections and case file reviews) shall also be used to determine if this change has been implemented in actual performance.

F. Guidelines.

1. **Intermittent Tie-in Stabilization System.** The building anchor system will be installed as described herein.
 - a. The building anchors will be located in vertical rows, with an attachment of maximum elevation at every third floor (approximately 45 feet) and spaced horizontally to allow a stabilization attachment for each of the two platform suspension wire ropes. The minimum tensile strength of the anchor bolt shall be 600 pounds.
 - b. As the suspended platform descends past the elevation of each anchorage, each of the two platform occupants will secure a "quick connect - quick disconnect stabilizer-tie" between a suspension wire rope and a building anchor. Each stabilizer-tie will contain an adjustable lanyard to allow positioning each suspension wire rope vertically at a predetermined angulation that will provide at least 10 pounds of pressure against the building at the lowest point of the tie-in span. The process will be repeated as each elevation of tie-in anchorage is reached during the descent of the platform.
 - c. This process will be reversed, that is, the stabilizers will be removed as each elevation of the stabilization tie-ins is reached as the platform ascends. Said removal is ensured in that the platform will be provided with electrical interlocks to interrupt power to its hoists in the event either interlock contacts a stabilizer during the ascent of the platform.

OSHA Instruction STD 1-3.3 (cont.)

- d. The intermittent stabilization system including its building anchor shall have a safety factor of 4 and the suspension wire ropes shall have a safety factor of 10 against failure.
- e. The engineering analysis documented by a professional engineer will substantiate the method of intermittent stabilization for a suspended powered platform system. Further, such design and method shall provide a condition for employment that will be as safe and healthful as required by the referenced standard.

(1) **Platform.** The platform will be provided with a taut 5/16-inch diameter horizontal galvanized wire rope static line secured to a structural member at both ends of the platform and at the mid-point of the rear guardrail system so that each section of the wire rope static line acts as an independent wire rope lifeline to support either operator in case of a suspension rope failure. The configuration of the attachment must be such that the combined loads of two persons will not be exerted on any attachment at the same time in an emergency. The structural member for the attachment must sustain at least a static load of 4,000 pounds.

- (a) This powered platform (scaffold) must not be used during any period of wind velocity above twenty-five (25) miles per hour. An instrument which will accurately measure wind velocity shall be located on the roof of the building.
- (b) The suspension rope angulation shall be designed into the suspension system and the tie-in lanyard so that the platform shall exert a minimum force of approximately 10 pounds against the face of the building.
- (c) The platform floor shall have openings or gaps to facilitate upward air flow.
- (d) The platform shall be no greater than 32 feet in length nor 3 feet in width.
- (e) The platform shall also be equipped with building face rollers.
- (f) The platform shall be provided with a sensing device that will interrupt its power supply in the event that the platform contacts the tie-in lanyard assembly, to prevent further ascent and ensure that the lanyard assembly can be disengaged from the building anchor.

(2) **Safety Monitor.** The employer shall designate a safety monitor capable of identifying and correcting hazards associated with the intermittent tie-in system for powered platforms.

- (a) The individual designated to be a monitor may be a supervisor or a co-worker engaged in the performance of work on the powered platform. The monitor must be trained and capable of identifying existing and predictable conditions and actions, which are hazardous to employees utilizing the intermittent tie-in system. These hazardous conditions may involve platform and auxiliary equipment, building anchors, anemometer, personal protective equipment, electrical systems and communications. Employee actions that must be monitored are adherence to established procedures, use of personal protective equipment and radio communications with building management personnel.
- (b) The monitor will warn employees of hazardous conditions and unsafe actions on a roof or a powered platform, when it appears to the monitor that they are unaware of a hazard or are acting in an unsafe manner.
- (c) The monitor must be authorized to take prompt corrective action in eliminating hazardous conditions. The monitor must then report to the employer any hazardous conditions which were observed and corrected; and submit recommendations to the employer for any condition which needs future correction.

OSHA Instruction STD 1-3.3 (cont.)

- (d) The monitor must be able to observe employees and be close enough to verbally communicate with them.
 - (3) **Personal Protective Equipment.** Each employee on the working platform of powered platforms shall be provided with personal protective equipment as follows:
 - (a) A body harness with a short lanyard and an automatic locking grab attached to a horizontal static line on the working platform. The locking grab must have a minimum breaking strength of 4,000 pounds.
 - i The body harness, the lanyard and other components, including fastening means and anchorages to the working platform, shall have a minimum breaking strength of 4,000 pounds.
 - ii The attachment to the static line on the platform must have a breaking strength of 4,000 pounds suitable for one person.
 - (b) Fastening devices on the lanyard shall be of the self-closing tapes equipped with a double locking device to prevent accidental opening of the fastening device.
 - 2. **Employee Training.** Operators of powered platforms shall have the knowledge and training to operate equipment in accordance with manufacturer's recommendations and to perform all operations of the intermittent stabilization system.
 - 3. **Additional Employer Responsibilities.** The employer shall comply with all provisions contained in this instruction and with all other applicable provisions of 29 CFR 1910.66, such as requirements for emergency communications, maintenance inspections and tests, etc.
 - 4. **Procedures.** The employer shall ensure that all procedures required for the proper and safe functioning of the intermittent stabilization system are carried out.
- G. Background.** In many high-rise buildings constructed Prior to passage of the Occupational Safety and Health Act of 1970, building face guiding members were not installed for powered platforms intended to be used for exterior building maintenance, which included window washing. In addition, some newly constructed buildings, because of the design, types of materials used for exterior walls and the aesthetics, are not constructed with building face guiding members. In situations where it is not practical to install the building face guides as required in 29 CFR 1910.66(b)(3), powered platforms installed and used in a safe manner as described in this instruction will provide an alternative safe system.

OSHA Instruction STD 1-3.3 CH-1

Subject: Page Change for OSHA Instruction STD 1-3.3

A. Purpose. This instruction transmits a page change to OSHA Instruction STD 1-3.3, November 1, 1982.

B. Scope. This instruction applies OSHA-wide.

C. Action. Replace pages 1 and 2 of OSHA Instruction STD 1-3.3, November 1, 1982, with the attached new pages. File this transmittal page after the signature page of the instruction.

D. Explanation. The reference to OSHA Instruction CPL 2.11A has been changed to the Field Operations Manual (FOM), OSHA Instruction CPL 2.45A. The guidelines on de minimis violations were incorporated into the FOM thereby canceling OSHA Instruction CPL 2.11A in an OSHA Notice CPL 2 which was issued on April 11, 1983. This instruction does not apply to two-point suspension scaffolds which are appropriately covered in the General Industry standard, 29 CFR 1910.28.

OSHA Instruction STD 3-10.1B

AUGUST 14, 1979

SUBJECT: General Industry and Maritime Industry Standards as Related to Construction Standard, 29 CFR 1926.451(a)(10)

- A. Purpose.** This instruction provides information and guidance on laminated planking which meets the equivalent requirements of 29 CFR 1910.28(a)(9), 29 CFR 1915.41(h)(1), 29 CFR 1916.41(h)(1), 29 CFR 1917.41(d)(1), 29 CFR 1918.98(a)(2) and 29 CFR 1926.451(a)(10).
- B. Scope.** This instruction applies OSHA-wide.
- C. Cancellation.** OSHA Instruction STD 3-10.1A, February 28, 1979, is canceled.
- D. Action.**
 - 1. 29 CFR 1910.28(a)(9) and 29 CFR 1926.451(a)(10) state: "All planking shall be scaffold grades, or equivalent, as recognized by approved grading rules for species of wood used." The applicable maritime standards, 29 CFR 1915.41(h)(1), 29 CFR 1916.41(h)(1), 29 CFR 1917.41(d)(1) and 29 CFR 1918.98(a)(2), require that planking shall be straight-grained lumber, 2-inch by 10-inch, free from large or loose knots, and of specified woods.
 - 2. A comparison of engineering data on certain laminated planking with engineering data on planking of scaffold grades, as indicated in the West Coast Lumber Inspection Bureau Grading Rule, finds that some laminated planking provides the equivalent strength of scaffold grade planking, and meets the equivalent requirements of the standards mentioned in the previous paragraph D.1. Laminated planking which is equivalent to scaffold grades is acceptable in General Industry, the Maritime Industry and the Construction Industry and complies with 29 CFR 1926.451(a)(10). CSHO's shall check laminated planking engineering data to insure that it is equivalent.
- E. Federal Program Change.** This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:
 - 1. Ensure that this change is forwarded to each State designee
 - 2. Explain the technical content of the change to the State designee as requested.
 - 3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.
 - 4. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections, spot check visits and case file reviews) shall also be used to determine if this change has been implemented in actual performance.
- F. Background.** Several Regional Offices have reviewed and provided documentation indicating that some laminated planking is equivalent to scaffold grade planking.

OSHA Instruction STD 3-10.2

OCT 30, 1978

OSHA PROGRAM DIRECTIVE #100-32

Subject: 29 CFR 1926.451(i)(8) Multi-stage Suspension Scaffolds

1. Purpose

To provide specific interpretation of 29 CFR 1926.451(i)(8).

2. Directives Affected

None.

3. Interpretation

Questions have arisen relating to the application of 29 CFR 1926.451(i)(8) to multistage suspension scaffolds. Multistage suspension scaffolds have two or more stages (platforms) and the usual method of fabrication results in rigid end suspension members structure. If 29 CFR 1926.451 (i)(8) were applicable to multistage suspension scaffolds, personnel on the various stages of the scaffold would have to be secured to the building structure. In the event of failure of one of the suspension lines, employees on the lower levels of the multistage scaffolding would be subject to a greater hazard by attaching their safety belts to the building structure than by attaching their safety belts to a suitable member of the scaffold structure.

Subpart D of 29 CFR 1910 is currently being revised and one proposed part will address this subject. It will require personnel on multistage instead of to the building structure. It is also proposed that a like standard will be promulgated in 29 CFR 1926.

The Construction Standards were promulgated by the Construction Safety Task Force as provided by PL 91-54 prior to passage of the Occupational Safety and Health Act of 1970. Several members of the original task force have been contacted and their statement is that at the time 1926.451 (i)(8) was promulgated that there was no intent for the standard to apply to a suspension scaffold having more than one platform. Therefore, 1926.451 (i)(8) shall not apply to multistage suspension scaffolds.

4. Action

Pending final promulgation of the standard, an alleged violation for failure of the employee to tie-off on the scaffold structure shall be cited under 5(a)(1) of the Act, providing it merits the requirement of a serious violation.

OSHA Instruction STD 3-10.3

October 30, 1978

OSHA PROGRAM DIRECTIVE #100-58

SUBJECT: 29 CFR 1926.451(a)(5) Scaffolding, General Requirements, Guardrails

1. Purpose

To establish guidelines on the use of chains, and wire, fiber, or synthetic ropes as guardrails on scaffolding.

2. Directives Affected

None.

3. Background

- a. Several inquiries have been made regarding the meaning of the term "or the equivalent" when used in 29 CFR 1926.451(a)(5), which states:

Guardrails shall be 2 x 4 inches, or the equivalent, approximately 42 inches high with a midrail, when required. Supports shall be at intervals not to exceed 8 feet. Toe boards shall be a minimum of 4 inches in height.

- b. In addition, inquiries have been made regarding the use of chains and ropes for scaffold guardrails, in lieu of guardrails made of not less than 2 x 4 inches lumber. When chains or ropes are used for guardrails, questions are asked regarding the maximum allowable slack in the chain or rope and types of ropes that can be used.

4. Action

- a. The use of chain and synthetic, fiber, or wire ropes as top rails and intermediate rails of guardrails used on scaffolding meets the equivalent requirements of 1926.451(a)(5) when in compliance with the following guidelines.

- (1) Rope or chain shall be secured to each support and taut at all times. It may be necessary to use a positive tensioning device to reduce the sag or catenary to a minimum.
- (2) The rope or chain shall be free of sharp edges, burrs, or projections which may be a hazard.
- (3) The maximum deflection of the top rail when a load of 200 pounds is applied in any direction at any point on the top rail shall not exceed 3 inches in one direction which includes the free hanging sag in the rope or chain.

5. Effective Date

This directive is effective upon receipt and will remain in effect until canceled or superseded.

OSHA Instruction STD 3-10.4

OCTOBER 30, 1978

OSHA PROGRAM DIRECTIVE #100-84

Subject: 29 CFR 1926.451, Scaffolding

1. Purpose

The purpose of this directive is to clarify the application of 29 CFR 1926.451, Scaffolding, Construction standards.

2. Documentation Affected

This directive supersedes Field Information Memorandum #75-19 dated March 6, 1975.

3. Background

As the result of a request to clarify the application of 29 CFR 1926.451, the following is herewith forwarded:

- a. 29 CFR 1926.451(a)(2)--Concrete block is not always an "unstable object" when used as a base for scaffolding. The circumstances and techniques under which it is used must be considered to determine its stability.
- b. 29 CFR 1926.451(a)(3)--A brace is defined in 29 CFR 1926.452 (b)(3) as a tie that holds one scaffold member in a fixed position with respect to another member. The fact that a scaffold member has a place for a brace does not necessarily require that the brace be in place, if it interferes with the erection or stocking of the scaffold. This is only true if the scaffolding is capable of supporting four times the maximum intended load and meets the other applicable requirements of 29 CFR 1926.451. Also, the manufacturer's design specifications, particularly with respect to the lateral stresses involved, are an important aspect which must be considered in the decision to remove pieces of bracing.
- c. 29 CFR 1926.451(a)(7) and (8)--A scaffold plank is considered a component of the scaffolding. As such, it must be capable of supporting four times the maximum intended load without failure (a safety factor of four). The fact that a plank might have a split in one end does not automatically mean that it must be removed from service, provided it does not otherwise create a hazard to the employees.
- d. 29 CFR 1926.451(d)(4)--The standard requires scaffold legs to be placed on a foundation that is adequate to support four times the intended load of the scaffold. The standard does not require that base plates always be employed, but only when conditions necessitate their use. For example, the scaffold legs cannot be placed on a mud foundation without a base to prevent the legs from sinking into the mud.

4. Action

As in all cases, the determination of compliance or noncompliance depends upon the conditions the CSHO observes at the time of inspection. These four interpretations are meant as guidelines only.

5. Effective Date

This directive is effective immediately and will remain in effect until canceled or superseded.

OSHA Instruction STD 3-10.6

AUG 16, 1982

SUBJECT: 29 CFR 1926.451(w) and 1926.451(a)(18) As Applied to Welding Required on Float or Ship Scaffolds.

- A. Purpose.** This instruction clarifies the application of the subject standards to welding on float or ship scaffolds.
- B. Scope.** This instruction applies OSHA-wide.
- C. Action.** OSHA Regional Administrators/Area Directors shall take action to ensure that 29 CFR 1926.451(w) and 1926.451(a)(18) are enforced in accordance with E. of this instruction.
- D. Federal Program Change.** This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:
 - 1. Ensure that this change is forwarded to each State designee.
 - 2. Explain the technical content of the change to the State designee as requested. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.
 - 3. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections and case file reviews) shall also be used to determine if this change has been implemented in actual performance.
- E. Guidelines.**
 - 1. 29 CFR 1926.451(w)(1) states in part that float or ship scaffolds shall not be used to support more than three men and a few light tools, such as those needed for riveting, bolting, and welding. Therefore, welding on the scaffolds is allowed, provided the supporting rope is free from defects.
 - 2. 29 CFR 1926.451(w)(5) allows employers to use float or ship scaffolds supported with 1-inch diameter manila rope or equivalent, free from deterioration, chemical damage, flaws or other imperfections. Each employee shall be protected by an approved safety life belt and lifeline, in accordance with 29 CFR 1926.451 (w)(6).
- F. Background.** 29 CFR 1926.451(a)(18) requires that no welding, burning, riveting, or open flame work shall be performed on any staging suspended by means of fiber or synthetic rope. However, 1926.451(a)(18) refers to 1926.451(w) for specific requirements for float or ship scaffolds, which clearly contemplates that welding will be performed from float or ship scaffolds. Thus, welding from float or ship scaffolds is not forbidden by OSHA's regulations. However, 29 CFR 1926.451(w)(5) requires that supporting ropes shall be 1-inch diameter manila rope or equivalent, free from deterioration, flaws or other imperfections.

RECORD ID**1544**

**STANDARD NUMBER
INFORMATION DATE****1926.451(a); 1910.28(g); 1910.66
850802**

ABSTRACT

This interpretation letter addresses fall protection for employees engaged in erecting or dismantling scaffolds in the construction industry. It is not the intent of the construction scaffold standards to require specifically that employees who erect or dismantle scaffolds use a safety belt and lanyard at all times. However, employees should wear safety belts and lanyards when practical.

(NOTE: The last paragraph refers to a revised standard that would clarify fall protection. Section (a)(3) of the standard provides that no scaffolding shall be erected, moved, dismantled, or altered except under supervision of competent persons; there is no mention of fall protection.)

INTERPRETATION**29 CFR 1926.451(a); 1910.28(g); 1910.66****August 2, 1985****MEMORANDUM FOR: All Regional Administrators****SUBJECT: Fall Protection for employees engaged in erecting or dismantling scaffolds in the Construction Industry**

It is not the intent of the construction scaffold standards to specifically require employees who erect or dismantle scaffolds to use a safety belt and lanyard at all times. However, employees erecting or dismantling scaffolds must wear safety belts and lanyards in performing work at a stationary location for a period of time which allows the practical use of safety belts and lanyards. It is OSHA's position that requiring the constant wearing of belts and lanyards while erecting or dismantling scaffolds could be hazardous to employees.

The Directorate of Safety Standards Programs anticipates publishing a new proposal for Subpart L - Ladders and Scaffolding later this year. The fall protection proposed for employees erecting/dismantling scaffolds will be specifically included in that proposal and the text contains a provision which will exempt employees engaged in erecting or dismantling scaffolds from using any fall protection.

RECORD ID 2266

STANDARD NUMBER 1926.451(a)(4)
INFORMATION DATE 830311

ABSTRACT This clarification of 29 CFR 1926.451(a)(4) applies to scaffold heights under 10 feet. Guardrails are not required for scaffolds with a height under 10 feet and with a horizontal dimension in either direction greater than 45 inches, except when the scaffold is adjacent to dangerous equipment and similar hazards.

(NOTE: This standard has not been amended since 1974.)

INTERPRETATION 29 CFR 1926.451(a)(4)

MAR 11, 1983

MEMORANDUM

SUBJECT: Clarification of 29 CFR 1926.451(a)(4) Relative to Scaffold Heights Under Ten (10) Feet

This memorandum was prepared in response to your written request of March 3, 1983 for clarification of Construction Standard 1926.451(a)(4) which requires standard guardrails on scaffolds 4 to 10 feet in height and having minimum horizontal dimension in either direction of less than 45 inches.

The National Office of Compliance Programming interpretation is that the particular vertical standard for scaffolds applies in this case. Examination of 1926.451(a) for Tubular Welded Frame Scaffolds (The Bailey scaffold appears to be this type) indicates that no minimum dimension of scaffold is specified and there is no guardrail requirement for scaffolds under 10 feet in height.

Thus, the Regional Office interpretation is that guardrails are not required for the subject scaffold for heights under 10 feet, except for adjacent dangerous equipment and similar hazards. If you have additional questions please contact Mr. T in the Technical Support Group of this office.

RECORD ID 1273

STANDARD NUMBER 1926.451(a)(13); 1926.1053(a)
INFORMATION DATE 830225

ABSTRACT This interpretation letter addresses ladder use with scaffolding. Safe access other than by ladder is acceptable during assembly and disassembly of scaffolds. Scaffold end frames are acceptable access if the rungs designed for this purpose are continuous and evenly spaced not exceeding 16 1/2 inches. Ladder and fixed ladder standards do not apply to scaffolds. Portable wood or metal ladders used for access shall comply with 1926.450.

(NOTE: This standard has not been amended since 1974.)

INTERPRETATION 29 CFR 1926.451(a)(13); 1926.1053(a)

February 25, 1983

This is in response to your letter of February 8, 1983, requesting a clarification of 29 CFR 1926.451(a)(13). The response to your five points is as follows:

1. It is not practical or intended that employers provide ladder access at all times for employees assembling or dismantling scaffold components; however, other safe access must be provided.
2. End frames are acceptable for access if the rungs are designed by the scaffold manufacturer as an access ladder, and they are arranged in such a way that they form a continuous series of steps from the scaffold top to its bottom. Maximum spacing between rungs shall not exceed 16 1/2 inches.
3. Portable wood or metal ladders used to provide safe access must comply with 29 CFR 1926.450(a)(3) and (4).
4. The fixed ladder standards do not apply to scaffolds.
5. The ladder standards do not apply to scaffold structures when they are built into the scaffold components.

RECORD ID 1790

STANDARD NUMBER 1926.451(c)
INFORMATION DATE 860905

ABSTRACT This interpretation letter clarifies 1926.451(c) concerning the intermingling of tube and coupler scaffold components. The standard for scaffolds does not prohibit the utilization of scaffolding components manufactured by two different companies provided the scaffold complies with all of the applicable regulations in 1926.451 when used by employees.

(NOTE: This standard has not been amended since 1974.)

INTERPRETATION 29 CFR 1926.451(c)

SEP 5, 1986

This is in response to your letter of July 30, requesting a clarification of 29 CFR 1926.451(c) concerning the intermingling of tube and coupler scaffold components. Your letter addressed to our (city) Area Office was forwarded to this office for response.

The occupational safety and health standard for scaffolds do not prohibit the utilization of scaffolding components manufactured by two different companies provided the scaffold complies with all of the applicable regulations in 29 CFR 1926.451 when used by employees.

RECORD ID 1447

STANDARD NUMBER 1926.451(c)(13); (d)(10); (a)(5)
INFORMATION DATE 790705

ABSTRACT This interpretation letter addresses height requirements for guardrails and guidance on cross bracing. The height of guardrails will be approximately 42 inches. Cross bracing of a platform's open side does not provide the equivalent protection of a guardrail.

(NOTE: This standard was last amended in 1974.)

INTERPRETATION 29 CFR 1926.451(c)(13); (d)(10); (a)(5)

July 5, 1979

MEMORANDUM

SUBJECT: Clarification of 29 CFR 1926.451(c)(13) and (d)(10)

Generally, the approximate 42 inch height requirement for guardrails means 42 inches plus or minus 3 inches, however, the top rail may be higher with the inclusion of an additional midrail. The open side of a platform is one unprotected by guardrails or equivalent protection. Cross bracing installed at the open side of a platform does not provide the equivalent protection of a guardrail, therefore it is still considered an open side.

RECORD ID 1707

STANDARD NUMBER 1926.451(c)(12); (d)(7)
INFORMATION DATE 831013

ABSTRACT This interpretation letter applies to free standing scaffold. Such scaffold shall be considered safe when the total height is equal to or less than four times the minimum or least base dimension. 1926.451(d)(7) requires the scaffold to be secured to the building or structure at intervals not to exceed 30 feet horizontally and 26 feet vertically to prevent movement of the scaffold. The Directorate of Field Operation has notified the OSHA field staff that a free standing scaffold shall be considered safe when the total height is equal to or less than four times the minimum or least base dimension.

(NOTE: This standard was last amended in 1974.)

INTERPRETATION 29 CFR 1926.451(c)(12); (d)(7)

OCT 13, 1983

This is in response to your letter of September 28, 1983, concerning a possible misinterpretation of our scaffold standards.

29 CFR 1926.451(d)(7) requires the scaffold to be secured to the building or structure at intervals not to exceed 30 feet horizontally and 26 feet vertically to prevent movement of the scaffold. The Directorate of Field Operation has notified the OSHA field staff that a free standing scaffold shall be considered safe when the total height is equal to or less than four times the minimum or least base dimension.

SOURCE LETTER

September 28, 1983

Subject: Request for Program Directive

The organization is comprised of manufacturers of scaffolding, shoring and forming equipment. The main purpose of the (organization) is to promote the safe use of that equipment. The institute accomplishes that function through the development of various safety publications, as well as serving on various ANSI Committee such as A10.8 of which we are Secretariat.

We have recently been apprised of a possible misinterpretation of OSHA Part 1926.451(d)(7): (company), a (state) contractor, was cited by OSHA for not tying in scaffold that was in excess of 30 feet in length.

Mr. B, a (state) Hearing Officer, referred to the Texas Masonry Decision regarding the same Section and gave an interpretation as follows:

"A reading of the Standard indicated clearly that scaffold 2 feet high and 30 feet long would have to be secured to the building as the scaffold 26 feet wide and 26 feet tall."

While not contesting the citation further, (company) did request an interpretation from the (city) Region office. Mr. B of the office responded as follows:

"Consensus recommend that an unsecured, free standing scaffold be considered safe only when the total height is equal to or less than four times its minimum or least base dimension (width)."

Mr. B's interpretation, we feel is correct. Additionally, in the latest draft revisions to the Tube and Coupler Scaffold Section of ANSI A10.8, this situation is dealt with by the following language.

"Anchor running scaffold to the wall or structure when the height exceeds four times the minimum scaffold base dimension. The first vertical and longitudinal tie shall be placed at this point. Vertical ties

shall repeated at intervals not greater than 26 feet. The top shall be placed no lower four times the base dimension from the top of the completed scaffold. Longitudinal ties shall be placed at each end and at intervals not greater than 30 feet. Anchors must prevent the scaffold from tipping into or away from the wall or structure."

To clarity and further misinterpretations, the (organization) is requesting that a OSHA program directive be issued along the lines of the (city) Regional offices interpretation.

We would be pleased to assist in any fashion or answer any additional questions you may have regarding this request. Copies of pertinent information are enclosed.

RECORD ID 1805

STANDARD NUMBER 1926.451(l)(2)
INFORMATION DATE 850304

ABSTRACT This interpretation letter addresses requirements for hangers for two-point suspension scaffolds. Hangers of two-point suspension scaffolds shall be made of mild steel, or other equivalent materials, having a cross-sectional area capable of sustaining 4 times the maximum rated load, and shall be designed with a support for guardrail, intermediate rail, and toe board. Hangers should be designed, fabricated, and inspected under the direction of a qualified person or engineer. Hangers may be load tested to 1-1/2 times the maximum rated load.

(NOTE: This standard was last amended in 1974).

INTERPRETATION 29 CFR 1926.451(l)(2)

MAR 4, 1985

This is in response to your letter of January 11, 1985, requesting a clarification of the safety requirements for two-point scaffolding in the construction standards.

29 CFR 1926.451(l)(2) requires that the hangers of two-point suspension scaffolds shall be made of mild steel, or other equivalent materials, having a cross-sectional area capable of sustaining 4 times the maximum rated load, and shall be designed with a support for guardrail, intermediate rail, and toe board.

The construction scaffolding standards do not specifically address the conditions mentioned in your letter. However, we will offer our guidance in this matter as follows:

- o A hanger should be designed by a qualified person or engineer.
- o The hanger should be fabricated, inspected, and verified that it meets the design by a qualified person or engineer.
- o The hanger is ready for use after passing inspection by a qualified person or engineer and being verified that it meets design criteria.
- o Hangers should not be load tested to 4 times the maximum rated load before being used at the job site. This type of load testing could fatigue the hanger and cause a failure of the hanger at a later date. Hangers may be load tested to 1-1/2 times the maximum rated load (uniform load) before using at the job site without any damage to the hanger.

RECORD ID 1781

STANDARD NUMBER 1926.451(i)(8)
INFORMATION DATE 861030

ABSTRACT This interpretation letter clarifies 1926.451(i)(8). 1926.451(i)(8) requires each employee to have an approved life belt and lifeline when working from a tow point suspension scaffolding. The standard does not allow two or more employees to use a common lifeline.

(NOTE: This standard was last amended in 1974.)

INTERPRETATION 29 CFR 1926.451(i)(8)

OCT 30, 1986

This is in response to Mr. F's letter of October 14, 1986, requesting a clarification of 29 CFR 1926.451(i)(8) in our construction standards. Mr. F asked that our response be mailed to you.

29 CFR 1926.451(i)(8) requires that each employee shall be protected by an approved safety belt and attached to a lifeline. The lifeline shall be securely attached to substantial member of the structure (not scaffold), or to securely rigged lines which shall safely suspend the employee in case of a fall. We interpret the above mentioned requirement to mean that each employee must have an approved life belt and lifeline. 29 CFR 1926.451(i)(8) does not allow two or more employees to use a common lifeline.

RECORD ID 2075

STANDARD NUMBER 1926.451(s)(5)
INFORMATION DATE 840716

ABSTRACT A ladder jack scaffold with a platform width of 12 inches is a de minimis violation assuming employees working 10 or more feet above the ground are protected by standard guardrails or wear appropriate fall protection equipment. The lanyard and fall prevention devices must be suspended or secured from a structural member other than the scaffold.

(NOTE: This standard has not been amended since 1974. The sections referenced in the first interpretation letter do not agree with the section designations in the 1990 edition of Title 29 CFR.)

INTERPRETATION 29 CFR 1926.451(s)(5)

July 16, 1984

This is in response to your correspondence of June 15, 1984, making application for a variance of 29 CFR 1926.451(s)(5). Your letter was forwarded to this office for a clarification of the above mentioned requirement.

29 CFR 1926.451(a)(5) requires that wood platform planks shall be not less than 2 inches nominal in thickness. Both metal and wood platform planks shall overlap the bearing surface not less than 12 inches. The span between supports for wood shall not exceed 8 feet. Platform width shall be not less than 18 inches.

The width of the platform for your ladder jack scaffold is 12 inches. When your employees are working on your ladder jack scaffold 10 feet or more above the ground or floor if they are protected by standard guardrails or each employee wears a safety belt tied to a lanyard and fall prevention device that will limit the fall to 6 feet the violation would be a de minimis violation. However, the lanyard and fall prevention device must be secured to a structural member other than the scaffold or attached to a lifeline suspended from a structural member other than the scaffold.

De minimis violations are technical violations of standards which have no direct or immediate relationship to safety and health. Whenever de minimis conditions are found during an inspection, they are documented in the same way as any other violations, but a de minimis notice is not issued and penalties are not proposed.

SOURCE LETTER

June 15, 1984

Re: Request for Variance

Pursuant to the provisions of Section 6 of the Act and 29 U.S.C. section 1905.10 et seq., (company) , of the above address, hereby makes application for a variance of the following standard: 29 C.F.R. section 1926.451(s)(5) concerning the necessity for the width of the platform for the ladder jack scaffold to be 18".

The name and address of applicant is listed above. The applicant is a sole proprietorship, and a small businessman, who installs new roofs and sidings on residential homes. Commercial buildings are not done. Only a few employees work for the employer in addition to the owner himself. The work sites are generally in (county), (state) and vary with whose house is being worked on.

The variances sought for the standard pertain to the width of platforms or ladders, and ladder jack scaffolds.

Attached hereto is a representation of a qualified person having firsthand knowledge of the facts represented, that applicant is unable to comply with the standard or portion thereof and acknowledging this detailed statement of the reasons therefore.

The following is a statement of the steps the applicant has taken and will take, with specific dates where appropriate, to protect employees against the hazard covered by the standard. The width of the platform for the ladder jacks applicant uses is 12 inches. This is the limit that can be used safely on the job. I have good class A ladders and the bearing surface on the ladder jacks is 10-1/8 inches. I cannot use pipe scaffold, since I cannot compete with other siding contractors as it would take too long to put it up, plus customers would not allow their yards to be torn up by this method. Also, many times there are porches, awnings and steps in the way. I will set guardrails on the platform when it is more than ten feet above ground. No hired employee will be allowed to work over 20 feet on the ladder jack scaffold. This will take effect immediately. We have met and discussed this matter with Mr. V and Mr. M of the (city), (state) office of OSHA who understand the problems and have conferred with me about the variance.

The applicant is unable to comply with the standard because of unavailability of materials and equipment needed to come into compliance with the standard, as mentioned above.

Applicant is taking all available steps as set forth above to safeguard his employees against the hazards covered by the standards.

Applicant requests a hearing on the above variance.

Applicant has informed any affected employees of the application by posting a statement giving a summary of the application and specifying that a copy of the application may be examined at the place or places where notice to employees are normally posted.

The employees have been informed of the application and of their right to petition the Assistant Secretary for a hearing.

APPLICATION FOR INTERIM ORDER

For all of the reasons set forth above, application is also made for an Interim Order to be effective until a decision is rendered on the application for the variance currently filed herewith. All of the statements applicable to the permanent variance request are incorporated herein.

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DOE Interpretations Guide to OSH Standards

July 1, 1992

RECORD ID 92050502

STANDARD NUMBER 1926.451(a)(7)
INFORMATION DATE 19920505

ABSTRACT This is a response to February 24 letter requesting OSHA interpretation to the outrigger design ratio for suspended power hoists. The policy is as follows: The 4:1 design ratio required by 29 CFR 1926.451(a)(7) also applies to outrigger beam installations. The 4:1 design ratio must be applied to the rated load capacity of the hoist on those installations where there are architectural features or other obstructions which the scaffold could catch and "hang up" on when ascending.

INTERPRETATION 29 CFR 1926.451(a)(7)

May 5, 1992

Dear Mr. S:

This is in response to your February 24 letter requesting the Occupational Safety and Health Administration (OSHA) to review its interpretation relating to the outrigger design ratio for suspended power hoists. I apologize for the delay in responding to your letter.

In your letter, you point out that the 4:1 overturning moment design ratio should not be applied to the stall capacity of hoists because Underwriters Laboratory (U.L.) Standard 1323 already limits stall capacity to three times the rated load of hoists. Therefore, a rigging system designed to support four times the rated load of the hoist would also be able to support a force limited to only three times the rated load. Your comments have been reviewed and we agree that there is no need to apply the 4:1 ratio to the stall capacities of hoists.

Accordingly, our November 21, 1991, letter to Mr. R. H. is hereby rescinded and the policy is restated to read as follows: The 4:1 design ratio required by 29 CFR 1926.451(a)(7) also applies to outrigger beam installations. With respect to power hoists, the 4:1 design ratio must be applied to the rated load capacity of the hoist on those installations where there are architectural features or other obstructions which the scaffold could catch and "hang up" on when ascending. Thus, for purposes of illustration, in a situation where the maximum intended load to be applied to a hoist is, say, 500 pounds, the hoist has a rated load capacity of 1000 pounds, and there are no potential points which the scaffold could catch and "hang up" on, then the outrigger beam installation must be designed for a minimum 2000 pound loading. However, if obstructions are present, then the system must be designed for a minimum 4000 pound loading.

We appreciate your comments and apologize for any inconvenience our earlier letter may have caused. A copy of this letter will be sent to Mr. H. If you have further questions, please contact Mr. R. G. or Mr. D. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

RECORD ID 92050503

STANDARD NUMBER 1926.451(a)(7)
INFORMATION DATE 19920505

ABSTRACT This is a clarification of a November 21 response to a September 20 letter addressing the Roof Car suspended scaffold. Our November 21, 1991, letter is rescinded and the policy is restated to read as follows: The 4:1 design ratio required by 29 CFR 1926.451(a)(7) also applies to outrigger beam installations. With power hoists, the 4:1 design ratio must be applied to the rated load capacity of the hoist on those installations where there are architectural features or other obstructions which the scaffold could catch and "hang up" on when ascending.

INTERPRETATION 29 CFR 1926.451(a)(7)

May 5, 1992

Dear Mr. H:

This is a clarification of our November 21 response to your September 20 letter addressing the Roof Car suspended scaffold manufactured by your company.

After receiving a copy of our letter to you, Mr. V. S., Executive Vice President of the Scaffold Industry Association, pointed out to us that the 4:1 overturning moment design ratio should not be applied to the stall capacity of hoists because Underwriters Laboratory (U.L.) Standard 1323 already limits stall capacity to three times the rated load of hoists. Therefore, a rigging system designed to support four times the rated load of the hoist would also be able to support a force limited to only three times the rated load. Mr. S's comments have been reviewed and we agree that there is no need to apply the 4:1 ratio to the stall capacities of hoists.

Accordingly, our November 21, 1991, letter to you is hereby rescinded and the policy is restated to read as follows: The 4:1 design ratio required by 29 CFR 1926.451(a)(7) also applies to outrigger beam installations. With respect to power hoists, the 4:1 design ratio must be applied to the rated load capacity of the hoist on those installations where there are architectural features or other obstructions which the scaffold could catch and "hang up" on when ascending. Thus, for purposes of illustration, in a situation where the maximum intended load to be applied to a hoist is, say, 500 pounds, the hoist has a rated load capacity of 1000 pounds, and there are no potential points which the scaffold could catch and "hang up" on, then the outrigger beam installation must be designed for a minimum 2000 pound loading. However, if obstructions are present, then the system must be designed for a minimum 4000 pound loading.

We apologize for any inconvenience our earlier letter may have caused. If you have further questions, please contact Mr. R. G. or Mr. D. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

RECORD ID

92062403

STANDARD NUMBER
INFORMATION DATE

1926.451(e)(8); 1910.29(a)(4)(ii)
19920624

ABSTRACT

This letter of clarification of the Occupational Safety and Health Administration (OSHA) regulations for scaffold casters. The current OSHA standards at 29 CFR 1910.29(a)(4) require that "All scaffold casters shall be provided with a positive wheel and/or swivel lock to prevent movement". OSHA's policy on the locking of casters and wheels, 29 CFR 1926.451(e)(8), states that manually propelled mobile scaffolds "in use by any persons shall rest upon a suitable footing and shall stand plumb. The casters or wheels shall be locked to prevent any movement".

INTERPRETATION

29 CFR 1926.451(e)(8); 1910.29(a)(4)(ii)

June 24, 1992

Dear Mr. B:

This is in response to your letter of April 21, in which you request clarification of the Occupational Safety and Health Administration (OSHA) regulations for scaffold casters. I apologize for the delay in responding to your inquiry.

You are correct that current OSHA standards at 29 CFR 1910.29(a)(4) require that "All scaffold casters shall be provided with a positive wheel and/or swivel lock to prevent movement". This is a general industry provision that has been identified by OSHA as being applicable to the construction industry, and the plain reading of the provision shows that caster brakes, which lock the wheel only, meet the requirement. This language was incorporated into the 1986 Notice of Proposed Rulemaking for scaffolds used in construction (51 FR 42680 at 42711).

In regard to OSHA's policy on the locking of casters and wheels, please be advised that 29 CFR 1926.451(e)(8), in effect since 1971, states, in relevant part, that manually propelled mobile scaffolds "in use by any persons shall rest upon a suitable footing and shall stand plumb. The casters or wheels shall be locked to prevent any movement".

If you have any questions, please contact Mr. R. G. or Mr. D. C. of my staff in the Office of Construction and Maritime Compliance Assistance (202) 523-8136.

SOURCE LETTERS

April 21, 1992

Dear Ms. C,

We have a problem we hope you will solve for us by sending your Field Compliance Officer a letter of clarification.

The problem is the interpretation of Federal O.S.H.A. Standards for scaffold casters which some officers choose to make which is different than the interpretation we have relied upon for 15 years; copies of the Standards are enclosed. The long standing interpretation has been that scaffold casters brakes which lock the wheel only meet the Federal O.S.H.A. Standard. Through the years, and within the last six months, I have received verbal confirmation from Federal O.S.H.A. that this interpretation is correct and no changes were being considered.

The historic reasons for this acceptable interpretation are that workmen using scaffolds do not use the wheel lock brakes they already have because the near constant up and down moves to lock and unlock scaffold caster brakes takes otherwise productive time and costs them money. This extra movement also tires them out which introduces a new hazard into the use of scaffolds, "the fatigue factor".

In use today there are in excess of 1,000,000 scaffold casters with brakes which lock the wheel only and more being shipped everyday. If we must replace these casters with new casters with brakes which lock both wheel and swivel it will cost the construction industry in excess of \$35,000,000. If the orders were placed today it will take about five months for the caster manufactures to ship the replacements.

Any person or group that tries to make the work place safer has our complete and unqualified support. O.S.H.A. has the legislative and police powers to make this happen and we ask only that their standards contribute to a safer work place, be written clearly, not subject to interpretation, and uniformly enforced. The 5th and 14th Amendments to the Constitution guarantee this under the sections devoted to "Due Process".

As we understand it, the basis for the independent decisions being made about scaffold caster brakes is a 1988 A.N.S.I. Standard (copy enclosed) which says casters must have both wheel and swivel brakes. Their Charter (copy enclosed) clearly states they have no legislative or police powers and are merely publishing their private opinions. Why they would adopt a Standard requiring a scaffold caster with a brake system perceived to be safer when the workmen do not use the brakes they already have is beyond my understanding.

We ask that you advise your Compliance Officers they cannot and must not enforce laws not in their Book of Standards and where a Standard is unclear, they must use the accepted interpretation. We will appreciate any help you will give us to clear up this confusing situation and would also appreciate receiving a copy of your letter.

RECORD ID

92072004

**STANDARD NUMBER
INFORMATION DATE**

**1926.451(s)(5); (y)(11)
19920720**

ABSTRACT

The minimum platform width for ladder jack scaffolds is specified to be 18 inches. The use of a body harness fall protection systems allows for platform width to be reduced to 12-18 inches. When platforms 12-18 inches wide are used OSHA can site a de minimis violation. The 1926.451(x)(11) standard width. However, it does require guardrails or safety belts with lifelines width of platforms.

INTERPRETATION

29 CFR 1926.451(s)(5); (y)(11)

July 20, 1992

Dear Mr. D:

This is in response to your letter of May 8 in which you requested an interpretation of the Occupational Safety and Health Administration(OSHA) rules pertaining to the widths of platforms on ladder jack scaffolding and pump jack scaffolding. I apologize for the delay in responding to your inquiry.

The minimum platform width for ladder jack scaffolds is 18 inches as set forth in 29 CFR 1926.451(s)(5). The purpose of this width is to provide a suitably wide platform to minimize the likelihood of an employee misstepping and falling off the scaffold. This is especially important as ladder jack scaffolds often cannot be fitted with guardrails. The 1986 Notice of Proposed Rulemaking (NPRM) for scaffolds recognizes both the difficulty of maneuvering a single piece 18-inch wide platform (or two nine- inch wide platform pieces) into place on a ladder jack, and the benefits of using a body harness fall protection system. Consequently, it was proposed that a platform width of only 12 inches is appropriate to minimize the construction difficulties when the fall protection concerns of a narrow platform are properly addressed by using a body harness system. Therefore, although a final rule has not yet been fully developed, it is the policy of OSHA to recognize the use of 12- to 18-inch platforms on ladder jack scaffolds to be a de minimus violation of 29 CFR 1926.451(s)(5) when employees on the scaffold are protected by body harness fall protection systems.

In regard to pump jack scaffolds, the existing rules do not specify a minimum width for the platform, however, the proposed rules would require a minimum width of 18 inches. The current rules at 29 CFR 1926.451(y)(11) require all pump jack scaffolds to be provided with guardrails or employees provided with "safety belts with lifelines".

If you have additional questions, please contact Mr. R. G. or Mr. D. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

RECORD ID 92072001

STANDARD NUMBER 1926.451(a)(4); (a)(1); (f)(a)(13); (e)(5); (u)(3); 1926.50(c); 1926.105;
1926.556(b)(2)(v)
INFORMATION DATE 19920720

ABSTRACT First aids kits must be available to first aiders. Makeshift scaffolds less than 45 inches wide must have guarding. Ladders are recommended whenever feasible. Body belt/harness systems are not required on scissor lifts. Body belt/harness systems are only required for extensible and articulating boom supported platforms 14 inches is the maximum open space distance before guardrails are required. Rest platforms are not required except in the case of mobile scaffolds.

INTERPRETATION 29 CFR 1926.451(a)(4); (a)(1); (f)(a)(13); (e)(5); (u)(3); 1926.50(c); 1926.105; 1926.556(b)(2)(v)

July 20, 1992

This is in response to your November 20, 1991, memorandum requesting information and interpretations on eight construction issues. I apologize for the delay of this response.

1. First aid kits must be available for each shift of operation in all situations where a first aider is required to be present by the provisions of 1926.50(c). A trained first aid provider must have the proper supplies in order to render effective first aid.
2. The requirement for guarding scaffolds that are less than 45 inches (1.14m) wide applies to the working/walking platform, not the frame upon which the platform rests. However, please be advised that the requirement applies only to makeshift scaffolds. The requirement does not apply to the types of scaffolds addressed by 1926.451(b) through (y). This is clarified in the 1986 notice of proposed rulemaking (NPRM) for Subpart L--Scaffolds used in Construction (51 FR 42680).
3. Although the existing regulations, the 1988 ANSI rules, and the 1986 proposed OSHA rules do not require the use of ladders during erection and dismantling operations, it is strongly recommended that ladders be used whenever feasible. To this end, scaffold frame ladders meeting the criteria set out in the 1986 NPRM, would be acceptable for use as ladders.
4. Body belt/harness systems are not required on scissor lifts. (Please be advised that these types of scaffolds are now addressed by ANSI A 92.3-1990).
5. The body belt/harness systems requirement is limited to only extensible and articulating boom supported platforms as covered by ANSI A 92.2-1990.

The illustration submitted in your letter that shows a "self-propelled aerial platform with articulating boom" is taken from the SIA Handbook. Mr. V. S. of the SIA has stated that the illustration is misnamed and the platform shown as item E should not be identified as an articulating boom. This office agrees. However, whatever the proper name, the key to the application of .556(b)(2)(v) is whether or not the entire boom mounted platform can be positioned outside the wheel base. If so, then body belt/harness systems are required. The system shown in your example cannot be so positioned.

RECORD ID

92072004

**STANDARD NUMBER
INFORMATION DATE**

**1926.451(s)(5); (y)(11)
19920720**

ABSTRACT

The minimum platform width for ladder jack scaffolds is specified to be 18 inches. The use of a body harness fall protection systems allows for platform width to be reduced to 12-18 inches. When platforms 12-18 inches wide are used OSHA can cite a de minimis violation. The 1926.451(x)(11) standard width. However, it does require guardrails or safety belts with lifelines width of platforms.

INTERPRETATION

29 CFR 1926.451(s)(5); (y)(11)

July 20, 1992

Dear Mr. D:

This is in response to your letter of May 8 in which you requested an interpretation of the Occupational Safety and Health Administration(OSHA) rules pertaining to the widths of platforms on ladder jack scaffolding and pump jack scaffolding. I apologize for the delay in responding to your inquiry.

The minimum platform width for ladder jack scaffolds is 18 inches as set forth in 29 CFR 1926.451(s)(5). The purpose of this width is to provide a suitably wide platform to minimize the likelihood of an employee misstepping and falling off the scaffold. This is especially important as ladder jack scaffolds often cannot be fitted with guardrails. The 1986 Notice of Proposed Rulemaking (NPRM) for scaffolds recognizes both the difficulty of maneuvering a single piece 18-inch wide platform (or two nine- inch wide platform pieces) into place on a ladder jack, and the benefits of using a body harness fall protection system. Consequently, it was proposed that a platform width of only 12 inches is appropriate to minimize the construction difficulties when the fall protection concerns of a narrow platform are properly addressed by using a body harness system. Therefore, although a final rule has not yet been fully developed, it is the policy of OSHA to recognize the use of 12- to 18-inch platforms on ladder jack scaffolds to be a de minimus violation of 29 CFR 1926.451(s)(5) when employees on the scaffold are protected by body harness fall protection systems.

In regard to pump jack scaffolds, the existing rules do not specify a minimum width for the platform, however, the proposed rules would require a minimum width of 18 inches. The current rules at 29 CFR 1926.451(y)(11) require all pump jack scaffolds to be provided with guardrails or employees provided with "safety belts with lifelines".

If you have additional questions, please contact Mr. R. G. or Mr. D. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

RECORD ID 92072001

STANDARD NUMBER 1926.451(a)(4); (a)(1); (f);(a)(13); (e)(5); (u)(3); 1926.50(c); 1926.105;
1926.556(b)(2)(v)
INFORMATION DATE 19920720

ABSTRACT First aids kits must be available to first aiders. Makeshift scaffolds less than 45 inches wide must have guarding. Ladders are recommended whenever feasible. Body belt/harness systems are not required on scissor lifts. Body belt/harness systems are only required for extensible and articulating boom supported platforms 14 inches is the maximum open space distance before guardrails are required. Rest platforms are not required except in the case of mobile scaffolds.

INTERPRETATION 29 CFR 1926.451(a)(4); (a)(1); (f);(a)(13); (e)(5); (u)(3); 1926.50(c); 1926.105; 1926.556(b)(2)(v)

July 20, 1992

This is in response to your November 20, 1991, memorandum requesting information and interpretations on eight construction issues. I apologize for the delay of this response.

1. First aid kits must be available for each shift of operation in all situations where a first aider is required to be present by the provisions of 1926.50(c). A trained first aid provider must have the proper supplies in order to render effective first aid.
2. The requirement for guarding scaffolds that are less than 45 inches (1.14m) wide applies to the working/walking platform, not the frame upon which the platform rests. However, please be advised that the requirement applies only to makeshift scaffolds. The requirement does not apply to the types of scaffolds addressed by 1926.451(b) through (y). This is clarified in the 1986 notice of proposed rulemaking (NPRM) for Subpart L--Scaffolds used in Construction (51 FR 42680).
3. Although the existing regulations, the 1988 ANSI rules, and the 1986 proposed OSHA rules do not require the use of ladders during erection and dismantling operations, it is strongly recommended that ladders be used whenever feasible. To this end, scaffold frame ladders meeting the criteria set out in the 1986 NPRM, would be acceptable for use as ladders.
4. Body belt/harness systems are not required on scissor lifts. (Please be advised that these types of scaffolds are now addressed by ANSI A 92.3-1990).
5. The body belt/harness systems requirement is limited to only extensible and articulating boom supported platforms as covered by ANSI A 92.2-1990.

The illustration submitted in your letter that shows a "self-propelled aerial platform with articulating boom" is taken from the SIA Handbook. Mr. V. S. of the SIA has stated that the illustration is misnamed and the platform shown as item E should not be identified as an articulating boom. This office agrees. However, whatever the proper name, the key to the application of .556(b)(2)(v) is whether or not the entire boom mounted platform can be positioned outside the wheel base. If so, then body belt/harness systems are required. The system shown in your example cannot be so positioned.

6. The 1986 NPRM proposed a maximum distance of 14 inches (35.6 cm) of open space be allowed before guardrails are required. There were no comments to the record that indicated this limit should be changed. Although the 1988 ANSI standard recognizes a distance of 16 inches for supported scaffolds and 12 inches for suspension scaffolds, we are not aware of the justification and do not recognize those limits.
7. Paragraph 1926.105 can be cited if it is possible for an employee to fall from a steep sloped roof that has eaves less than 16 feet (4.9 m) above the ground, and ladders, scaffolds, catch platforms, temporary floors, or body belt/harness systems are not in use. However, given your example, if the fall is more likely to occur over the gable (sloped) edge rather than the eave, then 1926.105 would be more appropriate as 1926.451(u)(3) is intended for protection from falls over eaves which are more than 16 feet from the ground.

Steep roof fall hazards are more clearly addressed in the 1986 NPRM for Subpart M--Fall Protection (51 FR 42718).

8. Rest platforms for scaffold ladders are not required by the existing rules (except for mobile scaffolds), nor are they required by the 1988 ANSI standard for construction scaffolds. Whether or not there should be a rest platform requirement is an issue discussed in the 1986 NPRM.

RECORD ID 92080702

STANDARD NUMBER 1926.451(a)(4)
INFORMATION DATE 19920807

ABSTRACT This Interpretation is in response to OSHA's standard on guardrails on scaffolds less than 10 feet above the ground. 29 CFR 1926.451(a)(4) refers to this and is still in effect. The requirement for guardrails on scaffolds less than 10 feet above the ground or floor was omitted from the requirements for the types of scaffolds covered by each of the specific sections. The general requirement for guardrails on narrow scaffolds four to ten feet above the ground or floor only applies to scaffolds not addressed in paragraphs 451(b) through (y), such as make-shift or lean-to type platforms.

INTERPRETATION 29 CFR 1926.451(a)(4)

August 7, 1992

Dear Dr. A:

This is in response to your letters of June 18 and July 27 requesting an interpretation of an Occupational Safety and Health Administration (OSHA) standard addressing guardrails on scaffolds less than 10 feet above the ground or floor.

The interpretation of 29 CFR 1926.451(a)(4) contained in the March 24, 1983, memorandum to Mr. S. E. is accurate and still in effect. Please be advised that the general requirements listed at the beginning of Subpart L apply to all scaffolds unless specifically exempted or when the topic of concern is specifically addressed in the section for a particular type of scaffold. In regard to your specific inquiry, the requirement for guardrails on scaffolds less than 10 feet above the ground or floor was omitted from the requirements for the types of scaffolds covered by each of the specific sections. Therefore, the general requirement for guardrails on narrow scaffolds four to ten feet above the ground or floor only applies to scaffolds not addressed in paragraphs .451(b) through (y), such as make- shift or lean-to type platforms. For your information, we are enclosing a copy of a decision of the Occupational Safety and Health Review Commission (General Supply Company, Inc.) on this issue.

It should also be noted that in determining whether a scaffold is "more than 10 feet above the ground or floor," it is the falling distance and not the vertical dimension of the scaffold itself which is controlling. See enclosed copy of B. vs. S.- J., Inc., 777 F. 30 195 (5th Cir. 1985).

If we can be of any further assistance please do not hesitate to contact Mr. R. F. G. or Mr. D. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

RECORD ID 92091502

STANDARD NUMBER 1926.451(a)(7)
INFORMATION DATE 19920915

ABSTRACT This letter responds to a request for clarification relating to outrigger design strength ratio for suspended scaffold power hoists. The term "maximum intended load" should be read as "maximum rated load of the hoist: when applied to suspended scaffolds equipped with scaffold hoists. The danger of unintended overload of the outrigger system is always present.

INTERPRETATION 29 CFR 1926.451(a)(7)

SEP 15 1992

Dear Mr. S:

This is in response to your June 19 letter requesting the Occupational Safety and Health Administration (OSHA) to clarify further its interpretation relating to the outrigger design strength ratio for suspended scaffold power hoists. I apologize for the delay in responding to your letter.

We have reviewed your additional comments on this topic and agree that the safest interpretation of 29 CFR 1926.451(a)(7) is that the term "maximum intended load" be read as "maximum rated load of the hoist" when applied to suspended scaffolds equipped with scaffold hoists. Although many of the examples you gave are more likely to be found during maintenance operations than during construction, the danger of unintended overload of the outrigger system is always present. This could occur not only when an obstruction is unexpectedly encountered, but also when an employee is unaware that the outrigger system is sized for a small load and then overloads the scaffold by using the hoist or platform rated capacity as a guide.

If you have further questions, please contact Mr. R. G. or Mr. D. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

RECORD ID 92102802

STANDARD NUMBER 1926.451(s)(5); 1910.28(q)(5)
INFORMATION DATE 19921028

ABSTRACT This responds to a request of September 20 on standard requirements that would cover the LIBERATOR assist tool. Except for OSHA's requirements for ladder jack scaffolds, there are no specific requirements that apply to the design of this product. It is noted that this product would be manufactured out of plastic, and sunlight can have a deleterious effect over time on such materials. In regard to using this product as a ladder jack bracket, 1910.28(q)(5) and 1926.451(s)(5) both require ladder jack platforms to be not less than 18 inches wide. A de minimis exception to this rule could be made, if employees on the 12-inch platform are protected from falling by the use of properly secured body belt harness systems.

INTERPRETATION 29 CFR 1926.451(s)(5); 1910.28(q)(5)

OCT 28 1992

Dear Mr. A:

This is in response to your September 20 letter requesting the Occupational Safety and Health Administration (OSHA) to provide comments on your LIBERATOR assist tool. I apologize for the delay of this response.

With regard to what standards apply to your product, please be advised that except for OSHA's requirements for ladder jack scaffolds, there are no specific requirements that apply to the design of your product. We do note that you intend to manufacture your product out of plastic and wish to remind you of the deleterious effect sunlight can have over time on such materials. In regard to using your product as a ladder jack bracket, please be advised that 29 CFR 1910.28(q)(5) and 29 CFR 1926.451(s)(5) both require ladder jack platforms to be not less than 18 inches wide. A de minimis exception to this rule could be made, which means there would be no citation, no penalty, and no abatement date issued for violation of these rules, if employees on the 12-inch platform are protected from falling by the use of properly secured body belt/harness systems.

In response to your question about product approval, please be advised that the Occupational Safety and Health Administration does not approve nor endorse products. This is because the variable working conditions at jobsites and possible alterations or misapplication of an otherwise safe product could easily create a hazardous condition beyond the control of the manufacturer.

If we can be of any further assistance, please contact me or Mr. D. C. at (202) 219-8136.

RECORD ID

91120201

**STANDARD NUMBER
INFORMATION DATE**

1926.451 (l);1 926.651 (g)(2)(ii); 1926.550 (g)(4)
19911202

ABSTRACT

An interpretation letter addressing the use of boatswain chairs to enter drilled foundation shafts. OSHA's position on this subject is as follows: A boatswain chair suspended by reliable hoisting equipment utilizing an A-frame can be used by employees entering drilled foundation piers provided the applicable standards are met including the procedures outlined in 29 CFR 1926.451(l) and 1926.651(g)(2)(ii). However, if jobsite conditions prevent the use of A-frame equipment or the use of such equipment would be more hazardous than the use of a crane, a mobile crane can be used for this purpose provided the employees are lowered in a personnel platform meeting the requirements of 29 CFR 1926.550(g).

INTERPRETATION

29 CFR 1926.451 (l);1 926.651 (g)(2)(ii); 1926.550 (g)(4)

December 02, 1991

Dear Mr. L:

This is in response to your August 21 and September 25 letters regarding the Occupational Safety and Health Administration's (OSHA) policy addressing the use of boatswain chairs to enter drilled foundation shafts. I apologize for the delay in responding to your inquiry.

In regard to your request for any written exchanges that OSHA may have concerning this subject, please be advised that we have reviewed our files and have found no written responses addressing hoist facilities used for entering drilled piers. However, after a careful evaluation of your concerns, OSHA's position on this subject is as follows: A boatswain chair suspended by reliable hoisting equipment utilizing an A-frame can be used by employees entering drilled foundation piers provided the applicable standards are met including the procedures outlined in 29 CFR 1926.451(l) and 1926.651(g)(2)(ii). However, if jobsite conditions prevent the use of A-frame equipment or the use of such equipment would be more hazardous than the use of a crane, a mobile crane can be used for this purpose provided the employees are lowered in a personnel platform meeting the requirements of 29 CFR 1926.550(g).

I regret that this response did not reach you in time for your first meeting of the Task Force and that we were unable to participate. I trust you were able to acquire the necessary information from telephone conversations with my staff in the Office of Construction and Maritime Compliance Assistance. If we can be of any further assistance, please contact Mr. R. F. G. or D. R. C. of that staff at (202) 523-8136.

SOURCE LETTERS

September 25, 1991

Dear Mr. G.,

I am writing in regard to my letter to you dated August 21, 1991 (copy enclosed). In that letter, I expressed the ADSC's concern about certain ambiguities that exist in OSHA's Excavation Regulations as they relate to drilled shaft foundation construction and, specifically, as they apply to down-hole-entry.

As I noted, our industry is forming a Task Force to address these and related issues. The first formal meeting of this group will be on Friday, October 25, 1991, at 1:30 p.m. at the Harvey Suites Hotel near D/FW Airport in Dallas, Texas.

We had hoped to have had a response from your office regarding our intentions, which could be of assistance to the Task Force at its meeting. We would welcome the participation of a representative from your office at the Task Force meeting.

We look forward to your response to my letter of August 21st, and to our invitation for an OSHA representative to attend the meeting of our Task Force.

August 21, 1991

Dear Mr. G:

I am the Executive Director of the ADSC: The International Association of Foundation Drilling. The ADSC represents drilled foundation contractors, design engineers and manufacturers and suppliers of foundation drilling equipment.

We are informed that there have been verbal exchanges between various individuals of Region and Area Offices of the Occupational Safety and Health Administration and your office regarding the use of "Boatswain Chairs" suspended from cranes used in down hole entry, and further that your discussions at the Department of Labor have lead to the conclusion that such action would be a reason for citation of contractors who may conduct such operations.

May we first offer this correspondence as our request for copies of any written exchanges regarding the subject in order that we may be totally informed of your thinking and your actions.

We would like to proceed to advise you of the thinking and practice of our industry and our 700 company members from all over the United States, Canada, and several foreign countries.

We are currently forming a Task Force of contractors performing DS work in the United States to develop a "Safety Standard" for our industry. We are advised that such work was being carried out within the framework of the ANSI A-10 Committee. I personally met with Mr. I. M. of your office in 1983. We understand that his efforts in this regard go back to 1975, but that the work has never been finished.

In the meantime we suggest to you the following:

1. It is and has been the industry practice in DS construction work to enter "drilled piers" only when absolutely necessary and in compliance with design engineering requirements including geotechnical evaluations and requirements.
2. According to our industry standards, entry into any DS requires steel casing for support of the surrounding earth.
3. Ingress or egress requires cabled devices capable of moving light weight loads of less than 500 pounds through steel casing that has no obstructions. The steel casing offers a smooth surface along the sides of the traveled way.
4. Personal Protective Equipment (PPE) includes harness and lanyard at all times attended by a "top" man while the "hole" man is in the shaft.
5. We have learned over the past twenty years that there is cabled equipment that fully answers the safety and production needs of such entry into the shafts.

It should be understood that "platforms" cannot be used in DSW. Space constraints and the style of work will not permit such devices.

"Boatswain Chairs" can be used and are necessary. They are described by OSHA as "Single Point Adjustable Suspended Scaffolds" (1926.451(k)(1)). That standard requires 5/8-inch fiber rope construction of the device which we believe is exceeded by the use of "wire rope" cables and offers

safety factors many times greater. Those devices are already recognized by OSHA in various standards that involve underground utilities and entry into those much greater confined spaces that offer far more danger than DS.

When OSHA wrote "suspended platform" revisions to Subpart N (1926.550), cranes and Derricks) we did not believe it to be the intent of OSHA to address matters of DS Entry, and we therefore made no comment on platforms suspended above the earth as used by other fields of construction. The ingress and egress into a DS is quite different from that of a work platform where one or more employees may spend hours performing certain tasks and are moving about as they perform those tasks. We must repeat there is no work platform that can be used in DSs.

It is necessary for DS Contractors to maintain the option of using devices such as cranes or "A-Frames" or other reliable lifting equipment for entry to DSs. It is not reasonable to limit such equipment to devices capable of moving at extremely slow speeds with lifting capacities that are many times less than that of another piece of equipment. We further believe such action would greatly limit the Safety of employees trained and experienced in DS Entry, and would cause more hazards than those that may or may not be eliminated.

We offer you the vast knowledge and experience our industry has gained during the past thirty years as well as our expertise.

Again, we ask you to keep us informed of your policies and procedures with regards to the work of DSC.

RECORD ID 92012801

STANDARD NUMBER 1926.451(1);1926.651(g)(2)(ii);1926.550(g)(4)
INFORMATION DATE 19920128

ABSTRACT An interpretation letter addressing the use of cranes to lower employees into drilled pier foundations. OSHA's position as follows: A boatswain chair suspended by reliable hoisting equipment utilizing an A-frame can be used by employees entering drilled pier foundations provided the applicable standards are met including the procedures outlined in 29 CFR 1926.451(l) and 1926.651(g)(2)(ii). However, if jobsite conditions prevent the use of A-frame equipment or the use of such equipment would be more hazardous than the use of a crane, a mobile crane can be used for this purpose provided the employees are lowered in a personnel platform in accordance with the requirements of 29 CFR 1926.550(g).

INTERPRETATION 29 CFR 1926.451(1);1926.651(g)(2)(ii);1926.550(g)(4)

January 28, 1992

This is in response to your memorandum requesting an interpretation of the requirements addressing the use of cranes to lower employees into drilled pier foundations. I apologize for the delay in responding to your inquiry.

We have recently addressed this issue in a letter to the International Association of Foundation Drilling. In that letter, we stated OSHA's position as follows: A boatswain chair suspended by reliable hoisting equipment utilizing an A-frame can be used by employees entering drilled pier foundations provided the applicable standards are met including the procedures outlined in 29 CFR 1926.451(l) and 1926.651(g)(2)(ii). However, if jobsite conditions prevent the use of A-frame equipment or the use of such equipment would be more hazardous than the use of a crane, a mobile crane can be used for this purpose provided the employees are lowered in a personnel platform in accordance with the requirements of 29 CFR 1926.550(g).

We are aware that a standard personnel platform is often poorly designed to function well in a drilled pier application. However, we believe a platform could readily be designed that would comply with the requirements of 29 CFR 1926.550(g)(4) that would both provide protection for the employee entering the drilled pier and allow the necessary work to be performed.

In regard to whether there have been any variances granted by OSHA for similar activities, please be advised that we have no knowledge of any such variance being issued.

RECORD ID 92030501

STANDARD NUMBER 1926.451(a)(4), (a)(5), (a)(6)
INFORMATION DATE 19920305

ABSTRACT An interpretation letter whether a synthetic mesh fastened vertically between guardrail top rails and platform level runners, and horizontally between scaffold legs, would comply with 29 CFR 1926.451(a)(4), (5), and (6). As stated in the November 25, 1986 the proposed rules recognize that a screen of proper strength and installation may be used in lieu of a standard toeboard and midrail. Although not specifically recognized in the existing rules, a screen properly rigged according to the proposed rules would be an acceptable component of a guardrail system.

INTERPRETATION 29 CFR 1926.451(a)(4), (a)(5), (a)(6)

March 05, 1992

Dear Mr. P:

This is in response to your January 24 letter requesting the Occupational Safety and Health Administration (OSHA) to determine whether a synthetic mesh fastened vertically between guardrail top rails and platform level runners, and horizontally between scaffold legs, would comply with 29 CFR 1926.451(a)(4), (5), and (6). I apologize for the delay of this response.

As indicated in your letter, such a system has many benefits and is specifically recognized in the November 25, 1986 Notice of Proposed Rulemaking for scaffolds used in construction. The proposed rules address minimum required strength and installation concerns. In addition, the proposed rules recognize that a screen of proper strength and installation may be used in lieu of a standard toeboard and midrail. Although not specifically recognized in the existing rules, a screen properly rigged according to the proposed rules would be an acceptable component of a guardrail system.

If we may be of further assistance, please contact Mr. R. F. G. or Mr. D. C. in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

RECORD ID 92111901

STANDARD NUMBER 1926.451 (u)(3); 1926.105 (a)
INFORMATION DATE 19921119

ABSTRACT A memorandum which clarifies that 29 CFR 1926.451(u)(3) should be cited if the employee falls or slides-down the sloped portion of the roof and over the eaves. Section 1926.105(a) may be cited if the vertical fall distance from the gable end of the structure is greater than 25 feet.

INTERPRETATION 29 CFR 1926.451 (u)(3); 1926.105 (a)

November 19, 1992

This is in response to your August 1 memorandum requesting a clarification of the July 20 memorandum to the OSHA Training Institute (OTI) regarding the use of nets. Please be advised that the paragraph was written in response to a specific example set forth by the OTI, and a more generic answer is as follows:

There are two kinds of falls associated with sloped roofs. In the first kind, the employee falls or slides-down the sloped portion of the roof and over the eaves. In those fall hazard situations, 29 CFR 1926.451(u)(3) should be cited (not 1926.105(a)) if the eaves are more than 16 feet above the ground. In the second kind of fall, the employee falls from the gable end of the structure. In those situations, section .105(a) may be cited if the vertical fall distance is greater than 25 feet. Section 105(a) may be cited because we interpret 1926.451(u)(3) as addressing only the hazard of falls of the first type.

It should be noted, however, that any time 1926.105(a) is cited, OSHA must be prepared to show that the use of one of the other enumerated methods of fall protection was practical under the circumstances if it appears likely that the employer will be able to demonstrate the infeasibility of using nets.

OSHA Instruction STD 3-11.1

March 8, 1982

Subject: Safety Monitoring System As It Applies to 29 CFR 1926.500(g)(1)

- A. Purpose.** This instruction clarifies the use of a safety monitoring system to comply with 29 CFR 1926.500(g)(1).
- B. Scope.** This instruction applies OSHA-wide.
- C. Cancellation.** This directive cancels OSHA Instruction STD 3.2, dated December 1, 1981. The cancelled directive was erroneously classified, and this directive contains the same information under the proper classification.
- D. Action.** OSHA Regional Administrators/Area Directors shall take action to ensure that 29 CFR 1926.500(g)(1) is enforced in accordance with F. of this instruction.
- E. Federal Program Change.** This instruction describes a Federal program change which affects State Programs. Each Regional Administrator shall:
 - 1. Ensure that this change is forwarded to each State designee.
 - 2. Explain the technical content of the change to the State designee as requested.
 - 3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the States plan to implement the change or of the reasons why the change should not apply to that State.
 - 4. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections and case file reviews) shall also be used to determine if this change has been implemented in actual performance.
- F. Guidelines.**
 - 1. Complying with 29 CFR 1926.500(g)(1) requires the employer to designate a competent person as a monitor as defined in 29 CFR 1926.502(p)(7), capable of identifying and correcting roofing hazards.
 - 2. The individual designated to be monitor may be a supervisor or a worker engaged in the performance of built-up roofing work. The monitor must be trained and capable of identifying existing and predictable roofing conditions which are hazardous, or dangerous to roofing employees.
 - 3. The monitor must have authorization to take prompt corrective measures to eliminate the hazardous conditions. The monitor must be on the same roof as and be able to visibly observe all other employees for whom he/she is responsible and must also be close enough to verbally communicate with the employees.
- G. Background.** The standard for perimeter guarding of low-pitched roofs allows the use of a "safety monitoring system" under certain conditions. A question has arisen as to what extent a safety monitor might be engaged in the performance of other duties. The preamble to the new standard specifically allows monitors to have other duties but provides that these duties may not be so extensive that they encumber the monitor's duties as a monitor.

RECORD ID 1449

STANDARD NUMBER 1926.500(b)(8); 1910.502(a)
INFORMATION DATE 780414

ABSTRACT If a floor hole as defined in 1926.502(a) -- less than 12 inches but more than 1 inch -- is present, the requirements of 1926.500(b)(8) must be satisfied. The use of either standard railing and toe boards or a floor hole cover is permitted.

INTERPRETATION 29 CFR 1926.500(b)(8); 1910.502(a)

April 14, 1978

This is in response to your letter dated March 22, 1978, concerning the use of plywood decked (product).

The 2-3/4" x 2-3/4" notch cut into the plywood at each end of the (product) would be a floor hole as defined by 29 CFR 1926.502(a). Floor holes, into which persons can accidentally walk, need to be guarded by either a standard railing with standard toe board on all exposed sides, or a floor hole cover of standard strength and construction that is secured against accidental displacement as required by 29 CFR 1926.500(b)(8).

The above mentioned occupational safety and health standards and the interpretation of the codes mentioned in your letter confirm the need for a cover or equivalent protection to close the center notches at each end of the plank, when they are open.

RECORD ID 2469

STANDARD NUMBER 1926.500(d)(1); 1926.750(b)(1)(iii)
INFORMATION DATE 860213

ABSTRACT In situations where the employer has completed a structural steel assembly and is in the process of pouring concrete on the metal decking and other trades are working in the floor area, the floor guarding system must comply with 29 CFR 1926.500(d)(1) and (f)(1). Even though there is a guarding specification in 1926.750, the requirement in 1926.500 is safer.

(NOTE: The standard was last amended in 1980.)

INTERPRETATION 29 CFR 1926.500(d)(1); 1926.750(b)(1)(iii)

FEB 13, 1986

This is an update to our interim response of January 22 to your letter of December 31, 1985, concerning an October 1985 Occupational Safety and Health Administration (OSHA) inspection at one of your job sites. We have received a report from our (City) Regional Office on this subject.

We have reviewed the subject inspection with our (City) Regional Office and concur with their position of enforcing 29 CFR 1926.500(d)(1) rather than 29 CFR 1926.750(b)(iii) at your job site. In situations where the employer has completed the structural steel assembly and is in the process of pouring concrete on the metal decking and other trades are working on the floor area, the floor guarding system must comply with 29 CFR 1926.500(d)(1).

Compliance with 29 CFR 1926.750(b)(iii) does not provide protection equivalent to compliance with 29 CFR 1926.500(d)(1), and cannot qualify for a variance in these circumstances.

OSHA is taking every step possible to eliminate an adversarial relationship between the Agency and employers, within the guidelines of the Act. Our efforts involve a variety of approaches which have established new lines of communication between the business community and OSHA. We encourage you to contact our Omaha Area Office regarding any other questions or concerns you may have.

SOURCE LETTER

December 31, 1985

In October of 1985, one of (Company)'s job sites was inspected by OSHA, and was cited under Section 1926.500(d)(1). Although we have found it difficult to keep nylon rope from sagging, we believe that wire rope, when properly in place is adequate and in compliance with both the letter, and the intent of all applicable OSHA standards.

The situation in question concerns the steel erection phase of construction of a tiered building. After columns and beams are in place, the metal decking is installed promptly in order to comply with 1926.750(b)(1)(ii) concerning limiting fall distance. This decking must be installed on all floors, thus it is installed on every floor immediately to limit the fall distance to 8' to 12' rather than 25' required by the standard.

During the interim after metal deck is laid, and before permanent concrete floor is poured, we believe edge protection falls under Section 1926.750(b)(1)(iii). Several reasons are cited as follows:

1. The metal decking, although it is not removed after pouring of concrete, does not constitute a permanent flooring system. It is merely a concrete form which would be removed if it were cost effective to reuse. Furthermore, it is an incomplete stage of construction only used as a temporary work surface, due to strength limitations. The rigidity of the building is derived from reinforced concrete which is poured over the metal decking. Also, our interpretation of Section 1926.750(b)(1)(iii), which we made in good faith, understands the mention of temporary metal

decked floors to be a direct reference to our situation. Under no circumstances does the metal deck constitute a permanent floor.

2. The construction project in question was a Federally funded Veterans Administration Hospital Addition, with VA Safety Engineers on staff. The VA Engineers believed our edge protection to be adequate, and at the time of installation met the safety goals of the project. Further, during the course of an informal conference, the VA Engineers indicated that during their experiences, all other VA construction projects had been similarly barricaded. This point was further supported by the Associated General Contractors, who considered a single wire rope, 42" high, to be the industry's standard ever since the Federal Government and Private Industry have taken a more active interest in employee safety.
3. During installation of any safety system or device, the crew performing the installation is exposed to the very hazard the crew is attempting to eliminate. It is our belief that installing a second rail for added protection does not justify the added exposure to install the second rail.
4. The fourth reason is compliance. It is most difficult for The Safety Officers of (Company), and OSHA inspectors, even while working as a team, to enforce OSHA standards and promote employee participation in safety conscious attitudes.

During the aforementioned stage of construction, there is much material being staged onto the metal deck by high-reach forklifts from below. A single wire rope can be installed with rings and snaps in such a manner as not to adversely affect its strength, yet allow sections between columns to be lowered and raised quickly and efficiently for staging of material, without compromising OSHA Standards.

If the standard guardrail is adopted for this stage of construction, the guardrail must be dismantled in the areas of staging, the posts removed for side clearance, and probably not be reinstalled until floor pouring is complete - at which point the permanent walls will go in anyway. It would be very difficult to enforce the reconstruction of a standard guardrail between each forklift load.

It should be noted that we have addressed and solved the sagging problem, earlier mentioned, by replacing 5/8" nylon rope with 1/2" wire rope. Although nylon rope is less expensive to purchase and install, wire rope does, however, appear to provide better fall protection, which is the primary purpose of its existence.

Finally, it is not the intent of (Company) , or any of its employees, to circumvent any governmental regulations, be it regarding safety or environment. I believe our safety record, and the excellent relationship with the local OSHA representatives, is excellent evidence of our ongoing commitment to an attitude of "safe operations."

Furthermore, we believe the participation of our Field Personnel, and the interest expressed in safety by all (Company) employees is unsurpassed.

I, and the entire company are constantly learning new ways to conduct operations in a safer manner. If the OSHA representatives contacted me, the (Company) Safety Officer, directly, and indicated a problem or a better system, a mutually acceptable solution would have been reached and implemented in a matter of minutes, thus allowing all the time spent on formal negotiations to be utilized in the field, where doubtless, other potential hazards exist. We learn from each other. I, the Chief Safety Officer for (Company) , whose job it is to promote awareness and participation on the part of all employees, have found the current penalty system extremely negative and unproductive. While informing the Superintendent and the on-the-job Safety Committee of our cooperative relationship with the OSHA Agency, I am then forced to turn around and debit the Superintendent's Job Account, which was budgeted for safety, to pay a fine, in spite of a "good faith effort" on the part of the Superintendent. The Superintendent then tends to assume that fine paying is inevitable, and, therefore, compliance and participation are insignificant.

A safer job site could be acquired through better communication and cooperation, and less meting out of punishments, which only serve to make a Superintendent's job more difficult. It is (company) 's firm desire to cooperate and communicate at all times. Top safety conditions can only be achieved when all parties are on the same team, and work together.

In as much as (Company) has several metal tiered buildings under varied stages of construction, and VA and AGC safety personnel are involved in the outcome, your prompt ruling or variance on this matter would be highly appreciated.

RECORD ID 1229

STANDARD NUMBER 1926.500(f)(1)(vi); 1926.750(b)(1)(iii)
INFORMATION DATE 791211

ABSTRACT Steel bands exhibiting the equivalent strength of wire rope, may be used for guardrails as required by 1926.750 & 1926.500(f)(1)(vi) provided the metal bonding edge is protected.

INTERPRETATION 29 CFR 1926.500(f)(1)(vi); 1926.750

December 11, 1979

This is in response to your inquiry concerning the acceptability of steel bands for top rails and intermediate rails of a guardrail system.

29 CFR 1926.500(f)(1)(vi), for temporary or emergency conditions, states that other types, sizes, and arrangements of railing construction are acceptable, provided they meet the requirements contained in (a), (b), (c) and (d). The standard permits the use of any material meeting the above requirements.

The use of the word "normally" was included in the memorandum to clarify that the metal banding thickness usually requires the edges to be rolled, covered or otherwise shielded to protect employees that may make sudden contact with the edges.

In situations where the span between columns exceeds ten feet, it may be difficult to provide enough tension in a steel band to keep the level of deflection at a minimum while withstanding a two-hundred pound force.

On many construction projects when wire rope is used for the top and intermediate rails, employers are confronted with a similar difficulty in providing enough tension on the rope to minimize the deflection. The compliance officers making construction inspections are required to evaluate the wire rope and the metal banding systems during the course of an inspection. In this regard, plans are in progress to provide the field staff with force measurement equipment to evaluate such systems.

As indicated in your letter, Subpart R, 29 CFR 1926.750 allows the use of 1/2 inch wire rope or equal, to be installed around the periphery of temporary planked or metal decked floors during structural steel assembly. Steel bands providing equivalent strength could be used in lieu of the 1/2 wire rope, provided the metal banding edge is rolled, covered or otherwise protected.

OSHA Instruction STP 2.20

**March 4, 1981
Office of State Programs**

SUBJECT: Guarding of Low-Pitched Roof Perimeters During the Performance of Built-Up Roofing Work

- A. PURPOSE.** This instruction informs the Regions and State designees that the subject standard has been amended.
- B. SCOPE.** This instruction applies OSHA-wide.
- C. ACTION.** This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:
 - 1. Ensure that this change is forwarded to each State designee.
 - 2. Provide a copy of 29 CFR 1926.500(g) to the State designee upon request.
 - 3. Inform the State that adoption of 29 CFR 1926.500(g), or a standard which is at least as effective, is required within 6 months of the date of publication of the standard in the Federal Register.
 - 4. Ensure that the State submits a plan supplement to the Regional Administrator for approval.
 - 5. Ensure that the State's progress in adoption and implementation of the standard is monitored and evaluated in accordance with the Field Operations Manual, Chapter XVII.
- D. BACKGROUND.**
 - 1. Final Rules and Regulations 29 CFR 1926.500(g), Guardrails, Handrails and Covers, were published in the Federal Register Vol. 45, No. 222, on Friday, November 14, 1980.
 - 2. Under 29 CFR 1953.23(a)(1), States are provided up to 6 months for adoption of a standard which is as effective. Until the States have adopted the amendments to the Standard, OSHA will assume enforcement responsibility in State plan States for 29 CFR 1926.500(g).

OSHA Instruction STP 2-1.162A

**December 31, 1991
Office of State Programs**

SUBJECT: Safety Standards for Stairways and Ladders Used in the Construction Industry; Final Rule; Technical Amendments

- A. PURPOSE.** This instruction describes a Federal Program Change to the Regions and State designees.
- B. SCOPE.** This instruction applies OSHA-wide.
- C. REFERENCE.**
 - 1. OSHA Instruction STP 2-1.117, August 31, 1984, State Standards.
- D. CANCELLATION.**
 - 1. OSHA Instruction STP 2-1.162, January 22, 1991, Safety Standards for Stairways and Ladders Used in the Construction Industry; Final Rule
- E. FEDERAL PROGRAM CHANGE.** This instruction describes a Federal Program Change which affects State programs. Each Regional Administrator shall:
 - 1. Ensure that this instruction is forwarded to each State designee.
 - 2. Provide a copy of the Federal Register notice to the State designee upon request.
 - 3. Explain the technical content of the Federal Register Notice at 55 FR 47660, November 14, 1990, Safety Standards for Stairways and Ladders Used in the Construction Industry; Final Rule, and of the Federal Register Notice at 56 FR 41793, August 23, 1991, Safety Standards for Stairways and Ladders Used in the Construction Industry; Final Rule; Technical Amendments, to the State designees upon request.
 - 4. Ensure that each State designee acknowledges receipt of this instruction in writing, within 30 days of notification, to the Regional Administrator. The acknowledgment should include (a) the State's plan to adopt and implement the standard change, (b) the State's plan to develop an alternative change, which is as effective, or (c) the reasons why no change is necessary to maintain a program which is as effective as the Federal program.
 - 5. Inform each State designee that the State must, within six months of the date of Federal publication, amend its final rule or adopt the final rule to ensure that the State standard is at least as effective as the Final Rule for Safety Standards for Stairways and Ladders Used in the Construction Industry 1926 Subpart X. The State must submit a plan supplement to the Regional Administrator within 30 days of State promulgation.
- F. DIFFERENT STATE STANDARDS.** Section 18(c)(2) of the Act requires that State standards be "at least as effective" as the Federal and, when applicable to products used or distributed in interstate commerce, the standards must be required by compelling local conditions and not unduly burden interstate commerce. In addition to the "at least as effective" criterion, this "product clause test" will be applied to State standards with substantively different requirements from the comparable Federal standard, as described in STP 2-1.117. A State standard expanded in scope from the Federal is considered to be a substantively different standard.

- G. **INTERIM ENFORCEMENT.** Under 29 CFR 1953.23(a) and (b), State plan States are provided up to six months from publication of the Federal standard in the Federal Register to promulgate an identical or "at least as effective" as standard. If a State, for whatever reason, is unable to promulgate a standard in a timely manner (six months for a permanent standard, 30 days for an emergency temporary standard) the State shall be expected to provide assurance that it will enforce the substantive provisions of the new or revised Federal standard through such means as use of its general duty clause or equivalent, temporary adoption of an identical standard, or an alternative, specified enforcement mechanism. NOTE: The six month period for adoption of the basic standard ended on May 14, 1991. The States now have until February 23, 1992, to adopt the technical amendments, but if any State has not yet adopted the basic standard, it needs to do so quickly.
- H. **EFFECTIVE DATE.** The final rule, technical amendments became effective August 23, 1991. The initial effective date for an identical or different State standard may be no later than the date of State promulgation or the Federal effective date, whichever is later.
- I. **EXPLANATION.**
1. On November 14, 1990, OSHA issued a final rule for safety standards for stairways and ladders used in the construction industry, 29 CFR 1926 Subpart X.
 2. In the final rule the Occupational Safety and Health Administration (OSHA) amends its Construction Industry Standards by revising and relocating the existing provisions for stairways and ladders from existing Subpart L (Ladders and Scaffolds) , and Subpart M (Floors and Wall Openings, and Stairways) into Subpart X. This final rule reforms the rules into a more logical grouping of topics. This revision also focuses on the principal hazards involved when working on stairways and ladders and eliminates what OSHA believes to be unnecessary and redundant provisions in the existing standards.
 3. On August 23, 1991, the standard was amended to clarify some errors in the requirements for stairrails and handrails and in the requirements for spacing ladder rungs.
 4. Under 29 CFR 1953.23(a) and (b), State are provided up to six months from the publication in the FEDERAL REGISTER for adoption of parallel State standards and amendments.

OSHA Instruction STD 1-11.2B

AUG 8, 1983

Subject: Work Platforms Suspended from Lattice or Hydraulic Crane Booms

- A. Purpose.** This instruction clarifies 29 CFR 1926.550(b)(2) and the ANSI referenced requirement that the operator shall not hoist, lower, swing or travel the crane while anyone is on the load, or hook, as related to the use of working platforms suspended from cranes. Historically, OSHA has not cited in situations where there is no less hazardous means of transporting employees in unique work situations.
- B. Scope.** This instruction applies OSHA-wide.
- C. Cancellation.** OSHA Instruction STD 1-11.2A, October 1, 1981, is canceled.
- D. Action.** OSHA Regional Administrators and Area Directors shall ensure that cranes are used to hoist and suspend employees on a working platform only as permitted in F. of this instruction.
- E. Federal Program Change.** This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:
 - 1. Ensure that this change is forwarded to each State designee.
 - 2. Explain the technical content of the change to the State designees as requested.
 - 3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.
 - 4. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections and case file reviews) shall also be used to determine if this change has been implemented in actual performance.
- F. Guidelines.** Cranes may be used to hoist and suspend employees on a work platform or to provide access and egress in unique work situations when such action results in the least hazardous exposure to employees. Employers using cranes to hoist or suspend employees on a work platform in situations where the use of other equipment designed for the purpose is feasible or is specified by the standards will be cited when appropriate.
 - 1. **Confirmation.** CSHO's encountering a situation in which they believe there is no alternative to employees working from a platform suspended from a crane shall contact their Area Director or Supervisor for confirmation of the operation.
 - 2. **Less Hazardous Alternative.** In unique work situations where there is no less hazardous alternative, and under controlled conditions, it is permissible to use cranes to provide access and egress for employees. However, the employer must develop and produce evidence that other, less hazardous methods of access and egress are not available or practical.
 - a. **Documentation.** The employer shall retain at the job site and produce, when requested, documentation such as lift capacity information verifying that the requirements in this instruction have been met.

OSHA Instruction STD 1-11.2B (cont.)

- b. Crane Requirements.** For the proper design, inspection, construction, testing, maintenance, and operation of crawler, locomotive and truck cranes, CSHO's shall refer to the applicable standards, 29 CFR 1926.550, and ANSI B30.5-1968. Additional controlled conditions to meet these requirements include the following:

 - (1) The rated capacity of the crane at the radius at which the lift will be made shall be divided by four (4) and this limit shall not be exceeded.
 - (2) A full-cycle operational test lift shall be made prior to lifting of employees. The platform shall carry twice the intended load during the test lift.
 - (3) Pre-lift plans which show boom angle and maximum intended load shall be prepared for each group of lifts.
 - (4) All lifts shall be made in accordance with the manufacturer's lifting recommendations.
 - (5) A firm footing, uniformly level within 1 percent (1 foot in 100 feet), shall be provided for cranes. Crane outriggers shall be appropriately utilized when hoisting employees.
 - (6) The stability of the footing shall be verified during the full-cycle operational test.
 - (7) The load line on which the platform is suspended will have control load lowering. The free fall option shall not be used with suspended work platforms.
- c. Lifting Bridle Requirements.** Lifting bridles on working platforms suspended from cranes shall consist of four legs so attached that the stability of the platform is ensured. The lifting bridle on working platforms suspended from cranes shall be secured by a shackle or attached by a closed hook which cannot open due to load position in the hook.
- d. Platform Requirements.** The platform and its components must be capable of supporting, without failure, at least four times the maximum intended load. The platform shall be enclosed with a guardrail system including a top guardrail of approximately 42 inches, a midrail and a toe board. The guardrail system shall withstand a load of at least 200 pounds applied in any direction.

 - (1) The number of employees to be hoisted shall be kept to a minimum and in no case shall the number exceed 4.
 - (2) Employees using the platform shall be considered as weighing 250 pounds each.
 - (3) The platform shall not be used during high winds, electrical storms, snow or other adverse weather conditions which could endanger employees on the platform.
- e. Communication Requirements.** The standard hand signals to the operator shall be in accordance with 29 CFR 1926.550(a)(4), unless voice communication equipment (telephone, radio, or equivalent) is utilized. Signals shall be visible or audible to the operator at all times.
- 3. Citations.** OSHA Compliance officers will cite 29 CFR 1926.550(b)(2) if the employer fails to comply with the guidelines of this instruction.

OSHA Instruction STD 1-11.2B (cont.)

- G. Background.** OSHA has issued three program directives which provided guidelines for the use of working platforms suspended from cranes. Those guidelines were incorporated into the instruction dated October 1, 1981. Since the issuance of that instruction, OSHA has determined that additional safety requirements are necessary for the further protection of employees working on platforms suspended from cranes. This instructional includes these additional requirements.

OSHA Instruction STD 3-12.1A

May 9, 1980

SUBJECT: 29 CFR 1926.550(a)(15)(i) Clearance Between Electrical Power Lines and Cranes

A. Purpose. This instruction provides clarification of 29 CFR 1926.550(a)(15)(i) as related to the "forbidden zone" for clearance between electrical power lines and any part of equipment or machines.

B. Scope. This instruction applies OSHA-wide.

C. Cancellation. OSHA Instruction STD 3-12.1, January 31, 1975, is canceled.

D. Action. OSHA Regional Administrators/Area Directors shall assure that where 29 CFR 1926.550(a)(15)(i) is applicable it is enforced as written: "For lines rated 50 KV. or below, minimum clearance between the lines and any part of the crane or load shall be 10 feet;...."

E. Federal Program Change. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this change is forwarded to each State designee.

2. Explain the technical content of the change to the State designees as requested.

3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.

4. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections and case file reviews) shall also be used to determine if this change has been implemented in actual performance.

F. Clarification. The minimum clearance of 10 feet as used in 29 CFR 1926.550(a)(15)(i) applies in any direction from any applicable line. This interpretation excludes extending the minimum clearance due to the height of the lines or the height of any part of the crane or load.

G. Background. This instruction updates previous guidance and corrects error in paragraph 4.a. of the canceled directive. The word "over" in paragraph 4.a. of OSHA Instruction STD 2-12.1, line 3, is incorrect and is deleted in this re-issue.

OSHA Instruction STD 3-12.2
October 30, 1978

Jan. 31, 1978

OSHA PROGRAM DIRECTIVE #100-75

Subject: Uniformity in Interpretation of 29 CFR 1926.550(a)(9)

1. Purpose

The purpose of this directive is to assure uniformity within all 10 Regions in the interpretation of 29 CFR 1926.550(a)(9).

2. Documentation Affected

This directive supersedes Field Information Memorandum #74-80 dated October 15, 1974.

3. Background

The following interpretation of 29 CFR 1926.550(a)(9) shall be used as a basis for enforcement:

- a. Accessible areas within the swing radius of the rear of the rotating superstructure of the crane are meant to be those areas within the 360 degrees of travel. "A barricade is required in accessible areas when the swing radius of the rear of the rotating structure of the crane, either permanently or temporarily mounted, may cause an employee to be crushed between other objects and the rear of the crane or any portion of the crane carriage" regardless of whether it be front, rear or side.
- b. Historically, most fatalities have been caused employees getting between the rotating superstructure and the turntable or other portions of the crane itself.

4. Action

This interpretation is applicable for all equipment covered under Subpart "N" of 29 CFR 1926 when used in such a manner that the hazard as described in 29 CFR 1926.550(a)(9) is created and an exposure is observed.

5. Effective Date

This directive is effective immediately and will remain in effect until canceled or superseded.

OSHA Instruction STD 3-12.4

February 8, 1982

Subject: Overhead and Gantry Cranes, and Derricks--Normal Operating Conditions, 29 CFR 1910.179(e)(6)(i), 29 CFR 1910.179(g)(2)(i), and 29 CFR 1910.181(j)(1)(i); 29 CFR 1926.550(d)(4) and 29 CFR 1926.550(e)

- A. Purpose.** This instruction provides an interpretation of the term "normal operating conditions," as applicable to the OSHA crane and derrick standards in general industry and construction.
- B. Scope.** This instruction applies OSHA-wide.
- C. Action.** OSHA Regional Administrators/Area Directors shall apply the following interpretation to the term "normal operating conditions" as used in 29 CFR 1910.179(e)(6)(i), 1910.179(g)(2)(i), and 1910.181(j)(1)(i); 29 CFR 1926.550(d)(4) (ANSI B30.2.0 -1967, Chapter 7, paragraph (a) and Chapter 2-1.9.2, paragraph (a) and 29 CFR 1926.550(e) (ANSI B30.6 -1969, Chapter 6-1.6.1, paragraph (a)).
 - 1. Whenever a crane or derrick is used in its regular production activities such as material handling and loading, and is under the control of its operator rather than under the control of a maintenance worker, it is used in a normal operating condition.
 - 2. Normal operating conditions do not encompass the situation when maintenance is performed on a crane or derrick which is taken out of production and the crane or derrick is under the control of the maintenance worker.
- D. Federal Program Change.** This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:
 - 1. Ensure that this change is forwarded to each State designee.
 - 2. Explain the technical content of the change to the State designee as requested.
 - 3. Ensure that the State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that state.
 - 4. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections and case file reviews) shall also be used to determine if this change has been implemented in actual performance.
- E. Background.** In *Secretary of Labor v. United States Steel Corporation*, OSHRC Docket Nos. 10825 and 10849, (1977) the Occupational Safety and Health Review Commission clarified the meaning of the term "normal operating conditions" as used in 29 CFR 1910.179(e)(6)(i); (g)(2)(i), and 1910.181(j)(1)(i) as it applies to cranes and derricks. This instruction provides that OSHA compliance personnel apply the Review Commission's interpretation in inspecting cranes and derricks covered by the General Industry and Construction Standards.

OSHA Instruction STP 2-1.143

DEC 30, 1987

Office of State Programs

Subject: Revision of Construction Industry Test and Inspection Records, Final Rule

A. Purpose. This instruction describes a Federal program change to the Regions and State designees.

B. Scope. This instruction applies OSHA-wide.

C. Reference. OSHA Instruction STP 2-1.132, November 24, 1986.

D. Federal Program Change. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this instruction is forwarded to each State designee.
2. Provide a copy of the Federal Register notice to the State designee upon request.
3. Explain the technical content of the Federal Register notice at 52 FR 36378, September 28, 1987, Revision of Construction Industry Test and Inspection Records, Final Rule, to the State designee upon request.
4. Inform each State designee that the States are encouraged to revise certain provisions in their recordkeeping requirements, comparable to Federal requirements, to minimize paperwork burdens imposed on employers.
5. Ensure that each State designee acknowledges receipt of this instruction in writing, within 30 days of notification, to the Regional Administrator. The acknowledgment should include (a) the State's plan to adopt and implement the revision, (b) the State's plan to develop an alternative revision, which is as effective, or (c) the State's notice that it will not adopt the revision. If the revision is adopted, a plan supplement should be submitted to the Regional Administrator as soon as possible, but in no case later than 6 months from issuance of this instruction.

E. Explanation.

1. The Occupational Safety and Health Administration has revised certain recordkeeping requirements to minimize the paperwork burdens imposed on employers and to clarify what information is required.
2. The final rule, Revision of Construction Industry Test and Inspection Records, revises three construction industry recordkeeping requirements for 1926.550(b)(2), Crawler, locomotive and truck cranes; 1926.552(c)(15), Material hoists, personnel hoists and elevators; and, 1926.903(e), Underground transportation of explosives and eliminates certain requirements under which an employer must prepare and maintain written records. The revised provisions require, instead, that the employer prepare a certification record, at the time the required work (inspection or test) is done, which includes the date the inspection or test was performed; the signature of the person who performed the work; and the identity of the equipment or machinery that was inspected or tested.
3. OSHA has determined that the implementation of these final rules will minimize the paperwork burden on employers, as required by the Paperwork Reduction Act of 1980, without reducing the protection of employee safety or health.

OSHA Instruction STP 2-1.150

**September 14, 1988
Office of State Programs**

Subject: Crane or Derrick Suspended Personnel Platforms, Final Rule

A. Purpose. This instruction describes a Federal program change to the Regions and State designees.

B. Scope. This instruction applies OSHA-wide.

C. Federal Program Change. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this instruction is forwarded to each State designee.
2. Provide a copy of the Federal Register notice to the State designee upon request.
3. Explain the technical content of the Federal Register notice at 53 FR 29116, August 2, 1988, Crane or Derrick Suspended Personnel Platforms; Final Rule, to the State designee upon request.
4. Ensure that each State designee acknowledges receipt of this instruction in writing, within 30 days of notification, to the Regional Administrator. The acknowledgement should include (a) the State's plan to adopt and implement the standard change, (b) the State's plan to develop an alternative change, which is as effective, or (c) the reasons why no change is necessary to maintain a program which is as effective.
5. Inform each State designee that the State must amend the State's standard to ensure that it remains at least as effective as the amended 29 CFR 1926.550 and submit a plan supplement within 6 months of the date of the Federal publication.

D. Different Standards. Section 18(c) (2) of the OSH Act requires that State standards be "at least as effective" as the Federal and, when applicable to products used or distributed in interstate commerce, be required by compelling local conditions and not unduly burden interstate commerce. In addition to the "at least as effective" criterion, this "product clause test" will be applied to State standards with substantively different requirements from the comparable Federal standard, as described in STP 2-1.117. A State standard expanded in scope from the Federal is considered to be a substantively different standard.

E. Interim Enforcement. Under 29 CFR 1953.23(a) and (b), State plan States are provided up to 6 months from publication of the Federal standard in the Federal Register to promulgate an identical or "at least as effective" as standard. If a State, for whatever reason, is unable to promulgate a standard in a timely manner (6 months for a permanent standard, 30 days for an emergency temporary standard) the State shall be expected to provide assurance that it will enforce the substantive provisions of the new or revised Federal standard through such means as use of its general duty clause or equivalent, temporary adoption of an identical standard, or an alternative, specified enforcement mechanism.

F. Explanation

1. On August 2, 1988 OSHA issued a final rule on its Construction Standards for Cranes and Derricks. The rule amends its Construction Standards for Cranes and Derricks, 29 CFR 1926.550, by adding a new paragraph (g) to prohibit the use of cranes or derricks to hoist personnel except in the situation where no safe alternative is possible and as long as the requirements for such hoisting set out in paragraph (g) are satisfied.
2. Under 29 CFR 1953.23(a) and (b), States are provided up to 6 months from publication in the Federal Register for adoption of parallel State standards and amendments.

RECORD ID 2057

STANDARD NUMBER 1926.550(a)(1)
INFORMATION DATE 750318

ABSTRACT

This interpretation letter responds to a request for variance from the requirements for cranes and derricks. The employer shall comply with a manufacturer's specifications and limitations applicable to the operation of any and all cranes and derricks, especially with the requirements regarding inspection, maintenance and service. An employer has satisfied the intent of the standard if 1926.505(g)(1) is complied with. Recommended procedures such as having a manufacturer's certificate stating that the crane has been serviced satisfies the standards intent.

INTERPRETATION 29 CFR 1926.550(a)(1)

March 18, 1975

The Assistant Secretary has asked me to respond to your letter dated February 27, 1975, requesting a permanent variance from Section 1926.550(a)(1) Cranes and Derricks - General Requirements, of the Safety and Health Regulations for Construction.

This standard requires that the employer shall comply with the manufacturer's specifications and limitations applicable to the operation of any and all cranes and derricks. It appears that you are meeting the intent of this standard based on the manufacturer's certificate relative to the subject crane (company) Model 25030. Of utmost importance are the conditions of the manufacturer's certificate which states, "provided that the crane has been inspected, maintained, and serviced in accordance with (company)'s recommended procedures."

Therefore, no further action will be taken on your variance application.

RECORD ID 1319

STANDARD NUMBER 1926.550(a)(9)
INFORMATION DATE 830603

ABSTRACT Drill and pile rigs may be impossible to barricade as stated in 1926.550(a)(9) especially if the rotating superstructure of the crane is constantly moving in a work mode. Alternative precautions must be taken.

INTERPRETATION 29 CFR 1926.550(a)(9)

June 3, 1983

This is in response to your letter of May 11, 1983, requesting a clarification of 29 CFR 1926.550(a)(9) as it applies to drilling and pile driving operations.

29 CFR 1926.550(a)(9) does apply to drill and pile rigs, however, OSHA recognizes that it may be functionally impossible to barricade such equipment if it is constantly moving in the performance of the work operation. Whenever compliance with a standard is impossible, OSHA requires employers to take all available alternative precautions. Your safety program, including (1) Pointing out the swing radius danger by posting signs, (2) Instructing employees in the danger of swinging counterweights, (3) Instructing employees in the danger of rig pinch points, (4) Instructing the operators to swing only on signals from the foreman or the designated Signal Man, and (5) Requiring employees not to move a rig until they know the area is clear would appear to implement adequate alternative precautionary measures.

This interpretation is based on Federal standards. However, you should be aware that Section 18 of the Occupational Safety and Health Act allows States to assume responsibility for enforcement of their own occupational safety and health programs. There are currently twenty-four such programs in operation. These states must enforce standards that are either identical or at least effective as the Federal standards. A list of the State's plan States is enclosed.

RECORD ID

1422

**STANDARD NUMBER
INFORMATION DATE**

**1926.550(a)(14)(i); 1910.180(i)(5)(i); 1910.157(a)
750430**

ABSTRACT

The Crane and (fire extinguisher requirements) standard requires that an accessible fire extinguisher be available at all operator stations or cabs of the equipment.

(NOTE: The terminology in the standard in the 1990 edition of Title 29 CFR uses the word shall.)

INTERPRETATION

29 CFR 1926.550(a)(14)(i); 1910.180(i)(5)(i); 1910.157(a)

April 30, 1975

The Secretary of Labor has asked me to respond to your letter dated April 14, 1975, requesting a permanent variance from Sections 1926.550(a)(14)(i) and 1910.180(i)(5)(i) Crane and Derricks - Fire Extinguisher Requirements, of the Occupational Safety and Health Regulations for Construction and General Industry.

It appears that you are maintaining a fire extinguisher in the cab of your cranes at all times including those periods (nonworking hours) when the job is not in operation, and a fire hazard to your employees does not exist.

The standards cited above require that a fire extinguisher be located at all operator stations or cabs of the equipment during crane operations. The intent of these standards is to protect your employees from the usual fire hazards associated with crane operations. You are not required to maintain a fire extinguisher in the cab or vicinity of the crane during nonworking hours.

Based on this clarification it would appear that a variance in your situation is unnecessary.

No further action will be taken on your variance application.

RECORD ID 2321

STANDARD NUMBER 1926.550(a)(15)(i); (a)(15)(ii); (a)(15)(iii); 1910.180(j)
INFORMATION DATE 850109

ABSTRACT This interpretation letter provides guidelines for use of cranes near energized power lines. OSHA has investigated accidents where cranes have come in contact with energized lines. Written responses on these accidents are prepared and circulated to interested parties. The boom and cables of a crane should be kept away from all electric wires, regardless of their voltage.

INTERPRETATION 29 CFR 1926.550(a)(15)(i); (a)(15)(ii); (a)(15)(iii); 1910.180(j)

Jan 9, 1985

This is in response to your letter dated December 17, 1984, requesting information on the frequency and severity of injuries caused as a result of cranes, hoists, and other lifting devices coming into contact with overhead power lines.

The Occupational Safety and Health Administration (OSHA) does not collect frequency and severity data on injuries related to specific pieces of equipment. We do have specific standards covering the operation of cranes, derricks, and hoists which are covered in Subpart N of 29 CFR 1926, OSHA construction standards, and in Subpart N of 29 CFR 1910, OSHA general industry standards. Copies of these standards are enclosed for your information.

OSHA has investigated accidents where cranes have come in contact with energized lines. Written response on these accidents are prepared and circulated to interested parties. Copies of these reports are also enclosed for your information.

The boom and cables of a crane should be kept away from all electric wires, regardless of their voltage. OSHA requires that, except where the electrical distribution and transmission lines have been deenergized and visibly grounded at the point of work, or where insulating barriers, not a part of or an attachment to the crane, have been erected to prevent physical contact with the lines, cranes should be operated near power lines only in accordance with the following:

- o For lines rated 50 kilovolts (kV.) or below, minimum clearance between the lines and any part of the crane must be 10 feet.
- o For lines rated over 50 kV. minimum clearance between the lines and any part of the crane must be either 10 feet plus 0.4 inch for each kV. over 50 kV., or twice the length of the line insulator but never less than 10 feet.
- o In transit and with no load and boom lowered, the clearance shall be a minimum of 4 feet for voltages less than 50 kV., and 10 feet for voltages over 50 kV., up to and including 345 kV., and 16 feet for voltages up to and including 750 kV.

Cage-type boom guards, insulating links, or proximity warning devices may be used on cranes, but the use of such devices should not operate to alter the requirements as specified in the OSHA standards. Any overhead wire should be considered an energized line until either the person who owned the line, or the electric utility authorities, indicate that it is not energized. If a crane boom contacts a conductor, the hazard is greatest to the hook-on person and others who may touch the load or the sling.

SOURCE LETTER

Dec 17, 1984

This office represents the estates of three individuals who were fatally electrocuted in two separate accidents when cranes they were working with came into contact or nearly into contact with overhead power lines. Specifically, all three gentlemen were laborers who were steadying loads suspended from the crane's lifting line. When the crane or its cable came into contact or nearly into contact with the overhead power lines, they were fatally electrocuted.

I am interested in obtaining whatever information you have in connection with the frequency and severity of injuries caused as a result of cranes, hoists and other lifting devices coming into contact with overhead power lines.

RECORD ID

4243

STANDARD NUMBER
INFORMATION DATE

1926.550(a)(15); 1910.137
910321

ABSTRACT

OSHA standards at 29 CFR 1926.550 provide two options where a crane operates closer than the 10-foot minimum clear distance between any part of the crane and an overhead electrical line. One option is to de-energize and visibly ground the line and the other option is to use insulating barriers to prevent physical contact with the line. Insulating barriers are subject to 29 CFR 1910.137, Electrical Protective Devices. However, OSHA has no standard that requires utility companies to "guarantee insulation." If rubber insulating blankets meet the American National Standards Institute/American Society for Testing Materials J6.4-1970 standard, or equivalent, and if they are installed according to the manufacturer's instructions, they meet the OSHA requirements.

INTERPRETATION

29 CFR 1926.550(a)(15); 1910.137

MAR 21 1991

Dear Mr. G:

Thank you for your letter of January 25, concerning operation of cranes in close proximity to overhead electrical lines. Your concern is understood to be with the OSHA requirements for operations which are closer to the lines than the 10 foot minimum clear distance between the line and any part of a crane.

The Occupational Safety and Health Administration (OSHA) standards at 29 CFR 1926.550, copy enclosed, provide two options where operations are closer than 10 feet from the line. One option is to de-energize and visibly ground the line. The other option is to use insulating barriers to prevent physical contact with the lines.

The specification requirement for insulating barriers is found at 29 CFR 1910.137, Electrical Protective devices, copy enclosed. Rubber protective equipment for electrical workers shall conform to the requirements established in American National Standards Institute, Inc. standards. For rubber insulating blankets it is ANSI/ASTM J6.4-1970, copy enclosed. Unfortunately, this standard was recently withdrawn. However, the American Society for Testing Materials (ASTM), has published currently effective standards for these insulating barriers. The use of insulating barriers which comply with the current ASTM standards provide for compliance with the OSHA standards at 29 CFR 1926.550 (a)(15) and 29 CFR 1910.137.

The current ASTM standards which meet or exceed OSHA requirements are:

1. Rubber Insulating Line Hose, ASTM D1050-85
2. Rubber Insulating Covers, ASTM D1049-88

OSHA has no standard which requires utility companies to "guarantee insulation". If the blankets meet the ANSI/ASTM J6.4-1970 standard, or equivalent as noted above, and are installed according to the manufacturer's instructions, they meet the OSHA requirements.

RECORD ID 1780

STANDARD NUMBER 1926.550(a)(15)
INFORMATION DATE 861021

ABSTRACT 1926.550(a)(15) refers to the voltage of electric distribution and transmission lines, but does not distinguish between phase-to-phase lines. It is intended that a phase-to-ground voltage must be used in applying the standard to grounded systems. For ungrounded systems the phase-to-phase voltage must be used.

INTERPRETATION 29 CFR 1926.550(a)(15)

OCT 21, 1986

This is in response to your letter of March 21, 1985 addressed to our Regional Area Office requesting a clarification of 29 CFR 1926.550. Your letter was forwarded to this office for response.

It is true as indicated in your letter that the wording in 29 CFR 1926.550(a)(15) refers to the voltage of electric distribution and transmission lines, but does not distinguish between phase-to-phase lines. It is intended that the phase-to-ground voltage be used in applying the standard to grounded systems. For ungrounded systems, of course, the phase-to-phase voltage must be used.

ATTACHMENT: The following interpretation (Record ID 2212) is included as supplemental information for this first instance of OSHA Standard 1926.550.

RECORD ID 2212

STANDARD NUMBER 1910.28(a)(18); 1910.37(q)(1); 1917.45(g)(3); 1926.550(a)
INFORMATION DATE 850326

ABSTRACT This interpretation letter addresses standards for use of cranes during high wind conditions. There are no construction standards for the use of cranes during high wind conditions. The "Marine Terminal" standard, 1917.45(g)(3), could be used as a guideline for construction cranes. As a separate issue, a clarification of exit sign requirements is given.

INTERPRETATION 29 CFR 1910.28(a)(18); 1910.37(q)(1); 1917.45(g)(3); 1926.550(a)

March 26, 1985

There is not a construction standard for the use of cranes during high wind conditions. There is a standard in the new "Marine Terminal" standard paragraph 1917.45(g)(3) - (Attachment 1). Note this standard is for rail mounted cranes. In our discussions during Cal/OSHA advisory meetings, the cranes on the docks usually follow the procedure set in the table 2-A (Attachment 2). The dock workers start getting concerned at 20-25 mph because in the Bay Area there are a lot of gusts, it is not steady winds. The two documents could be used as guidelines for construction cranes.

This is also what is used for scaffold requirements as incorporated into the construction standards, 1910.28 (a)(18).

The requirement for exit signs is not the number of employees in an establishment, but the physical layout of the building.

The interpretation of 1910.37(q)(1) is vital "...where the exit or way to reach it is not immediately visible to the occupants." If you have a square room with windows and no partitions, an exit sign would not be needed.

The same floor space, made up of individually separate rooms, in a maze configuration, with no windows, illuminated exit signs may be required to allow employees a safe means of egress.

The important words are immediately visible. If the inspector gets "lost" you need exit signs. If the inspector can immediately find the exit, no exit sign would be required.

• (No date provided.)

Source - Federal Register, Vol. 218 No. 129, 30918-9

(g) Rail-mounted cranes (excluding locomotive types).

(1) For the purpose of this section, rail-mounted cranes include bridge cranes and portal cranes.

(2) Rated load marking. The rated loads of bridge cranes shall be plainly marked on each side of the crane and in the cab. If there is more than one hoisting unit, each hoist shall have its rated load marked on it or on its load block. Marking shall be legible from the ground level.

(3) Wind-indicating devices.

(i) After October 3, 1983, each rail-mounted bridge and portal crane located outside of an enclosed structure shall be fitted with an operable wind-indicating device.

(ii) The wind indicating device shall provide a visible or audible warning to alert the operator of high wind conditions. That warning shall be transmitted whenever the following circumstances are present:

(A) When wind velocity reaches the warning speed, not exceeding the crane manufacturer's recommendations; and

(B) When wind velocity reaches the shutdown speed, not exceeding the crane manufacturer's recommendations, at which work is to be stopped and the crane secured.

(iii) Instructions. The employer shall post operating instructions for high wind conditions in the operator's cab of each crane. Operators shall be directed to comply with these instructions. The instructions shall include procedures for responding to high wind alerts and for any coordination necessary with other cranes.

(4) Securing of cranes in high winds.

(i) When the wind reaches the crane's warning speed:

(A) Gantry travel shall be stopped; and

(B) The crane shall be readied for shutdown.

(ii) When the wind reaches the crane's shutdown speed:

(A) Any portion of the crane spanning or partially spanning a vessel shall be moved clear of the vessel if safe to do so; and

(B) The crane shall be secured against travel, using all available means of securing.

(5) The employer shall monitor local weather conditions by subscribing to a weather service or using equally effective means.

- (6) **Stops and bumpers.**
- (i) The ends of all tracks shall be equipped with stops or bumpers. If a stop engages the tread of the wheel, it shall be of a height not less than the radius of the wheel.
 - (ii) When more than one crane operates on the same runway or more than one trolley on the same bridge, each crane or trolley shall be equipped with bumpers or equivalent devices at adjacent ends subject to impact.
- (7) **Employee exposure to crane movement.** When employees may be in the vicinity of the tracks, crane trucks shall be equipped with personnel-deflecting guards.
- (8) **Pedestrian clearance.** If the track area is used for employee passage or for work, a minimum clearance of three feet (0.9 m) shall be provided between trucks or the structures of rail-mounted cranes and any other structure or obstruction. When the required clearance is not available on at least one side of the crane's trucks, the area shall not be used and shall be marked and identified.
- (9) **Warning devices.** Rail-mounted cranes shall be equipped with an effective travel warning device which shall be used to warn employees who may be in the path of the moving crane.
- (10) **Communications.** Means of communication shall be provided between the operator's cab and the base of the gantry of all rail-mounted cranes. This requirement may be met by telephone, radio, sound-signalling system or other effective methods, but not solely by hand-signalling.

(No date provided.)

Source: ACCIDENT PREVENTION MANUAL FOR INDUSTRIAL OPERATIONS, 8th Edition, National Safety Council, p. 43

Table 2-A
FORCE OF WIND FOR GIVEN VELOCITIES

Miles per hour	Feet per minute	Feet per second	Force in pounds per square foot	Description
1	88	1.47	0.004	Hardly Perc.
2	176	2.93	0.014	Just Perc.
3	264	4.40	0.036	
4	352	5.87	0.064	Gentle Breeze
5	440	7.33	0.1	
10	880	14.67	0.4	Pleasant Breeze
15	1,320	22.0	0.9	
20	1,760	29.3	1.6	Brisk Gale
25	2,200	35.8	2.5	
30	2,640	44.0	3.6	High Wind
35	3,080	51.3	4.9	
40	3,520	58.6	6.4	Very High Wind
45	3,960	66.0	8.1	
50	4,400	73.3	10.0	Storm
60	5,280	88.0	14.4	Great Storm
70	6,160	102.7	19.6	
80	7,040	117.3	25.6	Hurricane
100	8,800	146.6	40.0	

RECORD ID 2132

STANDARD NUMBER 1926.550(b)(2); (d)(4); (e)
INFORMATION DATE 810508

ABSTRACT This interpretation letter addresses the applicability of operator physical qualification requirements contained in certain ANSI standards incorporated by reference in 29 CFR 1926.550. The requirements do not apply to the operator. They do apply in part to ANSI 1330.5-1968, ANSI 1330.20-1967, ANSI 1330.6-1969

INTERPRETATION 29 CFR 1926.550(b)(2); (d)(4); (e)

May 8, 1981

This is in response to your letter to Mr. M dated March 10, 1981. It concerned the applicability of operator physical qualification requirements contained in certain ANSI standards incorporated by reference in 29 CFR 1926.550. Specifically, these standards are:

1. 29 CFR 1926.550(b)(2); ANSI B30.5-1968, Safety Code for Crawler, Locomotive and Truck Cranes, Qualifications for Operators, Chapter 5-3.1.2, paragraph b.
2. 29 CFR 1926.550(d)(4); ANSI B30.2.0-1967, Safety Code for Overhead and Gantry Cranes, Qualifications for Operators of Cab-Operated and Pulpit-Operated Cranes, Chapter 2-3.1.2, paragraph b.
3. 29 CFR 1926.550(e); ANSI B30.6-1969, Safety Code for Derricks.
 - a. Qualifications for Designated Individuals in Charge of Derrick Operations, Chapter 6-3.1.2, paragraph b.
 - b. Qualifications for Operators, Chapter 6-3.2.2, paragraph b.

It is the interpretation of OSHA that the physical qualification requirements incorporated by reference in 29 CFR 1926.550 do not apply to operators of equipment covered by these standards.

RECORD ID 1809

STANDARD NUMBER 1926.550(g)(2)
INFORMATION DATE 890301

ABSTRACT This interpretation letter clarifies OSHA's policy on when it is permissible for employees to be hoisted on the load lines of cranes and derricks and how it is to be done. Employees may be hoisted on the load lines of cranes, on construction sites, only if it is more hazardous or infeasible to reach the worksite by conventional means. Employees are not permitted to "ride the ball" under any circumstances. Employees may only ride in a personnel platform that complies with 1926.550(g). All cranes that are used to hoist employees are required to be fitted with anti-two blocking devices.

INTERPRETATION 29 CFR 1926.550(g)(2)

March 1, 1989

MEMORANDUM FOR: Regional Administrators

ATTENTION: ARAs for TECFAP

SUBJECT: OSHA Standard 29 CFR 1926.550(g) Cranes and Derricks Suspended Personnel Platforms

Following the October 3, 1988, effective date of OSHA Standard 29 CFR 1926.550(g) (Cranes and Derricks Suspended Personnel Platforms), former OSHA Training Institute students have requested clarification regarding OSHA's policy on when and how it is permissible for employees to be hoisted on the load lines of cranes and derricks.

This is to advise you that the following guidelines relating to this topic are being provided at the Institute:

1. Employees may be hoisted on the load lines of cranes, on construction sites, only if it is more hazardous or infeasible to reach the worksite by conventional means.
2. Employees are not permitted to "ride the ball" under any circumstances. Employees may only ride in a personnel platform that complies with the requirements set forth in OSHA Standard 29 CFR 1926.550(g).
3. All cranes that are used to hoist employees are required to be fitted with anti-two blocking devices.

RECORD ID 3082

STANDARD NUMBER 1926.550(g)(2)
INFORMATION DATE 900118

ABSTRACT OSHA Notice STD 3, June 2, 1989, an interim guide for Crane or Derrick Suspended Personnel Platforms, expired December 31, 1989. 1926.550(g), Crane or Derrick Suspended Personnel Platforms, is now in full effect for compliance inspections, consultation, and information requests as of the effective date of October 3, 1988.

INTERPRETATION 29 CFR 1926.550(g)(2)

January 18, 1990

MEMORANDUM FOR: ALL COMPLIANCE PERSONNEL

SUBJECT: Requirement for Anti-Two-Blocking Cranes and Derricks Used to Hoist Personnel Platforms

OSHA Notice STD 3, June 2, 1989, an interim guidance for compliance with this subject, expired December 31, 1989. All temporary variances and interim orders have expired. There are no permanent variances. No new notices or STD's have been issued on this subject.

29 CFR 1926.550(g), Crane or Derrick Suspended Personnel Platform, was issued as a Final Rule on August 2, 1988, with an effective date of October 3, 1988. This Safety and Health regulation is now in full effect for compliance inspections, consultation and information requests.

RECORD ID 92072102

STANDARD NUMBER 1926.550(a)(15)
INFORMATION DATE 19920721

ABSTRACT Operating backhoes and mobile equipment adjacent electrical distribution and transmission lines. Insulating barriers alone do not provide sufficient protection in all cases. Determinations as to the adequacy of protective barriers must be made at the construction site by compliance officers after consideration of all conditions.

INTERPRETATION 29 CFR 1926.550(a)(15)

July 21, 1992

Dear Mr. K:

This is in response to your letter of June 26 requesting my help in resolving conflicting interpretations of the Occupational Safety and Health Administration (OSHA) requirement addressing operating equipment near powerlines.

As you stated in your June 23 letter to Mr. R. G., there are three options for compliance with 29 CFR 1926.550(a)(15). OSHA included these options in this standard because the Agency recognizes that any one of the methods is not suitable or feasible in all cases. Consequently, in regard to your inquiry, a decision to use insulating barriers alone will not be adequate in all cases to provide the necessary protection.

In the example you described where a backhoe is digging below or near powerlines, insulating barriers would appear to be adequate only if the reasonably expected motion of a backhoe boom and bucket, could produce, at most, a brushing type contact with an overhead wire and damage to the wire or barrier would not be possible or expected. If, on the other hand, the reasonably expected motion of the backhoe could pull down or contact conductors or otherwise damage the wire or barrier if contact was made, then barriers would not be adequate and the powerline would have to be deenergized, or the backhoe moved away from the lines. Determinations as to the adequacy of protective barriers must be made at the construction site by our compliance officers after consideration of all conditions. This flexibility, although sometimes leading to differences in application, is needed both by industry and OSHA so that OSHA's regulations can be properly applied to the diversity of situations that are always present on many construction sites.

If we can be of any further assistance, please contact Mr. R. F. G. or Mr. D. R. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523- 8136.

RECORD ID

92102704

STANDARD NUMBER
INFORMATION DATE

1926.552(b)(2); (b)(3); (b)(5)(ii); (b)(5); (b)
19921027

ABSTRACT

This letter regards application of OSHA standards in use of hoists. With respect to the ground-supported tower type hoists, the provisions of 1926.552, which are virtually identical to provisions in ANSI A10.5-1969, do apply to all such material hoists. With respect to gates, paragraphs 1926.552(b)(2) and (b)(5)(ii) do not require gates on the hoist platform. They do, however, require the landing areas on floors, roofs, and similar platforms to be guarded with gates to prevent fall hazards. A gate would not be required in a situation where materials are loaded/unloaded over a permanent guardrail system.

INTERPRETATION

29 CFR 1926.552(b)(2); (b)(3); (b)(5)(ii); (b)(5); (b)

OCT 27 1992

Dear Mr. P:

This is in response to your March 24 letter requesting the Occupational Safety and Health Administration (OSHA) to clarify the intent and application of 29 CFR 1926.552. I apologize for the delay of this response.

With respect to the ground-supported tower type hoists, please be advised that the provisions of 1926.552, which are virtually identical to provisions in ANSI A10.5-1969, do apply to all such material hoists. However, under OSHA's de minimis violation policy, non-compliance with a provision is considered to be de minimis when the situation has no direct or immediate relationship to employee safety and health or when it is apparent that the employer is complying with the clear intent of the standard but deviates in a minor, technical or trivial way. The de minimis policy may be applied to the requirements for cage and hoistway enclosures (1926.552(b)(3) and (5)) when the materials on the hoist are stacked no higher than the top of the cage and employees other than the operator are barricaded from getting near the bottom of the hoist. With respect to gates, paragraphs 1926.552(b)(2) and (b)(5)(ii) do not require gates on the hoist platform. They require the landing areas on floors, roofs, and similar platforms to be guarded with gates to prevent fall hazards. However, a gate would not be required in a situation such as that pictured on page 2 of the STEINWEG SUPERLIFT brochure, where materials are loaded/unloaded over a permanent guardrail system.

With respect to the other types of hoists you inquired about, please be advised that neither 1926.552 nor ANSI A10.5 would apply as the hoists are covered by 1926.554.

If you have any further questions please do not hesitate to contact me or Mr. D. C. of my staff at (202) 219-8136.

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RECORD ID D9308012

STANDARD NUMBER 1926.550(g)(3)(ii)(C)
INFORMATION DATE 930813

ABSTRACT This interpretation letter clarifies the requirements for the use of cranes for lifting personnel platforms, with respect to a warning device being used in lieu of a positive acting device.

A warning device shall not be used in lieu of an anti-two-blocking device or two-block damage prevention feature that deactivates the hoisting action when lifting personnel.

INTERPRETATION 29 CFR 1926.550(g)(3)(ii)(C)

This interpretation is in response to your letter dated August 10, 1993, asking if a warning device meets the OSHA requirements for cranes requiring a positive acting device that prevents two-blocking when lifting personnel.

The DOE Hoisting and Rigging Manual states that mobile cranes are designed and intended for handling materials and not personnel. However, cranes are sometimes used to lift personnel, and in those cases, special procedures must be followed. Those special procedures include a positive acting device which prevents contact between the load blocks or overhead ball and the boom tip (anti-two-blocking device), or a system which deactivates the hoisting action before damage occurs in the event of a two-blocking situation (two-blocks damage prevention feature).

In summary, an anti-two-blocking device or two-block damage prevention feature that deactivates the hoisting action shall be used when lifting personnel.

RECORD ID D9308033

STANDARD NUMBER 1926.550(a)(1), 29 CFR 1910.179(n)(1), 29 CFR 1917.46(a)(1)(iii)
INFORMATION DATE 930927

ABSTRACT This interpretation addresses the requirements for a crane operator to be knowledgeable of the weight being picked up by a crane.

Crane operators are required to determine the approximate weight of the load before lifting, to help prevent any potentially hazardous situations. Allowing unknowledgeable persons to operate a crane would constitute a violation.

INTERPRETATION 29 CFR 1926.550(a)(1), 29 CFR 1910.179(n)(1),
29 CFR 1917.46(a)(1)(iii)

This interpretation is in response to your inquiry of August 19, 1993, asking whether it is a violation if the operator of a crane does not know the approximate weight of the load on the crane.

Three separate requirements address crane capacity and determination of loads. 29 CFR 1926.550(a)(1) (Cranes and Derricks) states that attachments used with cranes shall not exceed the capacity rating or scope recommended by their manufacturer. Further, 29 CFR 1910.179(n)(1) (Overhead and gantry cranes) states that a crane shall not be loaded beyond its rated load. Also, for maritime activities, 29 CFR 1917.46(a)(1)(iii) (Crane load and limit devices) requires the operator to determine the weight to be hoisted before making any lift. Therefore, allowing unknowledgeable persons to operate a crane would constitute a violation.

The Department of Energy (DOE) has further clarified the requirements in ordinary lift situations involving overhead and gantry cranes, in the DOE "Hoisting and Rigging" Manual which states that a designated leader of the lifting operation ensure that the weight of the load is determined. In addition, the operator or a designated person must ensure that the rated capacity of the crane will not be exceeded. For lifts using mobile cranes, the operator must know and always operate within the rated capacity of the crane. In critical lift situations, a specific "person in charge" must be appointed. This individual must ensure that a pre-lift plan has been prepared that identifies the weight, dimensions, and center of gravity of the item being lifted. The person in charge also must hold a pre-lift meeting on the plan.

It is DOE's position that management must have policies and procedures in place that will prevent a lift that exceeds the rated capacity of a crane. The most acceptable way is to require that a crane operator be knowledgeable of crane's capacity and that he or she determine the approximate weight of the load prior to attempting a lift.

DOE's Hoisting and Rigging Manual, Section 2. Operator Training and Qualifications, Subsection 2.1 states that "It is mandatory that all personnel who operate this equipment [cranes, forklifts, hoists, in-plant powered industrial trucks, and slings] are qualified in its safe operation. Also, it is necessary that these persons learn the special requirements for safe handling and use of the equipment they operate". Section 3. Overhead & Gantry Cranes, Subsection 3.1.1 states that "Operators of overhead cranes shall be trained and qualified as required in Section 2.0, "Operator Training and Qualification."

RECORD ID 91112201

STANDARD NUMBER 1926.550 (g)(3)(ii)(C), (g)(3)(i)(C), (b)(2)
INFORMATION DATE 19911122

ABSTRACT An interpretation concerning the use of cranes and OSHA's anti-two-block device requirements and requirements for holding brakes and hoisting brakes on winches on hydraulic cranes.

INTERPRETATION 29 CFR 1926.550 (g)(3)(ii)(C), (g)(3)(i)(C), (b)(2)

November 22, 1991

Dear Mr. L:

This is in response to your September 24 letter requesting an interpretation of the Occupational Safety and Health Administration (OSHA) requirements addressing the use of cranes. I apologize for the delay in responding to your inquiry.

In regard to whether the Gallon/Dresser cross-line relief system complies with OSHA's anti-two-block device requirements, please be advised by the following: The Gallon/Dresser two block damage prevention feature suspends hoisting and allows rope payout before damage occurs in the event of a two-blocking situation. Its use, therefore, would comply with this requirement. However, if an attachment is installed on the crane that could defeat the effectiveness of the device (i.e. a jib installed without stops that could flip over backwards in the event of two-blocking) then the crane would no longer be in compliance with 29 CFR 1926.550(g)(3)(ii)(C).

In regard to your question about what are the OSHA and ANSI requirements for holding brakes and hoisting brakes on winches on hydraulic cranes, please be advised that OSHA requires load and hoist drum brakes to be engaged when a personnel platform is occupied and in a stationary position. In addition, OSHA requires that all crawler and truck cranes meet the applicable requirements for design, inspection, construction, testing, maintenance and operation as prescribed in ANSI standard B30.5-1968. The ANSI standard requires a positive means be provided (controllable from the operators station) to hold the hoist drum from rotating in the lowering direction, and that it be capable of holding the rated load indefinitely without further attention from the operator. The ANSI standard also requires that brakes and clutches be provided with adjustments where necessary to compensate for wear and to maintain adequate force in springs where used. I have enclosed a copy of section 5-1.3 "Boom Hoist and Load Hoist Mechanisms," of ANSI Standard 30.5-1968 for your information.

If we can be of further assistance, please contact Mr. R. F. G. or D. R. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

RECORD ID 92041504

STANDARD NUMBER 1926.550 (a)(6)
INFORMATION DATE 19920415

ABSTRACT An interpretation of paragraph 1926.550(a)(6) of the Occupational Safety and Health Administration (OSHA) standard requiring the annual inspection of cranes and derricks, OSHA currently only grants accreditation to private agencies to perform required certification inspections on specialized cranes used in the maritime industry. OSHA currently has no program established to "recognize" agencies or individuals for the purpose of inspecting cranes used in construction in accordance with 1926.550 (a)(6).

INTERPRETATION 29 CFR 1926.550 (a)(6)

April 15, 1992

Dear Mr. T:

Your February 14 letter to Mr. R. A. C. requesting an interpretation of paragraph 1926.550(a)(6) of the Occupational Safety and Health Administration (OSHA) standard requiring the annual inspection of cranes and derricks has been referred to the Office of Construction and Maritime Compliance Assistance for response. I apologize for the delay in responding to your inquiry.

In regard to your question concerning how a private agency or person becomes recognized by the Department of Labor for purposes of crane inspections, please be advised that OSHA currently only grants accreditation to private agencies to perform required certification inspections on specialized cranes used in the maritime industry. Although listed as an alternative method of compliance in paragraph .550(a)(6), OSHA currently has no program established to "recognize" agencies or individuals for the purpose of inspecting cranes used in construction.

If we can be of further assistance, please contact Mr. R. G. or Mr. D. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

RECORD ID 92041505

STANDARD NUMBER 1926.550 (a)(1), (a)(16)
INFORMATION DATE 19920415

ABSTRACT An interpretation concerning what replacement parts can be used on a crane without the approval of the crane manufacturer. An employer can use replacement components without the approval of the crane manufacturer if the new components are equivalent in strength and durability and do not affect the rated capacity or the safe operations of the crane. If a replacement part (i.e. boom, shaft, gear, etc.) will affect the rated capacity or safe operation, then the modification or part can only be made with the written approval of the crane manufacturer. Placing a crane in operation without revising the load chart to reflect such a modification or part change, would constitute a violation of 1926.550(a)(16).

INTERPRETATION 29 CFR 1926.550 (a)(1), (a)(16)

April 15, 1992

Dear Mr. R:

Your February 12 letter to Mr. D. L. requesting an interpretation of Occupational Safety and Health Administration (OSHA) standards addressing the use of cranes has been referred to the Office of Construction and Maritime Compliance Assistance for response. I apologize for the delay in responding to your inquiry.

In regard to what replacement parts can be used on a crane without the approval of the crane manufacturer, please be advised that an employer can use replacement components without the approval of the crane manufacturer if the new components are equivalent in strength and durability and do not affect the rated capacity or the safe operations of the crane. If a modification or a replacement part (i.e. boom, shaft, gear, etc.) will affect the rated capacity or safe operation, then the modification or part can only be made with the written approval of the crane manufacturer and all affected instruction plates, load charts, and other related printed information must be revised accordingly. It is important to note that, placing a crane in operation without revising the load chart to reflect such a modification or part change, would constitute a violation of 1926.550(a)(16). Moreover, when the manufacturer has specified that unapproved replacement parts are not to be used, OSHA may presume an adverse effect on safety if this limitation is not followed. See 1926.550(a)(1).

In regard to what OSHA penalties may result from a citation issued for violations of these provisions, please be advised that, like all citations issued by OSHA, penalties are assessed based on the circumstances (including violation history of employer, seriousness of hazard, number of workers exposed, and other related factors) of each case.

If we can be of any further assistance, please contact Mr. R. G. or Mr. D. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523- 8136.

RECORD ID 93080501

STANDARD NUMBER 1926.550 (a)(5), (a)(6); 1926.32 (f)
INFORMATION DATE 19930805

ABSTRACT An interpretation letter addressing competent persons with regard to personnel performing inspections on hoisting equipment. Section 1926.55(a)(5) and (a)(6) requires that employees procure the services of a "competent person" to comply with the inspection requirements.

INTERPRETATION 29 CFR 1926.550 (a)(5), (a)(6); 1926.32 (f)

August 05, 1993

Dear Mr. S:

This is in response to your April 28 letter requesting an interpretation of the Occupational Safety and Health Administration (OSHA) standards addressing competent persons with regard to personnel performing inspections on hoisting equipment. I apologize for the delay in responding to your inquiry.

For the purposes of OSHA's safety and health standards for the construction industry, "competent person" is defined in 29 CFR 1926.32(f) as "one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them."

Section 1926.550(a)(5) and (a)(6) requires that employees procure the services of a "competent person" to comply with the inspection requirements. OSHA maintains that, in order to be a competent person for purposes of these standards, one must at least have had specific training in and be knowledgeable about hoisting machinery and equipment operations, manufacturer(s) specifications and recommendations, and other pertinent provisions of Subpart N-Cranes, Derricks, Hoists, Elevators, and Conveyors in 29 CFR Part 1926.

For example, a competent person performing hoisting machinery and equipment inspections would be capable of identifying existing and predictable hazards such as wear, damage, corrosion, system leaks, contamination, dust accumulations, etc., and have the authorization to take prompt corrective measures. Such measures may be repairs, part replacements, adjustments, systems disassembly, cleaning, or other activities necessary to eliminate the hazard potential surrounding the use of hoisting machinery and equipment.

If we can be of any further assistance, please contact me or Mr. D. C. of my staff at (202) 219-8136.

RECORD ID 92102302

STANDARD NUMBER 1926.556(a)(1); (b)(2)(ii); (b)(2); 1926.21(b)(2); 1926.32(d); (l); General
Duty Clause
INFORMATION DATE 19921023

ABSTRACT This letter answers a request for interpretation to the terms "Qualified, Certified, and Authorized" as utilized in OSHA's standard for aerial lift operation. Section 1926.21(b)(2) requires employers to instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment. Section 1926.556(b)(2)(ii) requires that: "only authorized persons shall operate an aerial lift." The term "authorized person" is defined at 1926.32(d) as "a person approved or assigned by the employer to perform a specific type of duty or duties or to be at a specific location or locations at the jobsite." There are no specific OSHA regulations that require aerial lift operators to be either certified or qualified.

INTERPRETATION 29 CFR 1926.556(a)(1); (b)(2)(ii); (b)(2); 1926.21(b)(2); 1926.32(d); (l);
General Duty Clause

OCT 23 1992

Dear Mr. M:

Your May 18 letter to Mr. J. K., the Occupational Safety and Health Administration (OSHA) Area Director for Forth Worth, was forwarded to this office for response. I apologize for the delay in replying to your inquiry as to OSHA's interpretations of the terms "certified" and "qualified" as used in ANSI standards for aerial lifts.

Aerial lifts are specifically addressed by OSHA at 29 CFR 1926.556. Paragraph (a) of that section requires aerial lifts to be designed and constructed in conformance with ANSI A92.2-1969 (including the appendix). The paragraph does not require the operation and use of equipment to be in conformance with the ANSI standard. There are two OSHA standards addressing the qualifications of lift operators. Section 1926.21(b)(2) requires employers to instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment. Section 1926.556(b)(2)(ii) requires that: "only authorized persons shall operate an aerial lift." The term "authorized person" is defined at 1926.32(d) as "a person approved or assigned by the employer to perform a specific type of duty or duties or to be at a specific location or locations at the jobsite." There are no specific OSHA regulations that require aerial lift operators to be either certified or qualified.

In the situation where operator capabilities are the issue, OSHA would first determine if the operator was trained and if no training was provided, issue a citation for violating 1926.21(b)(2). If training was provided, OSHA would need to use the general duty requirements of paragraph 5(a)(1) of the OSH Act to address any related violations. In so doing, OSHA would use the ANSI requirements to help establish what the industry practice is in regard to operator qualifications. Although OSHA defines the term "qualified" at 1926.32(l), the terms "certified" and "qualified" would have to be defined by ANSI in this case because it would be that organization's definitions of its own terms that would govern the application of its requirements. Consequently, it is that organization that must define the terms for you.

If we can be of further assistance, please contact Mr. R. F. G. or Mr. D. R. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 219- 8136.

RECORD ID

1412

STANDARD NUMBER

1926.601(a); (b)(8)

INFORMATION DATE

750625

ABSTRACT

This interpretation letter responds to a request for permanent variance from 1926.601(b)(8), the transport of company employees in a company vehicle on a publicly accessed road. Only motor vehicles operating within an off-highway job site, not open to public traffic, are covered by OSHA as specified at 1926.601.

(NOTE: This standard has not been amended since issue.)

INTERPRETATION

29 CFR 1926.601(a); (b)(8)

(Letter undated)

Assistant Secretary (Name) has asked me to response to your letter dated June 25, 1975, requesting a permanent variance from Section 1926.601(b)(8) - Motor Vehicles, of the Occupational Safety and Health Administration.

Apparently, our letters dated June 17, 1974 and May 27, 1975, did not reach you (copies enclosed).

In your telephone conversation with Mr. C, of my staff on July 1, 1975, you stated that your employees enter your company bus at the (XX) Company parking lot and are transported approximately one mile over paved, flat and level road used by public traffic (XX Company employees). Upon discharge from the bus, your employees walk the remaining 200 to 300 feet to their job site.

Based on the above information, it appears that your work practices in this instance are not covered by Section 1926.601. Section 1926.601(a) states, in part, motor vehicles as covered by this part are those vehicles that operate within an off-highway job site, not open to public traffic. The intent of this standard is to provide safe transportation for construction employees being transported to and from different locations under adverse conditions (uneven terrain, earth roadways, etc.) related to construction sites.

No further action will be taken on your variance application.

RECORD ID 1708

STANDARD NUMBER 1926.601(a); (b)(4)(i); (b)(4)(ii)
INFORMATION DATE 841210

ABSTRACT 1926.601(a), applies to vehicles which are used for both highway and off highway purposes on a jobsite, which is not open to public traffic. The employer is to ensure that the driver is provided unobstructed view (good visibility) of the rear of a motor vehicle, before allowing employees to back a vehicle without a reverse signal alarm or an observer.

INTERPRETATION 29 CFR 1926.601(a); (b)(4)(i); (b)(4)(ii)

DEC-10 1984

Dear Mr. S:

This is in response to your letter of November 15, requesting clarification of the Occupational Safety and Health Administration's (OSHA) standards for motor vehicles.

The standard, 29 CFR 1926.601(a), applies to vehicles which are used for both highway and off highway purposes on a jobsite, which is not open to public traffic.

One ton flat bed trucks and some other motor vehicles which have rear view mirrors on each side and a window in the rear of the cab may or may not have an obstructed view to the rear of the vehicle. The position of the mirror, the size and location of the load, and the size and location of a window in the rear of the cab must be checked by the employer to ensure that the driver is provided unobstructed view (good visibility) of the rear of a motor vehicle, before allowing employees to back a vehicle without a reverse signal alarm or an observer.

SOURCE LETTER

November 15, 1984

Gentlemen:

Pursuant to the introductory provisions of Volume 29 of the Code of Federal Regulations, I am writing to request the Department of Labor's legal interpretation or explanation of the regulation found at 29 CFR 1926.601. I am particularly interested in obtaining a summary of the type of motor vehicles which have been held to be covered by this section. Does this section apply to a vehicle which is used for both highway and off highway purposes on a job site which is not open to public traffic?

I am also interested in knowing what vehicles are considered to have an obstructed view to the rear. Does a one ton flat bed truck which has rear view mirrors on each side and a window in the rear of the cab have an obstructed view to the rear?

Any information you could provide me in regard to how 29 CFR 1926.601 has been interpreted would be appreciated. The case in which this issue has arisen will be tried on January 21, 1985. A prompt response will be appreciated.

RECORD ID

4030

STANDARD NUMBER
INFORMATION DATE

1926.601(b)(4)(i); (ii)
901023

ABSTRACT

This letter responds to correspondence regarding backup alarms on construction vehicles and a complaint that the sound of those alarms is distressing. OSHA requirements specify that when a driver's view to the rear is obstructed, the vehicle must be either equipped with an alarm or an observer must signal the driver that it is safe to proceed. If an alarm is used, it must be loud enough to be distinguishable from other sounds. Experience has shown the value of backup alarms in protecting workers and the general public. The complainant was advised to talk with representatives of the construction company to see if they could reduce the sound level safely.

INTERPRETATION

29 CFR 1926.601(b)(4)(i); (ii)

OCT 23, 1990

Thank you for your letter of September 26, regarding backup alarms on construction vehicles and your complaint that the sound of those alarms is distressing to you.

The Occupational Safety and Health Administration (OSHA) has two requirements relating to backup alarms. Both requirements are located in the construction safety and health standards and have application only to the motor vehicles and materials handling equipment used in construction operations. The OSHA requirements allow employers some flexibility in determining the best method to warn of the danger of a backing vehicle. Specifically, when a driver's view to the rear is obstructed, the vehicle must be either equipped with an alarm or an observer must signal the driver that it is safe to proceed. If an alarm is used, it must be loud enough to be distinguishable from other sounds.

Experience has shown the value of backup alarms in protecting workers and the general public. For example, we recently received a call from a citizen demanding to know why OSHA does not require backup alarms on trash trucks. The caller was distressed about the death of a blind woman who was killed as she crossed an alley as the trash truck was backing into the alley.

We can only suggest that you personally talk with the representatives at the construction site near you and ask if the sound level of the alarms can be reduced without endangering anyone. Please also keep in mind that these construction vehicles not only operate on construction sites and highways, but also in residential areas where small children may be at play.

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DOE Interpretations Guide to OSH Standards

July 1,1992

RECORD ID

91100102

STANDARD NUMBER
INFORMATION DATE

1926.601 (a), (b)(11)
19911001

ABSTRACT

An interpretation letter addressing if motor vehicles apply to end dump trucks operating on jobsites and on public highways between jobsites. All end dump trucks operating between jobsites on the public highways must comply with all the provisions of 29 CFR 1926.601 when the trucks enter off-highway jobsites. The term "other devices" used in 29 CFR 1926.601 (b)(11), means any system specifically designed by the manufacturer to prevent accidental tripping or operating of the haulage body hoist or dump mechanism.

INTERPRETATION

1926.601 (a), (b)(11)

October 01, 1991

Dear Mr. M:

This is in response to your July 3, 1991, request for clarification of whether the Occupational Safety and Health Administration's (OSHA) regulations addressing motor vehicles apply to end dump trucks operating on jobsites and on public highways between jobsites. We apologize for the delay in responding to your inquiry.

Please be advised that all end dump trucks operating between jobsites on the public highways must comply with all the provisions of 29 CFR 1926.601 when the trucks enter off-highway jobsites. However, if there is a conflict between these regulations and those of the U.S. Department of Transportation (DOT), then the DOT regulations have precedence while the trucks are operating on the public highways.

With respect to your question concerning the meaning of the term "other devices" used in 29 CFR 1926.601(b)(11), please be advised that it means any system specifically designed by the manufacturer to prevent accidental tripping or operating of the haulage body hoist or dump mechanism. Such a system may consist of a hydraulic interlock, an electric interlock, or a spring activated lever lock.

If we can be of any further assistance, please contact either R. F. G. or D. R. C. at (202) 523-8136.

SOURCE LETTER

July 3, 1991

Dear Mr. R:

It is requested that the applicability of the subject regulation be clarified in writing and forwarded to this requester as soon as possible. The unclear area to this requester is: Do all end dump trucks operating between jobsites on the public highways have to comply with the subject regulation when they enter an off-highway jobsite? If so, do all of the (b) General requirements apply including (b),(11). Also, in (11) the term "other device" and what would comply with this requirement? If you could cite examples of the "other device" it would be helpful.

Thank you for your time and consideration in this matter. If any additional information is required please call the undersigned.

RECORD ID 1787

STANDARD NUMBER 1926.602(a)(8)
INFORMATION DATE 860829

ABSTRACT This interpretation addresses service braking system requirements for rubber-tire off-highway equipment. All earth moving equipment mentioned in 1926.602(a) shall have a service braking system capable of stopping and holding the equipment fully loaded as specified in Society of Automotive Engineers SAE J237, Loader Dozer - 1971, J236, Graders - 1971, and J319b, Scrapers - 1971 regardless of the date of manufacture. Restrictions are also placed on fenders. Dates that the equipment was manufactured determine effective dates for implementation of brake requirements.

(NOTE: This standard has not been amended since issue).

INTERPRETATION 29 CFR 1926.602(a)(8)

AUG 29, 1986

This is in response to your recent letter requesting a clarification of 29 CFR 1926.602(a)(4).

29 CFR 1926.602(a)(4) requires all earth moving equipment mentioned in 29 CFR 1926.602(a) shall have a service braking system capable of stopping and holding the equipment fully loaded as specified in Society of Automotive Engineers SAE J237, Loader Dozer - 1971, J236, Graders - 1971, and J319b, Scrapers - 1971 regardless of the date of manufacture.

29 CFR 1926.602(a)(4) also requires brake systems for self-propelled rubber-tire off-highway equipment manufactured after January 1, 1972 shall meet the applicable minimum performance criteria set forth in the Society of Automotive Engineers Recommended Practices listed in the standard. 29 CFR 1926.602(a)(8) requires the equipment mentioned in paragraphs (a)(4) and (5) of this section, and manufactured before January 1, 1972, which is used by any employer after that date, shall meet the applicable rules prescribed herein not later than June 30, 1973. Therefore, A-3-brake systems is required for scraper equipment manufactured prior to January 1, 1972.

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DOE Interpretations Guide to OSH Standards

July 1, 1992

OSHA Instruction STD 3-13.1

OCT 30, 1978

OSHA PROGRAM DIRECTIVE #100-81

Subject: Clarification: 29 CFR 1926.603(a)(8) as Related to Tying Off Loft-workers, Top-men and/or Pile-monks

1. Purpose

The purpose of this directive is to clarify the application of 29 CFR 1926.603(a)(8) as it relates to tying off employees using work platforms or stirrups on sheet piling.

2. Documentation Affected

This directive supersedes Field Information Memorandum #75-12 dated February 6, 1975.

3. Background

As the result of a request to clarify the application of 29 CFR 1926.603(a)(8), the following is herewith forwarded:

Section 1926.603(a)(8) applies only to the tying off of employees working on fixed leads, and not to men working on top of steel sheet piling. However, the loft worker, top-man, and/or pilemonk on top of the sheeting shall be protected by the use of a work platform or stirrups.

4. Action

Under normal circumstances, CSHO's will not cite employers for failure to tie-off employees using work platforms or stirrups on sheet piling.

5. Effective Date

This directive is effective immediately and will remain in effect until canceled or superseded.

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DOE Interpretations Guide to OSH Standards

July 1, 1992

OSHA Instruction STD 1-15.5

OCTOBER 30, 1978

January 31, 1978

OSHA PROGRAM DIRECTIVE #100-94

Subject: 29 CFR 1926.604(a)(2)(i) and (ii) and 29 CFR 1910.266(d)(2)(v) and (vi); Use of 1/2-inch Plastic Sheets As A Substitute for Open Mesh Material

1. Purpose

The purpose of this directive is to provide specific clarification on the applicability of 1/2-inch plastic sheets as a substitute for open mesh material.

2. Documentation Affected

This directive supersedes Field Information Memorandum #76-14 dated April 6, 1976.

3. Background

As a result of several petitions for modifications or interpretations of 29 CFR 1910.266(d)(2)(v) and (vi) and 29 CFR 1926.604(a)(2), (i) and (ii), a review of specific test data provided to OSHA has been completed. This information is under consideration for the standards revisions.

4. Clarification

The use of 1/2-inch plastic sheets or other thicknesses of plastic sheets (that have the same physical properties) in lieu of 1 or 1 3/4-inch open mesh material is acceptable providing equivalent protection to the employee is assured. All panels shall be installed in a manner which can withstand the initial impact and maintain the protective barrier integrity. All panels must be labeled or marked to distinguish between acceptable materials and inferior panels.

5. Action

The foregoing will appear in a proposed revision. Until the standards have been revised, a violation of either referenced standard shall be considered de minimus, providing the preceding requirements are met.

6. Effective Date

This directive is effective immediately and will remain in effect until canceled or superseded.

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DOE Interpretations Guide to OSH Standards

July 1, 1992

OSHA Instruction STD 3-13.2

July 15, 1982

Subject: 29 CFR 1926.605 (a)(1) As Applied to Marine Construction.

A. Purpose. This instruction provides national guidelines to clarify the purpose and scope of 29 CFR 1926.605(a) (1) as it applies to marine construction material handling devices used in construction operations.

B. Scope. This instruction applies OSHA-wide.

C. Reference. OSHA Instruction CPL 2-1.3.B, June 14, 1982.

D. Action. OSHA Regional Administrators/Area Directors shall use the guidelines and procedures set forth in G. of this instruction.

E. Federal Program Change. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this change is forwarded to each State designee.
2. Explain the technical content of the change to the State designee as requested.
3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.
4. Review policies, instructions and guidelines issued by the State to determine if this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections and case file reviews) shall also be used to determine if this change has been implemented in actual performance.

F. Explanation: It was never intended that construction cranes or other construction lifting devices engaged in construction operations would be required to be tested and certificated in accordance with 29 CFR 1915.115(a) or 1918.13(a). However, when the construction employer is using this equipment in a longshoring or shipyard operation as defined below, and the material being loaded or discharged is handled as "cargo", or "shipyard repair material"; then these cranes or lifting devices shall be certified as required by 29 CFR 1915.115(a) and 1918.13(a).

29 CFR 1918.3 - Definitions.

(i) The term "longshoring operations" means the loading, unloading, moving, or handling of cargo, ship's stores, gear, etc., into, in, on, or out of any vessel on the navigable waters of the United States. (Emphasis added.)

29 CFR 1915.4 - Definitions

(i) The term "shipyard employment" means ship repairing, shipbuilding, shipbreaking and related employments as defined under (j), (k), (l) and (m) of this section:

1. Recent Commission and administrative Law Judge cases have held that when material is loaded or discharged from vessels as "cargo" it becomes a longshoring operation and the longshore safety and health regulations apply.

OSHA Instruction STD 3-13.2 (cont.)

2. 29 CFR 1926.605 applies to construction operations only. The definition of longshoring contained in 1926.605(a)(1) applies to construction operations carried out over the water. This has been confused with the original definition of longshoring contained in 29 CFR 1918.3 and has resulted in attempts to apply 1918 standards to construction operations, especially 1918.13 - "Certification of Shore-Based Material Handling Devices," which does not cover construction operations. The Office of Safety Standards will modify 29 CFR 1926.605(a)(1) to more clearly reflect the purpose and scope of 29 CFR 1926.605.

G. Guidelines and Procedures.

1. Construction employers engaged in marine construction operations are subject to the construction standards. Cranes and lifting devices used to move construction materials from shore to barge or from barge to the construction site are not required to be certificated. For example:

A construction employer has a crane mounted on a barge and loads material from the shore to the barge. The barge is then towed to the middle of a river to a bridge pier and the crane then hoists the material to the working site. This crane is not required to be certificated.

2. When it is determined that the employer is using shore-based cranes or other lifting devices to load or discharge material aboard vessels for transportation as "cargo" and the operation is identified as longshoring, the cranes or other lifting devices fall under the requirements of 29 CFR 1918 - Longshoring Standards and shall be certificated as required by 29 CFR 1918.13(a). For example:

A construction company uses mobile crawler cranes to load barges at a west coast port with construction material and equipment destined for the Alaska Pipe Line. Thus the material and equipment is "cargo." The cranes are performing a longshoring operation and must be certificated under 29 CFR 1918.13(a).

3. When it is determined that the employer is using derricks and/or cranes which are a part of, or regularly placed aboard barges, other vessels, or on the wingwalls of floating drydocks, and are used to transfer materials or equipment from or to a vessel or dry dock for the purpose of shipyard employment as defined under 29 CFR 1915.4(i) then these lifting devices must be tested and certificated as required by 29 CFR 1915.115(a). This is not intended to include incidental maintenance or normal upkeep performed on floating equipment during actual construction operations. It does cover major overhaul of floating equipment when such equipment is taken out of service and not being used for construction operations. For example:

A construction employer is overhauling his barges during winter lay-up. He is using a crawler crane mounted on a barge to transfer repair material from shore to the barges. This is identified as a ship repair operation and the barge mounted crane is required to be tested and certificated to the requirements of 29 CFR 1915.115(a).

4. The requirements for testing and certificating shore-based and barge mounted cranes and other lifting devices are contained in 29 CFR 1919 - Gear Certification and OSHA Instruction CPL 2-1.3B.

OSHA Instruction CPL 2.69

**September 19, 1985
Office of General Industry
Compliance Assistance**

Subject: Special Emphasis Program - Trenching and Excavation.

A. Purpose. This instruction establishes a National Emphasis Program (NAP) for the programmed safety inspection of trenching and excavation operations in accordance with the provisions of the Field Operations Manual (FOM), chapter II, E.2.b. (4).

B. Scope. This instruction applies OSHA-wide.

C. Action. Regional Administrators and Area Directors shall ensure that the procedures established in this instruction are adhered to in scheduling programmed inspections.

D. Federal Program Change. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this change is promptly forwarded to each State designee.
2. Explain the technical content of this change to the State designee as requested.
3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.
4. Review policies, instructions and guidelines issued by the State to determine if this change has been communicated to State program personnel. Routine monitoring activities shall also be used to determine if this change has been implemented in actual performance.

E. Background. Because of the continuing incidence of trench/excavation collapses and accompanying loss of life, the agency has determined that an increased OSHA enforcement presence at worksites where such operations are being conducted is warranted.

1. Trenching and excavation work creates hazards to workers which are extremely dangerous. Compliance with OSHA construction standards applicable to such operations is frequently bypassed because of economic pressures, a belief that compliance is unnecessary or an expectation that these short-term operations will go undetected.
2. Although it would be expected that, after more than 12 years of enforcement activity, most employers would be adhering to shoring and sloping requirements, experience has shown that such is not the case. OSHA believes that the rate of deaths and serious injuries resulting from trench/excavation accidents (mostly cave-ins) can be significantly affected only by a concentration of compliance resources within the area of trenching and excavation operations.
3. Currently 6 of OSHA's 10 Regions are already conducting local emphasis programs in this area. These local emphasis programs are all similar in nature. The decision has been made to replace these programs with a National Emphasis Program extended to all Regions.

OSHA Instruction CPL 2.69 (cont.)

4. The construction scheduling procedures outlined in the FOM cannot be used in scheduling inspections of trenching and excavation operations because the timing of such inspections is extremely important. These operations tend to begin and end quickly and must be inspected while they are in operation. Consequently, the following procedures are prescribed in scheduling these inspections.

F. Procedures.

1. All compliance personnel shall be instructed to be on the lookout for trenching or excavation worksites. Every observation of such operations shall be handled as follows:

a. Regardless of whether or not a violation is observed, whenever a CSHO sights or receives any other notice of a trenching or excavation operation (including nonformal complaints, other government agency referrals, and reports from members of the public) the CSHO shall:

(1) Make note of the state and condition of the work operation insofar as it is known, including any apparent serious hazards.

(2) Note the name and address or location of the worksite and the contractor performing the operation, if known.

(3) Contact the Area Office supervisor for a decision as to whether an inspection is required.

b. All trenching and excavation worksites brought to the attention of the Area Office shall be inspected as follows:

(1) If the worksite has been inspected within the last 30 days, the results of the inspection shall be considered along with the current observations of the CSHO.

(a) If trenching/excavation work was not in progress during the last inspection and there are apparent serious violations present at the current site, the supervisor shall authorize an inspection.

(b) If trenching/excavation work was in progress during the last inspection, the supervisor shall authorize an inspection only if apparent serious violations are present or can reasonably be expected at the current site.

(2) If the worksite has not been inspected within the last 30 days, an inspection shall be conducted unless it is apparent that the trench or excavation is less than 5 feet in depth or is in compliance with all OSHA standards governing such operations

c. Reports of imminent danger, fatality/catastrophe reports, formal complaints, safety and health agency referrals and media reports shall be scheduled as unprogrammed inspections, conducted as described in the relevant chapters of the FOM.

d. Nonformal complaints and other referrals involving trenching or excavation operations shall be scheduled as unprogrammed inspections under the NEP, conducted in accordance with procedures found in Chapter IX of the FOM. Such notices, therefore, need not be responded to with the usual letter to the employer.

OSHA Instruction CPL 2.69 (cont.)

e. An inspection scheduled under this NEP does not necessarily need to be inspected by the person making the original observation. A CSHO referral may be appropriate under the guidelines given in the FOM, Chapter IX, B.

2. The discovery of these worksites may be the result of a specific search to find this type of operation, at the discretion of the Regional Administrator. Although sightings normally will be those which occur during the course of routine travel during duty or nonduty hours, Regional policy may provide that the Area Director saturate areas of high construction activity for the purpose of identifying all trenching and excavation sites within that area as far as reasonably possible verification of information received from sources other than CSHO observation, as indicated in F.1.a. is also permitted under this NEP.

3. Documentation of the events leading up to the observation or the reporting of the trenching or excavation worksite shall be maintained by the Area Office in case of denial of entry.

4. When an inspection is not conducted because consent has not been obtained, a warrant normally shall be sought in accordance with the current procedure for handling such cases. A warrant may not be necessary, however, if the violations are in plain view. In such situations, the Regional Administrator shall contact the Regional Solicitor for guidance.

5. If the CSHO initially observing the work operation involving a trenching or excavation operation sees an apparently serious hazard in plain view, and if it is not convenient to contact the supervisor at the time, an inspection shall be conducted and the supervisor informed as soon as practical after the inspection has been completed.

6. The scope of inspections conducted under this NEP shall normally be limited to the trenching or excavation operation. If the inspection is to be expanded, the principles given in the FOM, Chapter VII, C.1.b. and d. shall be followed.

7. When conducting inspections in trenching or excavation operations, CSHOs shall be alert to the presence of minors who may be employed at such worksites. Because the Employment Standards Administration (ESA) has regulations related to the employment of minors between 16 and 18 years old in hazardous occupations (Hazardous Occupations Order No. 17), any indication during a trenching or excavation inspection that minors are so employed shall be reported as soon as reasonably possible to the Area Director who shall relay this information to the nearest Wage-Hour Area Office immediately upon receipt. The Regional Administrator shall be informed whenever such a referral has been made.

G. Recording in IMIS. The following guidelines shall be applied when recording inspections conducted under this NEP or other inspections where trenching or excavation operations are found:

1. Current instructions for completing the appropriate inspection classification boxes (Items 24 and 25) on the Inspection Report, OSHA-1 Form, as found in the IMIS Manual shall be followed for inspections under this NEP.

a. The OSHA-1 for any programmed inspection scheduled under the procedures in the FOM, Chapter II, E.2.b. (2) shall be marked "Planned" (Item 24h.), "Construction" (Item 25a.) and "National Emphasis Program" (Item 25d.). Record "TRENCH" in the space in Item 25d.

OSHA Instruction CPL 2.69 (cont.)

b. The OSHA-1 for any programmed inspection scheduled under this National Emphasis Program shall be marked "Planned" (Item 24h.) and "National Emphasis Program" (Item 25d.) Record "TRENCH" in the space in Item 25d.

c. The OSHA-1 for any unprogrammed inspection of a trenching or excavation operation shall be marked as unprogrammed (Item 24 a. through g. as appropriate) in addition it shall be marked "National Emphasis Program" (Item 25d.). Record "TRENCH" in the space in Item 25d.

2. Nonformal complaints, other government agency referrals and reports from the public reporting potential hazards related to trenching or excavation operations shall be recorded on an OSHA-7, Notice of Alleged Safety or Health Hazards, or an OSHA-90, Referral Report, if appropriate, in accordance with current IMIS instructions. They shall be recorded as unprogrammed inspections under the NEP as outlined in G.1.c.

I. Full-Service Program Support. The Area Office is encouraged to develop outreach programs which will support the enforcement effort. Such programs might consist in letters to employers who engage in trenching or excavation operations explaining the hazards involved and what OSHA standards require. Wide publicity could be given to the National Emphasis Program. Fatality reports involving accidents related to trenches or excavations could be widely distributed in the construction industries. Attention should be focused on the assistance offered by the 7(c)(1) consultation projects in the State.

OSHA Instruction CPL 2.87

FEB 20, 1990

SUBJECT: Inspection Procedures for Enforcing the Excavation Standards - 29 CFR 1926, Subpart P.

- A. Purpose.** This instruction establishes inspection procedures and provides clarification to ensure uniform enforcement of the Excavation Standards.
- B. Scope.** This instruction applies OSHA-wide.
- C. References.**
 - 1. Construction Safety and Health Standards, Subpart P., 29 CFR 1926.650, 651, and 652.
 - 2. OSHA Instruction CPL 2.45B, June 15, 1989, the Revised Field Operations Manual (FOM).
 - 3. OSHA Instruction CPL 2.34, September 1, 1979, the Construction SAVE's Manual.
- D. Cancellation.** OSHA Instruction STD 3-14.1, October 30, 1978, Citation Policy - Specific Trenching Requirements, is canceled.
- E. Action.** Regional Administrators and Area Directors shall ensure that the guidelines in this instruction are followed and that compliance officers are familiar with the contents of the standard.
- F. Federal Program Change.** This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:
 - 1. Ensure that this change is forwarded to each State designee.
 - 2. Explain the technical content of the change to the State designee as requested.
 - 3. Ensure that State designees acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include the State's intention to follow the inspection guidelines described in this instruction, or a description of the State's alternate guidelines which are "at least as effective as" the Federal guidelines.
 - a. If a State intends to follow the revised inspection guidelines described in this instruction, the State must submit either a revised version of this instruction, adapted as appropriate to reference State law, regulations and administrative structure, or a cover sheet describing how references in this instruction correspond to the State's structure. The State's acknowledgment letter may fulfill the plan supplement requirement if the appropriate documentation is provided.
 - b. Any alternative State inspection guidelines must be submitted as a State plan supplement within 60 days. If the State adopts an alternative to Federal inspection guidelines, the State's submission must identify and provide a rationale for all substantial differences from Federal guidelines in order for OSHA to judge whether a different State guideline is as effective as a comparable Federal guideline.

OSHA Instruction CPL 2.87 (cont.)

4. After Regional review of the State plan supplement and resolution of any comments thereon, forward the State submission to the National Office in accordance with established procedures. The Regional Administrator shall provide a judgment on the relative effectiveness of each substantial difference in the State plan change and an overall assessment thereon with a recommendation for approval or disapproval by the Assistant Secretary.
 5. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State personnel.
- G. Background. The Occupational Safety and Health Administration after 15 years of experience involving the adopted Federal standards for covered employees in the construction industry (36 CFR 25232 December 30, 1971) issued revised rules for Subpart P. to 29 CFR 1926 (54 CFR 45894 October 31, 1989).
1. These rules have been reviewed by the Advisory Committee on Construction Safety and Health (ACCOSSH) and many of the changes reflect their recommendations and those of other interested parties.
 2. On April 15, 1987, OSHA issued a notice of proposed rulemaking on excavations (52 FR 12288). After an extensive comment period and public hearings, the hearing transcript and related submissions were certified and closed on December 15, 1988.
 3. The final rule resolves many issues raised in earlier attempts to regulate this activity within the construction industry. Many of these issues involved previous decisions under the existing standard.
 - a. It is the intent of this rule to establish one set of requirements which are applicable to all excavations, including trenches.
 - b. Where compliance requirements are intended to be applicable only to trenches, the final rule makes it clear that these requirements apply only to those excavations which are also trenches.
 4. So that ongoing guidance may be provided, enforcement problems, including misinterpretations or other difficulties being experienced by employers and apparent efforts by employers to circumvent the standard, shall be promptly reported to the Office of Construction and Maritime Compliance Assistance.
- H. Inspection Guidelines (Compliance Procedures).
1. Excavation Protection Programs. This standard provides requirements which allow employers flexibility in developing programs that provide effective protection for employees working in excavations. In addition to the standard itself, the preamble provides further guidance and rationale for changes in the existing standard.
 2. Program Compliance. During all inspections at construction sites, where excavation standards are or will be applicable, compliance personnel shall ensure that compliance with 29 CFR 1926, Subpart P, Excavations, is in accordance with the FOM, Chapter III, D.7 and D.8.
 - a. This review shall include any documentation by employers of the methodology and background information used to determine whether shoring systems are required and the type of systems used.

OSHA Instruction CPL 2.87 (cont.)

- b. The compliance safety and health officer (CSHO) shall evaluate the employer's compliance with the specific requirements of the standard.
- 3. **CSHO Responsibilities.** The following procedural guidance provides a general framework that is designed to assist the CSHO with all inspections:
 - a. Ask the employer for the basis on which the employee excavation protection program related to the standard was developed.
 - b. Interview a representative cross-section of affected employees to verify the employer's program. This shall include an evaluation of the training of affected employees and the effectiveness of the employer's enforcement of its program. (See 29 CFR 1926.20(b)(1) and 1926.21(b)(2)).
 - c. Evaluate compliance with requirements for periodic inspection of excavations. (See 29 CFR 1926.651 (k) (1)).
 - d. Identify all persons (competent person, registered professional engineer, etc.) responsible for excavation activities and/or operations.
 - e. Evaluate compliance with training requirements identified by periodic inspections or changes in equipment and/or procedures. This shall include an evaluation of the effectiveness of the employer's inspection procedures and training program for assessment and correction of situations resulting in near misses and/or injuries or circumstances indicating that modifications are necessary. (See 29 CFR 1926.20(b)(1) and 1926.21(b)(2)).

4. **Specific Excavation Requirements.**

- a. **Scope and Application.** This subpart applies to all open excavations made in the earth's surface. Excavations are defined to include trenches. All trenches are excavations; all excavations are not trenches. (See 29 CFR 1926.650(a)).

NOTE: If installed form work or other similar obstructions reduce the depth-to-width dimensions for a particular excavation, it may become a trench as defined later in the specific requirements of this instruction.

- b. **Definitions.** The definitions contained in the excavation standard shall be relied upon to interpret and apply the standard properly. In some cases terms within a definition are themselves defined within the same section.
 - (1) **Accepted Engineering Practices.** CSHOs shall verify with the employer which aspects of the employee protection system have been designed or approved by a registered professional engineer. The name of such individual or, if a firm, the firm's name, the name of the engineer of record that approved the work for the firm, and the registration number shall be recorded.
 - (a) Field offices may review any work which must be certified as to the status of such certification with the State Board of Certification and Registration for Professional Engineers and Land Surveyors in their respective States of the on-site excavation conditions which the employer indicates are under the direct supervision of a registered professional engineer.

OSHA Instruction CPL 2.87 (cont.)

- (b) Verification shall also be made for all other aspects of the onsite excavation conditions which the employer indicates are under the supervision of a registered professional engineer.
 - 1 All inquiries relating to the adequacy of the engineering design shall be referred to the Regional Office of Technical Support (ARA-TS).
 - 2 In appropriate cases, the Regional Office may refer deficient or inadequate engineering designs of protective systems to the State Board of Certification and Registration for professional Engineers.
 - (c) Any equipment, shoring devices, shields or other special aspects of an employer's excavation program in which the compliance investigation reveals the use of a Registered Professional Engineer shall be so noted on OSHA 1-B during the on-site investigation. If such devices, shields or other special aspects of the employer's program do not comply with the requirements of the standard, appropriate citations shall be issued.
- (2) **Competent Person.** CSHOs shall pay particular attention to the investigation and documentation of data to establish that any person serving in this capacity possesses the capability of identifying existing and potential hazards for workers.
 - (a) To be a "competent person" under this standard, a person must have had training in, and be knowledgeable about, soils analysis, the use of protective systems and the requirements of this standard.
 - (b) The competent person having such training and knowledge must be capable of identifying existing and predictable hazards in excavation work and have the authority to take prompt measures to abate these hazards. Thus, a backhoe operator who would otherwise meet the requirements of the definition is not a competent person if the person lacks the authority to take prompt corrective measures to eliminate existing or potential hazards.
 - (3) **Hazardous Atmospheres.** The CSHO shall check for hazardous or oxygen deficient atmospheres. For example, these include irritating atmospheres which could be encountered in areas close to a landfill, where it is not uncommon to encounter hydrogen sulfide H₂S.
 - (4) **Registered Professional Engineer.** The CSHO shall determine that the Registered Professional Engineer of record is in fact working within a discipline applicable to the excavation work; i.e., it would be inappropriate for an electrical engineer to approve shoring design for an excavation. See also the definition for acceptable engineering practices in this instruction.
 - (5) **Tabulated Data.** The CSHO shall examine and ensure that all tabulated data for protective systems are approved by a Registered Professional Engineer.

NOTE: The use of tabulated data appearing in the appendices to this standard is excluded from this requirement.

c. General Requirements.

- (1) **Surface Encumbrances.** The standard requires that all surface encumbrances that are located so as to create a hazard to employees shall have been removed or supported, as necessary, to safeguard employees. The requirement is the same as the existing 1926.651(b) and applies to all employees at the construction worksite. (See 29 CFR 1926.651 (a)).
- (2) **Underground Installations.** The estimated location of utility installations, such as sewer, telephone, fuel, electric, and water lines, or any other underground installations that reasonably may be expected to be encountered during excavation work, shall have been determined prior to opening an excavation.

- (a) Utility companies or owners shall have been contacted, advised of the proposed work, and asked to establish the location of the utility underground installations prior to the start of actual excavation.

- 1 An employer need not contact utility companies where the excavation work is to be performed in a remote location where no underground installations are likely to be encountered and there are no features which would indicate the presence of underground installations.
- 2 When utility companies or owners cannot respond to a request to locate underground utility installations within 24 hours (unless a longer period is required by State or local law) or cannot establish the exact location of these installations, the employer may proceed, provided the employer does so with caution, and detection equipment or other acceptable means of locating utility installations are used.
- 3 The employer is required, while the excavation is open, to ensure that underground installations are protected, supported, or removed to safeguard employees from hazards. (See 29 CFR 1926.651(b)(2) and (3)).

- (b) The CSHO shall ascertain whether the employer has contacted the appropriate utility companies to establish the location of underground installations that may be encountered.

NOTE: Many States require the "one call system" prior to the start of excavation work. (See 29 CFR 1926.651(b)(2)).

- (c) When excavation operations approach the estimated location of underground installations, the exact location of the underground installation shall be determined by means that are safe to employees. (See 29 CFR 1926.651 (b)(3)).
- (d) The CSHO shall determine that underground installations have been protected, supported or removed as necessary to protect employees. (See 29 CFR 1926.651 (b)(4)).
- (e) The sloped end of a trench, e.g., an earth ramp, may be considered a safe means of egress only if employees are able to walk the ramp in an upright manner when entering or exiting the trench.

OSHA Instruction CPL 2.87 (cont.)

- 1 The CSHO shall consider such factors as the degree of the slope, depth of the excavation, soil and environmental conditions, and the presence of any obstructions in determining whether or not the earth ramp can be used for safe egress.**
 - 2 An employer may not use knotted rope lines to assist employees using sloped areas as access to trenches.**
 - 3 OSHA does not consider lifting equipment as "an other safe means of egress." For example, employees riding in a backhoe bucket to either enter or exit trench excavations, is not "other safe means of egress" for purposes of the standard. (See 29 CFR 1926.651(c)(2) and 54 FR 45918 (Oct. 31, 1989)).**
- (f) The prohibition against employees being under loads handled by lifting or digging equipment includes both excavated materials and slung loads (pipe, etc.). (See 29 CFR 1926.651(e)).**
- (g) The CSHO shall ensure that an adequate warning system has been provided for mobile equipment operating adjacent to or without a clear view of the edge of excavations.**

NOTE: This requirement does not apply to equipment used to push spoil back into the excavation for backfilling. (See 29 CFR 1926.651(f)).

- (3) Hazardous Atmospheres. In addition to the requirements set forth in Subparts D and E of this part (29 CFR 1926.50--1926.107), to prevent exposure to harmful levels of atmospheric contaminants and to ensure acceptable atmospheric conditions, the following additional requirements apply: (See 29 CFR 1926.651(g)).**
- (a) Air quality tests shall be taken before employees enter excavations more than 4 feet in depth when a hazardous atmosphere exists or could be expected to exist.**
 - (b) Tests shall be conducted as often as necessary to ensure the quality and quantity of the atmosphere. This includes checks for flammable gases and oxygen O₂ deficiency.**
 - (c) Where hazardous atmospheres exist or may reasonably be expected to exist, emergency rescue equipment must be on the worksite and readily accessible to employees. (See 29 CFR 1926.651(g)(2)(i)).**
 - (d) Daily inspections must be conducted by a competent person. Evidence of the lack of such inspections may include indication of failure of protective systems or employees exposed to hazardous atmospheres. (See 29 CFR 1926.651(k)(1) and (2)).**

d. Requirements for Protective Systems.

- (1) When the employer has elected to protect employees by sloping, 1926.652 (b)(1) requires that the slope be not steeper than 1.5H:1V "unless the employer uses one of the other options ..."**

OSHA Instruction CPL 2.87 (cont.)

- (a) In a contested case proceeding once OSHA shows that no support system was used and that the sides of the excavation were steeper than 1.5H:1V, the employer has the burden of showing its compliance with one of the other sloping options.
 - (b) The CSHO, however, shall document all relevant facts to evaluate the hazard to obtain information which may be necessary for rebuttal of the employer's case.
- (2) If the CSHO observes that a protective system appears inadequate or in danger of failure, the employer's representative or competent person shall be notified immediately so as to remove any employees in the excavation until such danger of failure has been abated. (See 29 CFR 1926.652 (a)(2)).
- (3) In evaluating the design of sloping and benching systems, the CSHO shall refer to the decision chart found in Figure 2 of Appendix F, Selection of Protective System. (See 1926.652(b)(1) through (b)(4)).
- (4) In evaluating the design of support systems, shield systems and their protective systems, the CSHO shall refer to the decision chart found in Figure 3 of Appendix F, Selection of Protection Systems. (See 29 CFR 1926.652(c)(1) through (c)(4)).
- (5) The CSHO shall examine appropriate structural members of any protective system for damage or defects. (See 29 CFR 1926.652(d)(1)).
- (6) Observation by CSHOs of excavations beneath the protective system requires confirmation that the support system was designed to resist forces calculated for the full depth of the trench. (See 29 CFR 1926.652 (e)(2)(i) and (g)(2)).

e. Appendices in the Standard.

- (1) The following compliance guidelines apply whenever CSHOs encounter excavation operations where employers have elected to provide protective systems using the appendices in this standard. CSHOs shall provide documentation, including soil tests where applicable, to support or reject the employer's decisions on protective systems.
- (2) When the employer elects to use sloping option 2 or support option 1, the soils classification procedures are mandatory. Employer guesses or other shortcuts taken in classifying soils do not meet the intent of the standard.
 - (a) Thus, citations shall be issued where one or more provisions of Appendix A have been violated even if the degree of sloping turns out to be appropriate.
 - (b) Example: A backhoe operator slopes an excavation at what turns out to be an appropriate slope, but the operator is not a competent person within the meaning of the standard, and his determination was not based on both one visual and one manual test. 1926.652(a) will be cited, but the gravity of the violation will be reduced. (See 29 CFR 1926.652(a)(1)).

OSHA Instruction CPL 2.87 (cont.)

- f. Appendix A to Subpart P - Soil Classification.** This appendix describes a method of classifying soil and rock deposits based on site and environmental conditions and on the structure and compaction of earth deposits. Appendix A contains further definition directly related to soil classification.
 - (1) The classification of soil and rock deposits shall be made based on the results of at least one visual and one manual test.**
 - (a) Such analysis shall be conducted by a competent person using the tests described in paragraph (d) of this appendix.**
 - (b) The specific soil tests referenced in this Appendix are given as examples for an employer to use in making a soil classification. However, other recognized methods of soil classification and testing, such as those adopted by the American Society for Testing Materials (ASTM) , are acceptable for purposes of compliance with the standard.**
 - (c) The competent person conducting the soil classification may not base a classification by "feeling" the strength or composition of the soil through the use of heavy equipment.**
 - 1 This method is not an acceptable "other recognized method" of soil classification and testing" contemplated by Appendix A, (c)(2).**
 - 2 OSHA believes this is too indirect a method to classify properly the qualitative as well as the quantitative properties of soil.**
 - 3 For example, an employer may not classify the soil as Type A solely because its backhoe experienced difficulty digging the excavation.**
 - (2) Each soil and rock deposit shall have been classified by a competent person as either stable rock, Type A, Type B, or Type C in accordance with the definitions set forth in paragraph (b) of Appendix A.**
 - (3) In a layered system, the system shall have been classified in accordance with its weakest layer. However, each layer may be classified individually where a more stable layer lies under a less stable layer.**
 - (4) If, after classifying soils and rock deposits, the properties, factors, or conditions affecting its classification change in any manner, such as after a rainstorm, such changes shall have been evaluated by the competent person on site. The soil and rock deposits shall have been reclassified as necessary to reflect any changed circumstances.**
- g. Appendix B to Subpart P - Sloping and Benching.** Under section (c)(3)(ii) of this Appendix, whenever surcharge loads from stored material or equipment, operating equipment, or traffic are to be present, the competent person's determination of the degree to which the actual slope must be reduced below the maximum allowable slope shall have been based on the requirements set forth in (c)(3)(ii). The requirement to slope back in accordance with (c)(3)(ii) shall be triggered in situations where the surcharge loads cause signs of distress.

OSHA Instruction CPL 2.87 (cont.)

- h. Appendix C to Subpart P - Tables.** The compliance officer should note that Tables C-1.1-1.3 are actual size measurements based on mixed oak or equivalent with a bending strength not less than 850 psi. On the other hand, Tables C-2.1, 2.2 and 2.3 are nominal (S4S-Surface 4 Sides) measurements based on Douglas fir or equivalent with a bending strength not less than 1500 psi.
 - i. Appendix D to Subpart P - Aluminum Hydraulic Shoring for Trenches.** This appendix contains criteria that can be used when aluminum hydraulic shoring is to be used as a method of protection in trenches not exceeding 20 feet in depth, in the absence of manufacturer's tabulated data. The appendix is provided for those situations where manufacturers' data, permitted under paragraph 1926.652(c) (2), has been lost or is otherwise not available. When referenced, Appendix D must be used in conjunction with Appendix A, Soil Classification.
 - I. Training.** Field inspection procedures must be modified to reflect the more technical nature of soils classification and protection systems requirements of the new standard. To classify soils properly, visual and manual tests must now be performed. It is imperative that CSHOs be trained in the techniques used in these tests. The training program will consist of detailed instructions on the new standard and the compliance directive.

 - 1. Train-the-trainer sessions** on the new standard will be conducted at the OSHA Training Institute. These trainers will then conduct sessions for their respective Regional and Area Offices.
 - 2. This program** will supplement OSHA Training Institute Course 301, Excavation, Trenching and Soils. Additional training will be developed and presented as needed to maintain currency of the new excavation standard for CSHOs.
- J. SAVE's.** Existing SAVE's for 29 CFR 1926.651 and 1926.652 as found in the existing Construction SAVE's Manual, OSHA Instruction CPL 2.34, shall not be used for citation of excavation or trenching violations after March 5, 1990. The attached draft SAVE's are provided for interim use and may be modified, as deemed appropriate, at the discretion of the Regional Administrator, to accommodate local circumstances, until the final SAVE's are published and distributed.

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DOE Interpretations Guide to OSH Standards

July 1,1992

RECORD ID 92102702

STANDARD NUMBER 1926.650(b); 1926.652(c)(2); (c)(3)(iii); (c)(4)(ii)(B)
INFORMATION DATE 19921027

ABSTRACT This letter responds to a request for clarification of the requirements of OSHA's excavation standard 1926 Subpart P. The specific question concerned whether or not OSHA requires manufacturer's tabulated data (MTD) to identify a registered professional engineer 1926.652(c)(2). Although some options do not specifically require the engineer who prepared the MTD to be identified, 1926.650(b) MTD by definition means tables and charts approved by a registered professional engineer. Without proof of this approval, such as an engineers stamp, it will be difficult for a contractor using an MTD based system to establish compliance with the requirements of Subpart P. Therefore, it may be advantageous to provide this information although it is not required.

INTERPRETATION 29 CFR 1926.650(b); 1926.652(c)(2); (c)(3)(iii); (c)(4)(ii)(B)

OCT 27 1992

Dear Mr. R:

This is in response to your September 24 letter requesting the Occupational Safety and Health Administration (OSHA) to clarify the requirements of 29 CFR 1926, Subpart P -- Excavations.

Your specific question concerns whether or not OSHA requires manufacturer's tabulated data (MTD) to identify a registered professional engineer. The OSHA regulations at 1926.652(c) Design of Support Systems, Shield Systems, and Other Protective Systems, set forth four options for the design of protective trench systems. Option (3) - Designs using other tabulated data, and Option (4) - Design by a registered profession engineer, respectively require the registered professional engineer who develops the tabulated data or approves the design of the protective system to be identified in writing and such information must be maintained at the jobsite. However, the other options, including Option (2) - Designs Using Manufacturer's Tabulated Data, do not specifically require the registered engineer to be identified in writing. The confusion among your customers may stem from these differences.

Please note, however, that although Option (2) does not specifically require the engineer who prepared the MTD to be identified, MTD by definition means tables and charts approved by a registered professional engineer. Without proof of this approval, such as an engineers stamp, it will be difficult for a contractor using an MTD based system to establish compliance with the requirements of Subpart P. Therefore, it may be to your benefit to provide this information although it is not required.

If you have further questions, please do not hesitate to contact me or Mr. D. C. of my staff at (202) 219-8136.

RECORD ID 92080501

STANDARD NUMBER 1926.651(k)(1)
INFORMATION DATE 19920805

ABSTRACT There is no blanket requirement in 29 CFR 1926.651(k)(1) that a competent person be present at a construction jobsite at all times. The competent person can leave the site periodically, consistent with the goals of this section. It is the responsibility of the competent person to make those inspections necessary to identify situations that could result in hazardous conditions, and then to insure that corrective measures are taken.

INTERPRETATION 29 CFR 1926.651(k)(1)

AUG 5 1992

Dear Mr. F:

This is in response to your June 18 letter requesting an interpretation of the Occupational Safety and Health Administration (OSHA) standard addressing competent person responsibilities at excavations. I apologize for the delay in responding to your inquiry.

In regard to whether the competent person mentioned in 29 CFR 1926.651 (k)(1) must be on site at all times, please be advised that there is no blanket requirement that a competent person be present at a construction jobsite at all times. The competent person can leave the site periodically, consistent with the goals of this section. It is the responsibility of the competent person to make those inspections necessary to identify situations that could result in hazardous conditions (e.g., possible caveins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions), and then to insure that corrective measures are taken. It is, therefore, subject to the conditions present at each individual worksite whether or not a competent person is required to be present at the jobsite at all times.

If we can be of any further assistance, please contact Mr. R. F. G. or Mr. D. R. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136 until September 27 and (202) 219-8136 thereafter.

RECORD ID 91010901

STANDARD NUMBER 1926.651 (k)(1); 1926.652 (b)(1), (b)(2), (c), (c)(1), (c)(2), (c)(3), (c)(4);
1926.20 (b)(2); 1926.21 (b)(2)
INFORMATION DATE 19910109

ABSTRACT An interpretation letter clarifying the responsibilities and conduct of a competent person while classifying soil at an excavation. The responsibilities and conduct of the competent person at excavation sites will vary with the specific requirements specified at 29 CFR 1926.652.

INTERPRETATION 1926.651 (k)(1); 1926.652 (b)(1), (b)(2), (c), (c)(1), (c)(2), (c)(3), (c)(4);
1926.20 (b)(2); 1926.21 (b)(2)

January 09, 1991

Your understanding of the responsibilities and conduct of a competent person while classifying soil at an excavation, as stated in your memorandum of September 25, is essentially correct. However, the responsibilities and conduct of the competent person at excavation sites will vary with the specific requirements specified at 29 CFR 1926.652.

29 CFR 1926.651(k) requires that an inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Daily inspections of the excavation, adjacent areas, and protective systems shall be made by a competent person. In situations where no competent person is determined to be available to conduct the daily inspections, 29 CFR 1926.651(k) must be cited.

Employers who elect to comply with the specifications of option 1, at 29 CFR 1926.652(b)(1), meet all the necessary requirements of the standard, except that a competent person must perform daily inspections as required at .651(k). Such inspections can be anticipated to primarily address hazardous atmospheres, or localized problems related to rainstorms and/or changing weather conditions.

Employers who elect to comply with the requirements of option 2 through 4, at 29 CFR 1926.652(b)(2), (3) and (4), must conduct, with the services of a competent person, the initial and daily visual inspections together with appropriate manual tests of the soil along the excavation. The slope, shoring, or shield system used must reflect the results of such inspections and tests if any of the soil is determined to be type A or B or equivalent as designated by the registered professional engineer (R.P.E.). Visual observation and at least random manual testing is required if no visual changes are noted. Type C soil need not be manually tested once it is visually determined to be type C and an appropriate protective system is in place. On the other-hand, type A or B soil must be manually tested to verify their type. During the daily or other inspection, required at .651(k), the competent person must visually ascertain if soil changes are occurring which could lower the classification of the previously categorized soil type. If, in the competent person's opinion (which is based upon the visual criteria of the standard), deteriorating soil changes are occurring or have occurred, manual testing is mandatory and the soil classification must be ascertained. For instance, where type A soil has deteriorated to type B, based upon visual observation, manual testing is a must to confirm the condition of the soil. Whenever the soil is being downgraded to type C and a corrective protective system is put in place, no manual testing is required or necessary. It must be realized that once an excavation is opened, the soil type observed to exist at the time of opening will not improve with time; it can only deteriorate.

In further response to the concerns of the Regional SOL, we provide the following:

During initial opening of an excavation and where the job moves along through changing types of soil, the competent person must determine the respective types of soil as the job progresses. In order to correctly ascertain the soil types, the competent person must identify the locations and the limits of each type of soil, and must conduct visual and all appropriate manual tests to classify the initial (opening) soil types observed.

Regarding the issuance of citations related to no competent person available at the site, we offer the following:

The specific standard related to excavations is subpart P of 29 CFR 1926. The general requirements of 29 CFR 1926.20(b)(2) and .21(b)(2) are not to be cited under the guidance of the FOM of chapter IV, A.1.a. (4)(a), when a vertical or specific standard addresses the issue/circumstances. The requirements for inspection by a competent person are mandated by subpart P and therefore the general requirements are inapplicable to excavation.

Protective systems for excavations which are in compliance with the requirements of 29 CFR 1926.652(c) must be inspected daily to verify that the support systems installed remain effective. The knowledge and experience of the competent person is therefore considerably greater than that required of a competent person under the requirements of 29 CFR 1926.652(b).

Protective systems constructed to the requirements of 29 CFR 1926.652(c), option 1, must be inspected against the requirements of appendices A, C or D. The competent person must be thoroughly knowledgeable of those requirements and must inspect daily to assure the continuing integrity of the system.

Protective systems constructed to option 2, of 29 CFR 1926.652(c), must be inspected against the manufacturer's specifications, recommendations, and limitations for the system and must verify that any deviation, if one was issued, continues to meet the manufacturer's specific written approval. The competent person must be thoroughly knowledgeable of the limitations of the manufactured system.

Protective systems constructed to the option 3 requirement, of 29 CFR 1926.652(c), must meet the stipulations of the tabulated data which must be approved by a registered professional engineer. The competent person who inspects the system, on a daily basis, must be able to verify that the system continues to maintain the integrity required by the tabulated data. In the event that local deviations are noted, the competent person should consult with a registered professional engineer who can recommend proper corrective measures.

Option 4, of 29 CFR 1926.652(c), requires that the protective system be designed by a registered professional engineer (R.P.E.). The competent person who inspects the system, on a daily basis, must be knowledgeable of the system design and its limitations. The competent person should report all deviations noted during inspections to the R.P.E. so that proper corrective measures can be taken.

In the event that the employer permitted employees to enter an excavation which was alleged to comply with CFR 1926.652(b) or (c), a violation of the standard exists if no competent person is determined to be available. In such an instance, both 29 CFR 1926.651(k) and .652(b) or (c) must be cited and may be grouped as appropriate.

Modification of the compliance directive OSHA Instruction CPL 2.87, dated February 20, 1990, is contemplated. The information of this memorandum, further clarification of the standard and relevant enforcement policy will be addressed by change A.

RECORD ID 92032301

STANDARD NUMBER 1926.651 (h)(1), (g)(2)(i), (c)(1), (g)(1); 1926.652 (c)(3)(iii), (c)(2), (d)(3), (k), (l)(2)(iv), (a)(2); 1926.650 Appendix A, (d)(2)(iii); 1926.1053 (b)(6), (b)(7)
INFORMATION DATE 19920323

ABSTRACT An interpretation addressing excavations work under the construction standard questions regarding excavations work: can workers enter a trench that has accumulated water; if a stairway or ladder is necessary in a trench where there is a break in elevation of 19 inches or greater; availability of emergency rescue equipment at every trenching jobsite; a manufacturer tabulated data for every specific shield use on-site; recertification of protective shields that have been damaged; is a competent person required to be at the jobsite at all times is registered professional engineer (RPE) approval required when digging below footing foundation, retaining wall, sidewalk or pavement; could a trench be considered a confined space; trenching along a hillside; utilization of the thumb test for estimating soil compressive strength.

INTERPRETATION 29 CFR 1926.651 (h)(1), (g)(2)(i), (c)(1), (g)(1); 1926.652 (c)(3)(iii), (c)(2), (d)(3), (k), (l)(2)(iv), (a)(2); 1926.650 Appendix A, (d)(2)(iii); 1926.1053 (b)(6), (b)(7)

March 23, 1992

Dear Mr. K:

This is in response to your September 20 request for interpretation of the Occupational Safety and Health Administration (OSHA) construction standards addressing excavations. I apologize for the delay in responding to your inquiry.

In regard to whether workers can enter a trench with water accumulation if the workers are protected from cave-in by shoring, shields or sloping and the water level is controlled, please be advised by the following: Paragraph .651(h) of 29 CFR 1926 allows workers to work in a trench with water accumulation, provided adequate precautions have been taken to protect employees against the hazards posed by water accumulation. The precautions necessary to comply with the standard vary with each situation, and the precautions you listed, such as additional shoring and control of the water level may not, in all cases, provide the required employee protection.

In regard to whether a stairway or ladder is required at points of access to a trench where there is a break in elevation of 19 inches or more, please be advised that since the specific excavation standard also addresses means of access and egress, the more general requirement in the stairways and ladders subpart is not applicable. A ladder, stairway, ramp or other safe means of access is required only when the trench is four feet or more in depth.

In regard to whether emergency rescue equipment is required at every trenching jobsite located near or passing by a gas station, refinery, gas line, sewer main, etc., please be advised by the following: Emergency rescue equipment is required to be readily available where a competent person determines, based on the conditions at each jobsite, that hazardous atmospheric conditions exist or may reasonably be expected to develop during work in an excavation. In regard to whether a contractor can rely on a local rescue squad instead of providing the rescue equipment, please be advised that many emergency situations associated with the hazards involved with hazardous atmospheres in trenches would normally require an immediate response within a few minutes or even seconds. A rescue squad would be unable to provide the necessary response and therefore could not be used to comply with 1926.651(g)(2).

In regard to whether a contractor must have separate manufacturer's tabulated data on hand for each specific shield, please be advised that only one set of tabulated data is required for each different shield design. If a contractor uses several shields of the identical make and model, only one set of tabulated data would be required for them.

In regard to whether manufacturer's tabulated data can be used to design protective systems for trenches more than 20 feet in depth, please be advised as follows: Protective systems that are designed using manufacturer's tabulated data can be used in trenches deeper than 20 feet provided the use is within the limits of the data, including depth limitations and soil type. It should be noted that all tabulated data, by definition (1926.650), must be approved by an RPE.

In regard to the need to recertify protective systems that have been damaged or repaired, please be advised as follows: Shields or other protection systems, damaged to the extent that the structural integrity or the ability of the system to perform as designed is affected, cannot be used until repaired and recertified by a Registered Professional Engineer (RPE) or the manufacturer of the system. Minor repairs or normal maintenance done in accordance with manufacturers specifications do not need recertification.

In regard to how ladders must be secured in trenches, please be advised that paragraphs 1926.1053(b)(6) and (7) address ladder footing displacement which is not normally a problem in trenches. If a ladder needs to be secured against tipping, it may be secured to a shield or member of a protective structure provided the ladder does not alter the effectiveness of the protective system.

In regard to whether a competent person must be present at a trench at all times, please be advised that it is not normally necessary for a competent person to be at a jobsite at all times. However, it is the responsibility of a competent person to ensure compliance with applicable regulations and to make those inspections necessary to identify situations that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions, and then to insure that corrective measures are taken. Consistent with these goals, the competent person may perform other duties.

In regard to whether an RPE must approve all work when digging below a footing, foundation, retaining wall, sidewalk or pavement, please be advised by the following: An RPE approval is not required when the excavation is not "reasonably expected to pose a hazard to employees." In situations where it is reasonably expected to pose a hazard, an RPE approval is not required when a support system, such as underpinning, is provided to ensure the safety of employees and the stability of the structure, or the excavation is in stable rock.

In regard to the conditions under which OSHA would consider a trench a confined space, please be advised that under normal circumstances, a trench would not be considered a confined space. The excavation standards address the hazards associated with employees entering potentially harmful atmospheres by requiring atmospheric testing and controls where hazardous atmospheres exist or could reasonably be expected to exist.

In regard to trenching along a hillside where the trench walls are at different heights, a contractor must provide a support system that will withstand the forces present at the bottom of the deepest side, or rely on a protective system approved by an RPE.

In regard to whether OSHA will accept a thumb test when estimating the compressive strength of soil, please be advised that the thumb penetration test is one of the acceptable methods of estimating soil compressive strength. The compressive strength can be determined by laboratory testing, or estimated in the field using a penetrometer, sheervane, thumb penetration tests, as well as by other methods.

I hope these explanations will be helpful to you and your members. If we can be of any further assistance, please contact R. F. G. or D. R. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

SOURCE LETTER

September 20, 1991

Dear R,

Our members are concerned about the way the Excavation Standard is being interpreted in different parts of the country. They have requested that I contact you to have some parts of the standard clarified.

If possible, please provide me with interpretations for the following questions, so that I can disseminate it to our members.

- 1. Can workers enter a trench with water accumulation if the workers are protected from cave-in by shoring, shields or sloping, and the water level is controlled?**
- 2. The Stairways and Ladders Standard requires that a stairway or ladder shall be provided at points of access where there is a break in elevation of 19 inches or more. The Excavation Standard requires a ladder or other means of access and egress when the trench is 4 feet or more. Which of these requirements is applicable to trenching operations?**
- 3. Must rescue equipment be available at every trenching jobsite that is located near or passes by a gas station, refinery, gas line, sewer main, etc? Can a contractor rely on the local rescue squad since they are probably better equipped to handle a rescue?**
- 4. If a contractor has several of the same make and model trench shields at a jobsite, does he have to have separate manufacturer's tabulated data on hand for each specific shield? We have been told that the shields and the data sheets must have the same serial number in order to be in compliance.**
- 5. Do excavations greater than 20 feet have to be designed by an RPE or can manufacturer's tabulated data be used in lieu of an RPE? For example, a contractor may have boxes rated for depths greater than 20 feet.**
- 6. Does a RPE have to recertify a trench shield if the skin is patched? If the rail from an aluminum hydraulic shoring system is bent slightly out of shape, does it have to be removed from service, repaired and recertified by an RPE? At what point does an RPE have to recertify equipment that has been repaired?**
- 7. We clearly understand that a ladder has to be secured, but we are not sure how. Contractors have informed us that compliance officers have told them that they can not secure a ladder to the shoring system or in some cases the trench shield. These same contractors have been told to secure the ladder by driving a stake into the ground and to tie the ladder off to the stake. This alternate method presents three different problems: 1) It is not always possible to drive a stake through concrete or asphalt sidewalks or pavement; 2) This method creates a tripping hazard next to the trench; 3) Some contractors believe that driving a stake could create a stress crack. Please clarify these requirements for us?**
- 8. Does the competent person have to be standing by the trench at all times during the work shift or can he/she go off site for short periods of time, such as lunch, meeting, or maybe to pick up supplies at the local builders supply store? Can the competent person move around the jobsite away from the trench? Often the foreman is the competent person and he may have other responsibilities at the jobsite.**
- 9. Must a RPE approve all work when digging below a footing, foundation, retaining wall, sidewalk or pavement? We recognize the need for an RPE to design a system to support buildings and structures. However, we don't agree that an RPE is needed to layout a system to support sidewalks,**

pavement, and in some cases small structures like a small retaining wall. It is often very difficult to find an RPE who is willing to take on small incidental projects.

10. At what point and under what conditions would OSHA consider a trench a confined space?
11. When trenching along the side of a hill, what criteria should a contractor use to determine the depth of the trench?
12. Some compliance officers are telling contractors that they must use a penetrometer or sheervane to estimate the compressive strength of soil and that the thumb test is unacceptable. Keeping in mind that these are field tests. We realize that the thumb test is not accurate, but neither is the penetrometer that many compliance officers swear by. What is OSHA's interpretation for using a thumb test versus an instrument?

These questions are common and in several cases contractors have been cited. We are concerned and want to make sure our members clearly understand the regulations.

OSHA Instruction STP 2-1.157

**January 16, 1990
Office of State Programs**

Subject: Occupational Safety and Health Standards -- Excavations; Final Rule

A. Purpose. This instruction describes a Federal Program Change to the Regions and State designees.

B. Scope. This instruction applies OSHA-wide.

C. Reference. OSHA Instruction STP 2-1.117, August 31, 1984, State Standards.

D. Federal Program Change. This instruction describes a Federal Program Change which affect State programs. Each Regional Administrator shall:

1. Ensure that this instruction is forwarded to each State designee.
2. Provide a copy of the Federal Register Notice to the State designee upon request.
3. Explain the technical content of the Federal Register Notice at 54FR 45894, October 31, 1989, Occupational Safety and Health Standards -- Excavations, to the designee upon request.
4. Ensure that each State designee acknowledges receipt of this instruction in writing, within 30 days of notification, to the Regional Administrator. The acknowledgment should include (a) the State's plan to adopt and implement the standard change, (b) the State's plan to develop an alternative change, which is as effective, or (c) the reasons why no change is necessary to maintain a program which is as effective as the Federal program.
5. Inform each State designee that the State must amend the State's standard to ensure that it remains at least as effective as the amended 29 CFR 1926.650, Subpart P., and submit a plan supplement within six months of the date of Federal publication.

E. Different Standards. Section 18(c)(2) of the Act requires that State standards be "at least as effective" as the Federal and, when applicable to products used or distributed in interstate commerce, the standards must be required by compelling local conditions and not unduly burden interstate commerce. In addition to the "at least as effective" criterion, this "product clause test" will be applied to State standards with substantively different requirements from the comparable Federal standard, as described in STP 2-1.117. A State standard expanded in scope from the Federal is considered to be a substantively different standard.

F. Interim Enforcement. Under 29 CFR 1953.23 (a) and (b), State plan States are provided up to 6 months from publication of the Federal standard in the Federal Register to promulgate an identical or "at least as effective" as standard. If a State, for whatever reason, is unable to promulgate a standard in a timely manner (6 months for a permanent standard, 30 days for an emergency temporary standard) the State shall be expected to provide assurance that it will enforce the substantive provisions of the new or revised Federal standard through such means as use of its general duty clause or equivalent, temporary adoption of an identical standard, or an alternative, specified enforcement mechanism.

G. Effective Date. The final rule is effective on March 5, 1990.

H. Explanation.

1. On October 31, 1989, OSHA amended its Construction Standards for Excavation, 29 CFR Part 1926, Subpart P.

OSHA Instruction STP 2-1.157 (cont.)

- 2. The existing standards regulate the use of support systems, sloping and benching systems and other systems of protection as means of protection against excavation cave-ins. In addition, the standards regulate the means of access to an egress from excavations, and employee exposure to vehicular traffic, falling loads, hazardous atmospheres, water accumulation, and unstable structures in and adjacent to excavations.**
- 3. The revised standard uses performance criteria where possible, rather than specification requirements; consolidates and simplifies many of the existing provisions; adds and clarifies definitions; reformats the standard to eliminate duplicate provisions and ambiguous language; provides a consistent method of soil classification; and gives employers added flexibility in providing protection for employees.**
- 4. Under 29 CFR 1953.23 (a) and (b), States are provided up to six months from publication in the Federal Register for adoption of parallel State standards and amendments.**

RECORD ID 1720

STANDARD NUMBER 1926.652(c)(1)
INFORMATION DATE 870911

ABSTRACT This interpretation letter addresses sloping requirements under 1926.652(c). That standard provides that a trench is to be sloped less than one foot vertical to each foot horizontal above the five foot level. The OSHA Directorate of Field Operations advised that the field offices should not be sent a directive discouraging citations for situations in strict compliance with the standard but, nevertheless, representing a safety hazard to workers.

(NOTE: The standard has been revised since the 1987 interpretation letter. The changes in sloping requirements are found in appendices A, B, and C of 1926.652).

INTERPRETATION 29 CFR 1926.652(c)(1)

September 11, 1987

MEMORANDUM

SUBJECT: Interpretation of Sloping Requirement under 29 CFR 1926.652(c) requested by Region VII

The Office of Construction Compliance Assistance interpretation of our sloping requirement under 29 CFR 1926.652(c) is technically correct and will not be retracted. A program directive to the field stating that citations for inadequate trench sloping in hard or compact soil under 29 CFR 1926.652(c) should not be issued unless the trench is improperly sloped, i.e., less than a one foot vertical to one-half foot horizontal slope, above the five foot level would be technically incorrect. We agree that it is possible to argue that the slope requirement of not "steeper than one foot rise to each one-half foot horizontal" shall begin at the five foot level, if we disregarded the safety implications. The angle of repose at the five foot level must be equal to what it would be at that level when sloping is begun at the bottom of the trench to ensure the safety of employees working in the trench. We concur that the necessity for a revised standard remains high and will probably become critical, however, in the interim we must interpret and enforce the standard in accordance with our past interpretations to ensure the safety of employees engaged in trench work.

RECORD ID 4367

STANDARD NUMBER 1926.652(b)(1); (Appendix B)
INFORMATION DATE 910605

ABSTRACT Because Type C soil is the lowest strength (weakest) soil, it need not be tested if an employer meets 29 CFR 1926.652 (Requirements for Protective Systems) and Appendices A, B, C and D to Subpart P as they apply to Type C soil. The employer bears the burden of proof that all of these conditions are indeed met.

INTERPRETATION 29 CFR 1926.652(b)(1); (Appendix B)

JUN 5, 1991

Dear Mr. H:

This is in response to your letter of April 16, requesting an interpretation of 29 CFR 1926.650, et seq.

Specifically, you advised that a client of your firm has asked whether it must test soil under the requirements of the above cited part of 1926, if it assumes the soil is Type C soil and provides the required employee protection for Type C soil, regardless of the type of soil present. Your client therefore feels that no purpose would be served by soil testing in that circumstance and soil testing should not be required, assuming the employer provides the employee protection required for Type C soil.

Since Type C soil is the lowest strength (weakest) soil, if the employer meets the requirements of 29 CFR. 1926.652 (Requirements for Protective Systems) and Appendices A,B,C and D to Subpart P, as applicable to Type C soil, soil testing would be superfluous and not required. I must stress the employer bears the burden of proof that this is, indeed, the case.

I trust this is responsive to your inquiry. If we can be of further assistance, please contact us.

RECORD ID 92050501

STANDARD NUMBER 1926.652(Appendix D, Table D-1.4); (c)(1); (c)(2); (Appendix C, Table C-1.3); (c)(4); (d)
INFORMATION DATE 19920505

ABSTRACT A letter responding to a request for interpretation of OSHA's excavation standards. The proposed aluminum rail is oriented vertically with a 2-foot 8-inch span. The aluminum rail is oriented horizontally as a wale, with a 6-foot to 10-foot span. The required value for the section modules of an aluminum rail can be calculated by a registered professional engineer (RPE). The shoring system proposed is different from the OSHA suggested shoring system, the size and thickness of the proposed aluminum liner must be independently designed by proper procedures.

INTERPRETATION 29 CFR 1926.652(Appendix D, Table D-1.4); (c)(1); (c)(2); (Appendix C, Table C-1.3); (c)(4); (d)

May 5, 1992

Dear Mr. B:

Your January 15 letter to Mr. A. A., Area Director, Occupational Safety and Health Administration (OSHA), requesting an interpretation of OSHA's excavation standards has been referred to the Office of Construction and Maritime Compliance Assistance for a response. We apologize for the delay in responding to your concerns.

We have coordinated the response as follows:

1. In your drawing, the proposed aluminum rail is oriented vertically with a 2-foot 8-inch span. In Table D-1.4 of the OSHA standards, the aluminum rail is oriented horizontally as a wale, with a 6-foot to 10-foot span, as shown in Figure No. 4 of Appendix D to Subpart P, 29 CFR 1926. Thus, there is no direct correlation between these two cases. The required value for the section modules of an aluminum rail certainly can be calculated by your registered professional engineer (RPE). However, to cover all different conditions of Type C soil, we recommend that a rectangular distribution of the lateral pressure with an intensity of $PA+80H=72$ psf, be used, where "H" is the depth of the trench. This pressure intensity is illustrated in Tables C-1.3 and C-2.3 of Appendix C to Subpart P, 29 CFR 1926.
2. Since the shoring system you proposed is different from the OSHA suggested shoring system, the size and thickness of the proposed aluminum liner must be independently designed by proper procedures, such as those specified for aluminum structures by the Aluminum Association, Inc. Again, we recommend the lateral pressure intensity listed in Item 1 be used in your design.
3. The subsection 29 CFR 1926.652(c)(2) Option (2) - Design Using Manufacturer's Tabulated Data is applicable in your case. A new table similar to Table D-1.4 of the OSHA standards could be developed, and would be very helpful to both the employer and the OSHA Compliance Officers.
4. In your drawing, the note on the use of plywood is not applicable. Any use of plywood as a material for primary structural members, must be per generally accepted recommendations, such as those contained in the Plywood Design Specification, by the American Plywood Association.

If we can be of any additional assistance, please contact Mr. S. J. in the Office of Construction and Engineering at (202) 523-8244 or Mr. R. F. G. or Mr. D. R. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

RECORD ID 92052101

STANDARD NUMBER 1926.652(c)(2); (c)(3)
INFORMATION DATE 19920521

ABSTRACT A letter responding to a request for interpretation on the data used for designing protective systems employees working in trenches. The Speed-Shore C-60 table does meet the intent of OSHA's regulations.

INTERPRETATION 29 CFR 1926.652(c)(2); 1926.652(c)(3)

May 21, 1992

Dear Mr. S:

This is in response to your April 7 letter requesting an interpretation of Occupational Safety and Health Administration (OSHA) standards addressing the design of protective systems for employees working in trenches.

Without discussing the engineering specifics of the data contained in your table, please be advised that the Speed-Shore C-60 table does meet the intent of OSHA's regulations, under the options set forth in both 29 CFR 1926.652(c)(2) and (c)(3). These options are discussed in the enclosed FEDERAL REGISTER of October 31, 1989 (FR 45931). While the C-60 soil classification does not exist in the OSHA soil classification system found in Appendix A to Subpart P, it appears that the manufacturer has met the requirements of 1926.652 in that the tabulated data has been approved by a registered professional engineer and provides, in writing, the information necessary to safely use the tables.

Your letter indicates that you are operating in the State of California, which oversees its own safety and health program. While your tables meet the intent of the Federal regulations, they may not be adequate to meet the California provisions which can impose additional requirements. You may wish to contact California OSHA (CalOSHA) at (415) 703-4590.

If we can be of any further assistance please contact Mr. R. G. or Mr. D. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

RECORD ID 92052102

STANDARD NUMBER 1926.652(c)(2); 1926.650(b)
INFORMATION DATE 19920521

ABSTRACT A letter requesting interpretation of the design of protective systems used in trenches. 29 CFR 1926.652(c), Option (2) allows support systems, shield systems and other protective systems to be designed using manufacturer's tabulated data without additional certification from a registered professional engineer (RPE). Tabulated Data by definition is required to be certified by a RPE additional certification is not necessary.

INTERPRETATION 29 CFR 1926.652(c)(2); 1926.650(b)

May 21, 1992

Dear Mr. P:

This is in response to your April 16 letter requesting an interpretation of an Occupational Safety and Health Administration standard addressing the design of protective systems used in trenches.

You are correct that 29 CFR 1926.652(c), Option (2) allows support systems, shield systems and other protective systems to be designed using manufacturer's tabulated data without additional certification from a registered professional engineer (RPE). Tabulated Data by definition (1926.650(b)) is required to be certified by a RPE and additional certification is not necessary.

If we can be of any further assistance please contact Mr. R. G. or Mr. D. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

RECORD ID 91110701

STANDARD NUMBER 1926.652 (g)(1)(iv), (g)(1)(i), (b)(4)(i)
INFORMATION DATE 19911107

ABSTRACT An interpretation letter addressing the design and use of trench boxes, and whether round steel pipes may be used as manhole boxes. The standard only requires that trench boxes be used at a depth not greater than that for which they are designed. It would be acceptable to use a round 8 1/2 foot outside diameter, 1/4 inch thick steel pipe for a manhole box if "there is uniform pressure", please be advised that such a system may be used if the system has been designed and approved by a registered professional engineer and used in accordance with that design.

INTERPRETATION 29 CFR 1926.652 (g)(1)(iv), (g)(1)(i), (b)(4)(i)

November 07, 1991

Dear Mr. K:

This is in response to your inquiries concerning the Occupational Safety and Health Administration's (OSHA) regulations addressing the design and use of trench boxes, and whether round steel pipes may be used as manhole boxes. We apologize for the delay in our response.

In regard to your question concerning a trench shield which needs to be tied to the ground (i.e., driven by force into the ground) in order to reach its full capacity, please be advised as follows: such a system may be used if it has been designed and approved by a registered professional engineer, and used in accordance with that design. The depth rating would be determined by the engineer.

In regard to the example you gave as part of the above question, please be advised that 29 CFR 1926.652(g)(1)(iv) states: "Employees shall not be allowed in shields when shields are being installed, removed, or moved vertically." In addition, in the example you give, the employee shall not be allowed in the shield when it is moved horizontally because the shield would not have the requisite depth capacity.

In regard to your question whether it would be acceptable to use a round 8 1/2 foot outside diameter, 1/4 inch thick steel pipe for a manhole box if "there is uniform pressure", please be advised that such a system may be used if the system has been designed and approved by a registered professional engineer and used in accordance with that design.

In regard to your question concerning stacked trench boxes, please be advised that when boxes are stacked in an excavation, they do not all have to be designed to resist the forces calculated for the deepest part of the trench. The standard only requires that the boxes be used at a depth not greater than that for which they are designed. To facilitate proper stacking in deep excavations, a design or system should be used to prevent the boxes from being misplaced in the excavation when boxes of different ratings are used. Designing the boxes so they will fit together only one correct way, or using a marking system that readily identifies the maximum depth each individual box can be placed, are examples of systems that could be used to prevent such misplacement.

If we can be of further assistance, please contact Mr. R. F. G. or Mr. D. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523- 8136.

RECORD ID 92031001

STANDARD NUMBER 1926.652 (b)(1)(i), (b)(1)(ii)
INFORMATION DATE 19920310

ABSTRACT An interpretation letter addressing the classification of soils for purposes of providing protective systems in excavations. If excavations are 20 feet or less in depth and sloped in accordance with the requirements of 1926.652 (b)(1)(i) (i.e. the slope is not greater than 34 degrees measured from the horizontal), then soil classification tests are not required.

INTERPRETATION 29 CFR 1926.652 (b)(1)(i), (b)(1)(ii)

March 10, 1992

Dear Mr. M:

This is in response to your letter, postmarked January 16, requesting an interpretation of Occupational Safety and Health Administration regulations addressing the classification of soils for purposes of providing protective systems in excavations.

In regard to when soil classification tests are required, please be advised that if excavations are 20 feet or less in depth and sloped in accordance with the requirements of 1926.652(b)(1)(i) (i.e. the slope is not greater than 34 degrees measured from the horizontal), then soil classification tests are not required. Consequently, if an employer assumes type C soil is present, and provides protection (sloping, shoring or shielding) as required for type C soil, the intent of the requirement for soil classification tests would be met and a citation should not be issued. However, soil classification tests are required if the employer elects to use any other option.

If we can be of any further assistance, please contact Mr. R. F. G. or Mr. D. R. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

RECORD ID 92041507

STANDARD NUMBER 1926.652 (c)(1), (c)(3), (Appendix D (g)(7))
INFORMATION DATE 19920415

ABSTRACT An interpretation concerning Occupational Safety and Health Administration (OSHA) excavation standards. 1926.652 (g)(7) Appendix D only applies to tables D-1.1 through D-1.4 where employees choose to design a protective system in accordance with 1926.652 (c)(1). The mention of plywood in this note is not intended as a substitute for any primary load carrying structural members. The letter also address the use of equivalent strength plywood.

INTERPRETATION 29 CFR 1926.652 (c)(1), (c)(3), (Appendix D (g)(7))

April 15, 1992

Dear Mr. D:

Your letter of February 6 to Mr. F. A. concerning his February 13, 1991 letter to Mr. R. A. has been referred to the Office of Construction and Maritime Compliance Assistance for a response. We appreciate the information you have provided and the opportunity to address your questions concerning Occupational Safety and Health Administration (OSHA) excavation standards.

In regard to the intent of note (g)(7) in 29 CFR, Part 1926, Subpart P, Appendix D, Aluminum Hydraulic Shoring for Trenches, please be advised that this note only applies to Tables D-1.1 through D-1.4 of this appendix where an employer chooses to design a protective system in accordance with 29 CFR 1926.652(c)(1), option (1). The plywood mentioned in this note is not intended as a substitute for any primary load carrying structural members, e.g. timber uprights or aluminum rails as called for in Tables D-1.1 through D-1.4. In other words, the plywood in this note can only be used to contain raveled soil and to transfer the loads imposed by this soil to the load carrying members.

In regard to the use of equivalent strength plywood, please be advised that substitutions of plywood thicknesses or types other than the two mentioned in note (g)(7) will be accepted for a system designed pursuant to 1926.652 (c)(1), Option (1), provided they have equal or better strength and stiffness than 1.125 inch softwood plywood or .75 inch 14-ply arctic white birch. The suggestion in Mr. A.'s letter of using two 3/4 inch thick sheets of plywood with the spans parallel to the face grain is just one of the alternatives which might prove feasible. (See attached structural computations by Dr. S. J. of the Office of Construction and Engineering). Any other plywood type or combination with equal or better strength and stiffness would satisfy the intent of the requirement listed in note (g)(7).

Regarding the general application of plywood as a sheeting member for shoring and support systems in trenches and excavations, please see paragraph 1926.652(c)(3), Option (3)-Designs using other tabulated data. An employer who elects to use Option (3) must meet only the requirements of that subsection and is not bound by the requirements in the appendices of 1926.652. Registered professional engineers who develop tabulated data for use by employers under Option (3) often will include plywood sheeting as a component of support systems. To aid such engineers, it may be worthwhile for your association to provide data on the equivalency of various combinations of commonly available plywood types and sizes.

If we can be of any further assistance, please contact Mr. R. F. G. of my staff in the Office of Construction Compliance Assistance at (202) 523-8136 or Mr. F. A. in the Office of Construction and Engineering at (202) 523-1438.

RECORD ID 93021901

STANDARD NUMBER 1926.652 (c)(4), (c)(3), (c)(1)
INFORMATION DATE 19930219

ABSTRACT An interpretation letter regarding whether two layers of 3/4-inch thick plywood can be used to hold back raveling when used with an aluminum hydraulic water system. For a protective system in accordance with 29 CFR 1926.652 (c)(1), option (1), plywood can be used to contain raveled soil and to transfer the loads imposed by this soil to the load carrying member.

INTERPRETATION 29 CFR 1926.652 (c)(4), (c)(3), (c)(1)

February 19, 1993

Dear Mr. K:

This is in response to your January 5 letter requesting an interpretation of an Occupational Safety and Health Administration standard addressing excavations.

With regard to whether two layers of 3/4-inch thick plywood can be used to hold back raveling when used with an aluminum hydraulic water system, please be advised that where an employer chooses to design a protective system in accordance with 29 CFR 1926.652(c)(1), option (1), plywood cannot be used as a substitute for any primary load carrying structural member such as the timber uprights or aluminum rails as called for in Tables D-1.1 through D-1.4. However, plywood can be used to contain raveled soil and to transfer the loads imposed by this soil to the load carrying members. Please note that the plywood illustrated in the sketch on page 2 of your letter appears to be a primary load carrying member instead of being a member to only prevent raveling of soil as intended in the OSHA regulations (see Note (g)(7) of Appendix D to Subpart P).

Regarding the general application of plywood as a sheeting member for shoring and support systems in trenches and excavations, please see paragraph 1926.652(c)(3) or (4), Option (3) or (4). An employer who elects to use either option must meet only the requirements of that subsection and is not bound by the requirements in the appendices of 1926.652. Registered professional engineers who develop tabulated data for use by employers under Option (3) or (4) often will include plywood sheeting as a component of support systems.

If we can be of any further assistance please contact me or Mr. D. R. C. of my staff at (202)219-8136.

SOURCE LETTER

January 5, 1993

Dear R:

A recent interpretation sent to Mr. D. at the A. P. Association dated April 15, 1992 indicates that OSHA will now accept the use of two layers of 3/4 inch thick plywood to hold back local raveling when used with vertical aluminum hydraulic shores. Can a similar arrangement be used to hold back raveling, with the panels standing upright, (8 foot length vertical) when used with an aluminum hydraulic water system? See attached diagram.

OSHA Instruction STD 3-15.1
October 30, 1978

July 20, 1976

OSHA PROGRAM DIRECTIVE #100-50

Subject: 29 CFR 1926.700(a), Shoring and Bracing of Masonry Walls.

1. Purpose

To align present enforcement actions, with current Circuit Court of Appeals' decisions.

2. Directive Affected

This directive rescinds Field Information Memorandum #75-34, April 28, 1975, Subject: 29 CFR 1926.700(a), Shoring and Bracing of Masonry Walls.

3. Background

The Fourth Circuit Court of Appeals unanimously upheld the Review Commission's interpretation of 29 CFR 1926.700(a), concluding that ANSI requirements for building techniques in A10-9-1970, such as the requirement for shoring use in paragraph 12.5, are not incorporated by reference in 29 CFR 1926.700(a) which refers to "equipment and materials", but not building techniques.

4. Action

Citations for failure to shore or brace masonry walls shall be cited solely as a Section 5(a)(1) violation. It should be noted, however, that 29 CFR 1926.700(a) does incorporate by reference all the ANSI requirements in A10-9-1970 which specify the type of shoring equipment and material to be used if shoring or bracing is attempted. Accordingly, the use of improper or inadequate shoring, as opposed to failure to provide any, is a violation of the standard, not the general duty clause, and should continue to be cited as such.

5. Effective Date

This directive is effective immediately, and will remain in effect until rescinded or revised by standards changes.

OSHA Instruction STD 3-15.2

March 21, 1979

HAZARD ALERT

Subject: Reinforcing Steel on Construction Projects Collapsing because of Inadequate Bracing or Guying--29 CFR 1926.700(b)(3)

A. Purpose. This instruction requires that reinforcing steel for walls, piers, columns and similar vertical structures shall be guyed and supported to prevent collapse.

B. Scope. This instruction applies OSHA-wide.

C. Action. CSHO's during construction inspections shall ensure the adequacy of the bracing and guying for reinforcing steel by verification of good engineering practices, contract or shop drawings or other equivalent employer proof.

D. Background. Recently three employees have been killed and eleven others injured when the erected reinforcing steel for concrete columns and walls collapsed at two worksites. It appears that sufficient bracing or guying for the larger reinforcing bars during and after placement of the steel is not being provided.

RECORD ID 1776

STANDARD NUMBER 1926.702(c)
INFORMATION DATE 860729

ABSTRACT This interpretation letter addresses the acceptability of a centrifugal safety switch for a concrete trowel machine. A centrifugal safety switch which precludes the concrete trowel machine from rotating less than a revolution of the handle after release appears to comply with the requirements of 1926.702(c).

(NOTE: 1926.700-706 were completely revised in 1988 with an effective date of 15 August. The subsection reference in the interpretation letter is inaccurate based on that revision. In all other respects, the interpretation letter supports 1990 Title 29 CFR standard.)

INTERPRETATION 29 CFR 1926.702(c)

JUL 29, 1986

This is in response to your correspondence of July 25, requesting clarification of the requirements of 29 CFR 1926.700(d)(4).

The intent of 29 CFR 1926.700(d)(4) is to prevent rotation of the trowel machine handle, after release of the operator's hands from equipment handles. A centrifugal safety switch which precludes the concrete trowel machine from rotating less than a revolution of the handle after release appears to comply with the requirements of the above mentioned standard.

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DOE Interpretations Guide to OSH Standards

July 1,1992

OSHA Instruction STD 3-15.3

FEB 24, 1991

Subject: 29 CFR 1926.705, Requirements for Lift-Slab Construction Operations -- Inspection Procedures and Guidelines

A. Purpose. This instruction establishes policies and provides clarification to ensure uniform enforcement of the Lift-Slab Construction Operations Standard.

B. Scope. This instruction applies OSHA-wide.

C. References.

1. American National Standard Institute, ANSI A10.9-1983, Safety Requirements for Concrete and Masonry Work.
2. American National Standard Institute, ANSI A58.1-1982, Minimum Design Loads for Buildings and Other Structures.
3. American Concrete Institute, ACI 318-89, Building Code Requirements for Reinforced Concrete, and ACI 318R-89, Commentary.
4. OSHA Instruction STP 2.22A, May 14, 1986, the State Plan Policies and Procedures Manual.

D. Effective Date of Requirements. All requirements of the October 18, 1990, revision of 29 CFR 1926.705, requirements for lift-slab construction operations, have an effective date of December 17, 1990.

E. Action. Regional Administrators and Area Directors shall ensure that the guidelines in this instruction are followed and that compliance officers are familiar with the contents of the standard.

F. Federal Program Change. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:

1. Ensure that a copy of this change is promptly forwarded to each State designee, using a format consistent with the Plan Change Two-way Memorandum in Appendix P, OSHA Instruction STP 2.22A, CH-2.
2. Explain the technical content of this change to the State designee as requested.
3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing to the Regional Administrator as soon as the State's intention is known, but not later than 70 calendar days after the date of issuance (10 days for mailing and 60 days for response). This acknowledgment must include a description either of the State's plan to implement the change or of the reasons why this change should not apply to that State.
4. Ensure that the State designees submit a plan supplement, in accordance with OSHA Instruction STP 2.22A, CH-3, as appropriate, following the established schedule that is agreed upon by the State and Regional Administrator to submit non-Field Operations Manual/Technical Manual Federal program changes.
 - a. If a State intends to follow OSHA's policy described in this instruction, the State must submit either a revised version of this instruction, adapted as appropriate to reference State law, regulations and administrative structure, or a cover sheet describing how references in this

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OSHA Instruction STD 3-15.3 (cont.)

- 5. No employee, except those essential to the jacking operations, is permitted in the building/structure during jacking operations, unless the building has been sufficiently reinforced to ensure integrity during erection.**
 - a. Essential employees include, but are not limited to: welders, helpers, trouble shooters and supervisor(s) performing essential functions related to the jacking/lifting and slab securing operations.**
 - b. Non-essential employees are prohibited from being anywhere within the building or structure when any floor slab is being jacked/lifted. Any slab suspended by one or more jacks is considered to be in the process of being lifted.**
 - c. Specific buildings/structures sufficiently reinforced to ensure integrity must be verified by a R.P.E. other than the one who designed and planned the lifting operations. That R.P.E. must have determined (from the implementation of the plans) that, if there is a failure of any one jacking unit, the structure as a whole will remain stable.**
 - d. In the event that non-essential employees are observed within the building or structure during lifting operations and the employer has not obtained the R.P.E.'s verification of the structural integrity discussed at H.5.c., citations for 29 CFR 1926.705(k)(1) and (k)(2) shall be issued.**
 - e. In the event that the construction employer claims to have complied with the Appendix to 29 CFR 1926.705, the compliance officer shall obtain verification of such compliance from the employer including the identity and registration number of the reviewing R.P.E. and shall record in the case file the drawing number(s), including the title(s), date(s), and current change letter or number, which presents the precautions taken to ensure the general structural integrity of the slabs during the construction phase.**
 - f. ANSI A58.1-1982, Section 1.3, states: "Buildings and structural systems shall possess general structural integrity, which is the quality of being able to sustain local damage with the structure as a whole remaining stable and not being damaged to an extent disproportionate to the original local damage."**
- 6. The compliance officer shall verify that the requirements of 29 CFR 1926.705(l) through (p) are accomplished and/or complied with.**
- I. Definition. The discussion in the Appendix of the standard requires a further clarification of terms used in the standard.**
 - 1. Bottom steel/integrity steel means the installation of additional reinforcement such as a grid of rebar steel in the poured slabs near the lower portion of the slab specifically to maintain structural integrity should a failure of a jacking unit occur.**
 - 2. Catenary action means that the slab, acting as a beam between columns, will be capable of reacting/transferring the load, created by the loss of a single supporting lift jack or lifting unit to subsequent lifting units, without catastrophic failure.**

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DOE Interpretations Guide to OSH Standards

July 1, 1992

RECORD ID 1820

STANDARD NUMBER 1926.706(a)(4)
INFORMATION DATE 890206

ABSTRACT This response provides interpretation of and comment on a series of questions and proposed answers concerning 1926.706, Requirements for Masonry Construction. Issues addressed include determination of the employer responsible for creating a Limited Access Zone, criteria for citation under various circumstances related to establishing a Limited Access Zone, requirements for a Limited Access Zone when a wall is several stories high, acceptable methods for creating and sizing a Limited Access Zone, and wall bracing guidelines for a Limited Access Zone.

INTERPRETATION 29 CFR 1926.706(a)(4)

Feb 6, 1989

MEMORANDUM

SUBJECT: Concrete and Masonry Construction Safety Standards; 1926.706 (re: your letter of 11/7/88)

This memorandum is in response to your request for interpretation and comment on a series of questions and proposed responses concerning 1926.706 "Requirements for Masonry Construction".

We have reviewed the questions raised by the (State) Masonry Construction Association, and concurred with your proposed responses. In fact, except for some format differences, your responses provide significant input to the development of a CPL. Accordingly, my staff will include your response in the draft CPL that is being prepared.

October 7, 1988

SUBJECT: Concrete and Masonry Construction Safety Standards; 1926.706

Attached is a letter of September 20, 1988 from the (State) Mason Contractors Association expressing concerns they have with portions of the new Concrete and Masonry Construction Safety Standards. This association is not affiliated with the Mason Contractor's Association of America or any other national association, and this (State) association does not receive Federal Registers or have any other way of receiving information which would allow them to comment upon such standards prior to promulgation. We are told that they learned of these standards just prior to the August 15, 1988 effective date. Our desire is to ensure these association members/contractors are properly informed of our intent, interpretation, and application of the standards which will enhance their and our accident prevention efforts.

As you will note, the Association letter contains several questions, some of which were discussed in a recent meeting we attended. For clarification, and to simplify responses to the concerns of this Association, we have listed each question (with some modification) and our suggested responses. All questions pertain to the new 1926.706 standard. Your cooperation in responding as soon as possible to these concerns will be appreciated.

Also enclosed is a letter of September 23, 1988 from the Magazine of Masonry Construction, addressed to Mr. B of my staff, requesting an article from OSHA to explain our enforcement of these new standards. Mr. B expresses confidence in writing an article, and I am inclined to permit it, but I request your opinion and suggestions of response.

In addition, I recommended the development of an OSHA CPL instruction to clarify the application and intention of this standard to assure uniformity throughout the agency.

1. Which employer is responsible for the creation/establishment of the Limited Access Zone?

Suggested Response: The establishment of the zone is the responsibility of the employer(s) whose employees are exposed. This is not to say that the exposing employers will actually mark off, barricade, etc. the zone, but they must ensure the establishment of the zone, the bracing of the wall, and/or otherwise supporting the wall to protect their exposed employees. An analogy would be the application of the zone, the bracing of the wall, and/or otherwise supporting the wall to protect their exposed employees. An analogy would be the application of other standards on a construction site, e.g., employers whose employees use electrical power must ensure the circuit is grounded even though it may be the responsibility of another contractor to do the grounding, or the employer whose employees are exposed to inadequate ventilation must ensure protection for his employees even though another contractor would have to actually install the ventilation system. Legal responsibility for compliance rest with the employer whose employees are exposed.

2. If the mason contractor's employees are allowed in the Limited Access Zone, how can that contractor be cited?

Suggested Response: See paragraph 1926.706(a)(4). The only employees permitted in the zone are those "actively engaged in constructing the wall". As with employees of any other contractor, if the mason contractor's employees are actively engaged in constructing the wall, that contractor will be subject to citation. For example, if the contracts to install conduit/piping in the wall at some point during construction of the wall, they would be considered "actively engaged in constructing the wall" and not cited, but if such installation of conduit/piping is not required at that time of construction, the exposing employer would be cited for the exposure of his employees in the access zone. NOTE FOR NATIONAL OFFICE: To ensure proper application of 1926.706(a)(4), we must explain criteria used to determine when an employee is "actively engaged in constructing the wall."

3. If only employees of other contractors are exposed to a wall and no Limited Access Zone has been established, can the mason contractors be cited for not establishing the zone?

Suggested Response: Pursuant to provisions and intent of OSHA's operational directives (CPL 2.45A, Chapter V), the mason contractors may or not be cited, depending on whether or not the exposing employer(s) met the "Legitimate Defense Test". To determine this, certain questions must be answered: (1) Who created the hazard, (2) Who had the authority or the ability to correct the hazard, (3) Was there reasonable effort made to persuade the controlling contractor to correct the hazard, and (4) Did the exposing employer instruct/train his employees on how to avoid or minimize dangers associated with the conditions. If it is determined that the exposing employers took all possible actions, short of walking off the job, to protect his employees, that employer would not be cited. Then the employer(s) in the best position to correct the hazard could be cited. If the mason contractors were using an ungrounded electrical system and made no effort to get the hazard corrected, that mason contractors would be cited for the hazard even though they did not create or have the ability or authority to correct the hazard. But if the mason contractors made a "reasonable effort" to persuade the controlling contractor to correct the condition, and all other parts of the legitimate defense test are met, the mason contractors would not be cited. The "reasonable effort" means in writing or other provable means. If employees of another contractor are exposed to the wall for legitimate reasons, even though not engaged in construction of the wall, the mason contractors could be cited if they were asked to correct the hazard and failed to do so, because they would have the authority and ability to correct the hazard.

4. What happens if mason contractors are required to build a wall on a property line?

Suggested Response: One rule to remember is that employers will generally be cited for a violation/hazard to which their employees are exposed. In your question about a wall being built on a property line, if no employees are exposed, no citations would be issued. But if employees are exposed to the possibility of a wall falling and they are not protected, their employer would be cited. The location of the wall on the property line would certainly restrict or prevent establishment of a

Limited Access Zone, so if employees are exposed, the wall may have to be braced or otherwise supported even though less than eight feet high, or access into the area prohibited. This same rule would apply if the general contractor, or activities of another contractor would make it impossible to utilize the full space required for the Limited Access Zone.

5. What happens to the Limited Access Zone when the wall of the building gets several stories high?

Suggested Responses: Your examples and explanations generally answers this question. One key word you have used is important when considering size of the Limited Access Zone, and that word is "unsupported". The size of the zone is based on the height of the "unsupported" portion of the wall. Using your example, if the wall being constructed is up to a height of 80 feet, and all but 10 feet of the height is supported, the Limited Access Zone required would be 14 feet.

6. What is acceptable to create a Limited Access Zone, i.e., does it require barricades, signs, marking on the ground/floor, etc.?

Suggested Responses: There are no specific requirements within the standard. In the designation of the zone, any marking or barrier, etc., is acceptable as long as the intent of the standard is met. An ideal and effective procedure would be a physical barrier of some type in conjunction with signs, but the employer establishing the zone has the option of identifying the zone as he wishes. That employer must consider whether or not the lines drawn, or the signs posted, or the barricades used, or any other method used, is going to effectively identify the Limited Access Zone in such a way to be recognizable by other persons approaching the area. If, in the Compliance Officer, the intent of the standard is not met, a citation will be proposed.

7. Should the initial size of the Limited Access Zone be based on the ultimate height of the wall or can it be smaller when the wall is at a lesser height and increased as the wall height increases?

Suggested Response: Once again the intent of the standard must be considered. If the intent is met, the zone size will be acceptable. If the ultimate height of the wall is to be 15 feet, but it is only five feet high when the Compliance Officer is at the site, a zone of nine feet or more would be acceptable. By the same token, if the wall height would increase from five feet to six feet while the Compliance Officer is standing there, the zone must immediately be extended to at least 10 feet or the exposing employer would be legally and technically in violation. It may be more practical to initially establish the zone in accordance with the ultimate height of the wall rather than to keep moving barricades, signs, etc., each time the wall height is increased.

8. Reference the first paragraph on page 3 of the Mason Contractor's Association letter. This alludes to possible problems for other sub-contractors inside building where masonry walls are going up quickly. The Association believes the Limited Access Zone in these areas would severely impair, if not totally restrict, construction activities of the other sub-contractors.

Suggested Response: The ultimate objective of this standard is to prevent masonry walls from collapsing onto persons exposed to them. This can be done by supporting or bracing the walls, by restricting exposure within the probable fall path of the walls, and/or by allowing space of escape beyond the probable fall path of the walls. It is recognized that no one course of action will be acceptable in all situations, but some action must be taken to prevent serious injury or death from a collapsing wall. This is a situation which demands coordination and cooperation with the general contractor and/or the sub-contractors, and demands give and take on the part of all. Please understand, this is a performance standard which leaves the method of abatement/prevention up to the employer(s).

Reference the four paragraphs under the heading "Wall Bracing" on pages 3 and 4 of the Mason Contractors Association letter.

9. Can the Limited Access Zone be removed after the walls are braced?

Suggested Response: Yes.

10. What does the word "adequate" means in regard to bracing?

Suggested Response: There is not one definition of "adequate" to fit all situations. Adequacy of bracing must be the decision of the employer(s) who should be able to support their decision. One wall eight feet high may require more bracing, or a different type bracing, than another wall of the same height. Many factors determine the necessary bracing: wind strength, wind direction, terrain, etc. The intent is to prevent the wall from collapsing, and the employer(s) must provide bracing capable of supporting the wall under prevailing conditions.

11. The standard requires a wall eight feet high to be braced. Does that mean the masons pull off the wall at eight feet high, and either move to another area, if available, or go home if another area is not available, while bracing is installed?

Suggested Response: The standard requires walls over eight feet high to be adequately braced unless the wall is adequately supported to prevent overturn or collapse. As noted in item #10 above, the employer has the responsibility of determining the adequacy of wall support or bracing. If the employer determines the wall is capable of withstanding forces applied during construction, the wall would be considered adequately supported and not require bracing. So if a wall is eight feet or more and considered "adequately supported" by the employer (who will likely be asked to substantiate this determination) no bracing would be required. Once again, look to the intent of the standard which is to prevent a wall from collapsing onto people. It is not intended to actually change industry practice concerning the construction of a wall, except to ensure safety for all persons exposed. The standard requires bracing only when the wall is not adequately supported to prevent collapse. If a "green" masonry wall is over eight feet in height, and bracing would be detrimental to its construction, then the Limited Access Zone will remain in place to ensure against personnel exposure. **NOTE FOR NATIONAL OFFICE:** These type field situations that our Compliance Officers will face needs to be addressed in a CPL to ensure uniformity in enforcement.

12. If a wall is not braced properly, which employer is cited? It is the masonry contractor? What bearing does a construction contract have on which employer might receive a citation?

Suggested Response: A construction contract would not have any bearing on which employer(s) receive a citation. The employer(s) cited will usually be the employer(s) whose employees are exposed to the violation/hazard. There are some exceptions to this general rule, and two are frequently used. One is referred to in item #3 above: The Legitimate Defense Test. The other is unpreventable employee misconduct or "isolated event" which recognizes that the violative conduct of the employee was unknown to the employer (considering employer's reasonable diligence) and was in violation of the employer's work rules which were effectively communicated and uniformly enforced. The masonry contractors would be cited if their employees were exposed to a violation/hazard and/or if they were in the best position to correct the violation/hazard (see items #2 and #3 above).

RECORD ID 1450

STANDARD NUMBER 1926.750(b)(1)(I)
INFORMATION DATE 770922

ABSTRACT This interpretation letter addresses flooring requirements for skeleton steel construction in tiered buildings. For frame designs other than the tiered (relates to the floor) design where temporary floors cannot be installed and where scaffolds are not used, safety nets shall be installed and maintained whenever the potential fall distance exceeds 25 feet.

(NOTE: Standard has not been amended since 1974).

INTERPRETATION 29 CFR 1926.750(b)(1)(I)

September 22, 1977

MEMORANDUM

SUBJECT: 1926.750 Flooring Requirements in Skeleton Steel Construction in Tiered Buildings

This is in response to a memorandum, from your office, August 5, 1977, subject as above.

Depending on the functional requirements of the building itself and the materials used in constructing its roof, floors and walls, one or more methods of framing may be used in a single structure.

In most types of buildings, floor and roof systems are so intimately related that the two are considered together in the development of a design. Both are important, but floors are the determining factor in defining "tiered". Structural designs for mezzanines, service levels and other partial floor levels are also "tiered" when one forms a level above the other. Thus, the word "tier", as used in 29 CFR Part 1926, Subpart R, relates to floor design.

For other than "tiered" design, Part designs not adaptable to temporary floors, to install and maintain safety nets whenever the potential fall distance exceeds two stories or 25 feet.

Since one or more methods of framing may be used in a single structure, the safety net and/or flooring requirements may apply in the one structure for the respective need.

RECORD ID 2068

STANDARD NUMBER 1926.750(b)(1);1926.500(d)(1)
INFORMATION DATE 840522

ABSTRACT This interpretation letter clarifies requirements for wire rope around temporary-planked or temporary metal-decked floors. Safety railing of 1/2 " wire rope, 42" high, shall be installed on the leading edge of a deck if spreading stops for a significant period of time; synthetic or fiber ropes are not acceptable.

(NOTE: This standard was last amended in 1974.)

INTERPRETATION 29 CFR 1926.750(b)(1);1926.500(d)(1)

May 22, 1984

MEMORANDUM

SUBJECT: Clarification of 29 CFR 1926.750(b)(1)(iii)

The subject regulation requires that a safety railing of 1/2-inch wire rope or equal shall be installed, approximately 42 inches high, around the periphery of all temporary-planked or temporary metal-decked floors. The safety railing shall be installed as the temporary planked or temporary metal-decked floor progresses for the protection of the erection employees. While the standard does not require the protection of the leading edge as the deck is actually spread, if spreading of the deck stops for any significant period of time the decked portion of the floor must be protected. Employees not engaged in erection work shall be protected with a standard railing complying with 29 CFR 1926.500(d)(1). The typical use of synthetic or fiber ropes as a safety railing does not provide equal protection for the following reasons:

- (1) Wire rope has greater strength for the same diameter and weight;
- (2) Wire rope's strength is constant when wet or dry;
- (3) Wire rope has constant length under varying weather conditions; and
- (4) Wire rope has greater durability and provides more protection than synthetic or fiber ropes for welding, burning, riveting or open flame work.

RECORD ID 1789

STANDARD NUMBER 1926.751(c)(2)
INFORMATION DATE 860905

ABSTRACT This interpretation letter clarifies OSHA's regulations formerly codified at 1518.751(c)(i), now 29 CFR 1926.751(c)(2). 1926.751(c)(2) required that, where long span joists or trusses 40 feet or longer are used, a center row of bolted bridging shall be installed to provide lateral stability during construction prior to slacking of hoisting line. The word longspan as used in 1926.751(c)(2) refers to any joist or truss 40 feet or more in length.

(NOTE: Standard has not been amended since issue.)

INTERPRETATION 29 CFR 1926.751(c)(2)

SEP 5, 1986

This is in response to your letter of August 14, requesting a clarification of OSHA's regulations formerly codified at 1518.751(c)(i), now 29 CFR 1926.751(c)(2).

29 CFR 1926.751(c)(2) required that, where longspan joists or trusses, 40 feet or longer, are used, a center row of bolted bridging shall be installed to provide lateral stability during construction prior to slacking of hoisting line. The word, "longspan" is a recognized product-type name for a steel joist; however, the word longspan as used in 29 CFR 1926.751(c)(2) refers to any joist or truss 40 feet or more in length.

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DOE Interpretations Guide to OSH Standards

July 1,1992

OSHA Instruction STD 3-17.1

October 30, 1978

OSHA PROGRAM DIRECTIVE #100-55

Subject: 29 CFR 1926.800(m)(5)(ii) Tunnels and Shafts, Fire Prevention and Control

References: 29 CFR 1926.155(j) 29 CFR 1926.350(j) ANSI Z49.1-1967

1. Purpose

The purpose of this directive is to establish guidelines for compliance personnel to use for the enforcement of 29 CFR 1926.800(m)(5)(ii) in the context of the standards described in the following paragraphs which permit gas welding and cutting underground under carefully circumscribed conditions.

2. Documentation Affected.

None

3. Background

- a. From the following standards, the conclusion is that liquefied petroleum gases are prohibited underground in tunnels and shafts, whereas, other fuel gases containing less than a predominant amount of LP Gases are allowed underground in tunnels and shafts. This conclusion is based on OSHA's definition of LP Gas.

- (1) 29 CFR 1926.800(m)(5)(ii) Tunnels and Shafts, Fire Prevention and Control, General, states:

Gasoline or liquefied petroleum gases shall not be taken, stored, or used underground.

- (2) 29 CFR 1926.155(j) states:

"Liquefied petroleum gases," "LPG" and "LP Gas" mean and include any material which is composed predominantly of any material which is composed predominantly of any of the following hydrocarbons, or mixtures of them, such as propane, propylene, butane (normal butane or iso-butane), and butylenes.

- b. The following standard does not prohibit the use of LP Gas underground: 29 CFR 1926.350(j) Gas Welding and Cutting, Additional Rules, adopts applicable technical portions of American National Standards Institute (ANSI), Z49.1-1967, Safety in Welding and Cutting. (See ANSI Z49.1-1967, Section 9. Industrial Applications, Part 1-Construction Industry, G. Tunnels, Shafts and Caissons.)
- c. Opinions from the scientific sector of the academic community and independent testing laboratories agree that there are essentially no differences in the safety of a widely used MPS gas and propane gas or propylene gas. Nevertheless, strict enforcement of 1926.800(m)(5)(ii) would lead to the anomalous result that LP Gas cannot be used underground while its equivalents, which are at least as hazardous, may be used underground. In addition, were OSHA to apply strict requirements of 1926.800(m)(5)(ii) to all gases which are substitutes for LP Gas, it would substantially prevent gas welding and cutting within tunnels, thereby interfering with all underground work.

4. Action

- a. Where oxygen and fuel gases are used underground in tunnels and shafts for welding, cutting and heat-treating operations, all applicable ventilation standards shall be enforced to prevent the accumulation of flammable or hazardous gases. These ventilation standards are found in 29 CFR 1926.800(c), Air Quality and Ventilation, and ANSI Z49-1-1967, Safety in Welding and Cutting, as adopted by 29 CFR 1926.350(j).

- b. Some of the applicable ventilation standards which shall be enforced are as follows:

29 CFR 1926.800:

(i) Air Quality and Ventilation

- (1) Air quality and quantity.

(ii)(b) Tests for oxygen content shall be made before tests for air contaminants.

(iii)(a) The atmosphere in all the underground work areas shall be tested quantitatively for carbon monoxide, nitrogen dioxide, hydrogen sulfide, and other toxic gases, dusts, vapors, mists and fumes as often as necessary to ensure that the permissible exposure limits prescribed in 1926.55 are not exceeded..

(k) Ventilation.

- (1) Fresh air supply.

(i) Fresh air shall be supplied to all underground work areas in sufficient quantities to prevent dangerous or harmful accumulation of dusts, fumes, mists, vapors or gases.

(ii) Mechanical ventilation shall be provided in all underground work areas except when the employer can demonstrate that natural ventilation provides the necessary air quality through sufficient air volume and air flow.

- (2) A minimum of 200 cubic feet (5.7 m³) of fresh air per minute shall be supplied for each employee underground.

- (3) The linear velocity of air flow in the tunnel bore, in shafts, and in all other underground work areas shall be at least 30 feet (9.15 m) per minute where blasting or rock drilling is conducted, or where other conditions likely to produce dust, fumes, mists, vapors, or gases in harmful or explosive quantities are present.

- (4) The direction of the mechanical air flow shall be reversible.

- (5) Following blasting, ventilation systems shall exhaust smoke and fumes to the outside atmosphere before work is resumed in affected areas.

- (6) Ventilation doors shall be designed and installed so that they remain closed when in use, regardless of the direction of the air flow.

- (7) When ventilation has been reduced to the extent that hazardous levels of methane or flammable gas may have accumulated, a competent person shall test all affected areas after ventilation has been restored and shall determine whether the atmosphere is within flammable limits before any power, other than for acceptable equipment, is restored or work is resumed.

OSHA Instruction STD 3-17.1 (cont.)

- (8) Whenever the ventilation system has been shut down with all employees out of the underground area, only competent persons authorized to test for air contaminants shall be allowed underground until the ventilation has been restored and all affected areas have been tested for air contaminants and declared safe.

ANSI Z49.1-1967, sections:

8.2 VENTILATION FOR GENERAL WELDING AND CUTTING

- 8.2.1** Mechanical ventilation shall be provided when welding or cutting is done on metals not covered in Section 5 to Section 14 inclusive: (For specific materials, see the ventilation requirements of Section 5 to Section 14 inclusive.)

- (a) In a space of less than 10,000 cu. ft. per welder.
- (b) in a room having a ceiling height of less than 16 ft.
- (c) in confined spaces or where the welding space contains partitions, balconies or other structural barriers to the extent that they significantly obstruct cross ventilation.

- 8.2.2.** Such ventilation shall be at the minimum rate of 2000 cu. ft. per min. per welder, except where local exhaust hoods and booths as per 8.3 or air-line respirators approved by the U.S. Bureau of Mines for such purposes are provided. Natural ventilation is considered sufficient for welding or cutting operations where the restrictions in Sections 2.1 above are not present.

8.3 LOCAL EXHAUST HOODS AND BOOTHS

- 8.3.1** Mechanical local exhaust ventilation may be by means of either of the following:

- (a) freely movable hoods intended to be placed by the welder as near as practicable to the work being welded and provided with a rate of air flow sufficient to maintain a velocity in the direction of the hood of 100 linear feet per minute in the zone of welding when the hood is at its most remote distance from the point of welding. The rates of ventilation required* to accomplish this control velocity using a 3-inch wide flanged suction opening are shown in the following table:

Welding Zone	Minimum Air Flow (cu. ft./min.)	Duct Diameter (in.)**
4 to 6 in. from arc or torch	150	3
6 to 8 in. from arc or torch	275	3 1/2
8 to 10 in. from arc or torch	425	4 1/2
10 to 12 in. from arch or torch	600	5 1/2

* When brazing with cadmium bearing materials or when cutting on such materials increased rates of ventilation may be required.

** Nearest 1/2 in. duct diameter based on 4000 ft. per minute velocity in pipe.

OSHA Instruction STD 3-17.1 (cont.)

NOTES: (1) All exhaust from operation should be discharged to the outdoors.
(2) Minimum air flow should be increased by 20% for hoods not provided with flanges.

- (b) a fixed enclosure with a top and not less than two sides which surround the welding or cutting operations and with a rate of air flow sufficient to maintain a velocity away from the welder of not less than 100 linear feet per minute.

8.4 VENTILATION IN CONFINED SPACES

8.4.1 All welding and cutting operations carried on in confined spaces shall be adequately ventilated to prevent the accumulation of toxic materials or possible oxygen deficiency. This applies not only to the welder but also to helpers and other personnel in the immediate vicinity. All air replacing that withdrawn shall be clean and respirable.

8.4.2 In such circumstances where it is impossible to provide such ventilation, air-line respirators or hose masks approved by the U.S. Bureau of Mines for this purpose shall be used.

8.4.3 In areas immediately hazardous to life, hose masks, hose masks with blowers or self-contained breathing equipment shall be used. The breathing equipment shall be approved by the U.S. Bureau of Mines.

8.4.4 Where welding operations are carried on in confined spaces and where welders and helpers are provided with hose masks, hose masks with blowers or self-contained breathing equipment approved by the U.S. Bureau of Mines, a worker shall be stationed on the outside of such confined spaces to insure the safety of those working within.

8.5 FLUORINE COMPOUNDS

8.5.1 In confined spaces; welding or cutting involving fluxes, coverings or other materials which contain fluorine compounds shall be done in accordance with 8.4.

8.5.2 The need for local exhaust ventilation or air line respirators for welding or cutting in other than confined spaces will depend upon the individual circumstances. However, experience has shown such protection to be desirable for fixed-location production welding and for all production welding on stainless steels. Where air samples taken at the welding location indicate that the fluorides liberated are below the maximum allowable concentration, such protection is not necessary.

8.6 ZINC

8.6.1 In confined spaces, welding or cutting involving zinc-bearing base or filler metals or metals coated with zinc-bearing materials shall be done in accordance with 8.4.

8.6.2 Indoors, welding or cutting involving zinc-bearing base or filler metals coated with zinc-bearing materials shall be done in accordance with 8.3.

OSHA Instruction STD 3-17.1 (cont.)

8.7 LEAD

- 8.7.1** In confined spaces, welding involving lead base metals (erroneously called lead burning) shall be done in accordance with 8.4.
- 8.7.2** Indoors, welding involving lead base metals shall be done in accordance with 8.3.
- 8.7.3** In confined spaces or indoors, welding or cutting involving metals containing lead, other than as an impurity, or involving metals coated with lead-bearing materials, including paint, shall be done using local exhaust ventilation or air-line respirators. Outdoors such operations shall be done using respiratory protective equipment approved by the U.S. Bureau of Mines for such purposes. In all cases, workers in the immediate vicinity of the cutting operation shall be protected as necessary by local exhaust ventilation or air-line respirators.

8.8 BERYLLIUM

- 8.8.1** Welding or cutting indoors, outdoors or in confined spaces involving beryllium-containing base or filler metals shall be done using local exhaust ventilation and air-line respirators unless atmospheric tests under the most adverse conditions have established that the workers' exposure is within the acceptable concentrations defined by the American Conference of Governmental Industrial Hygienists. In all cases, workers in the immediate vicinity of the welding or cutting operations shall be protected as necessary by local exhaust ventilation or air-line respirators.

8.9 CADMIUM

- 8.9.1** Welding or cutting indoors or in confined spaces involving cadmium-bearing or cadmium-coated base metals shall be done using local exhaust ventilation or air-line respirators unless atmospheric tests under the most adverse conditions have established that the workers' exposure is within the acceptable concentrations defined by the United States of America Standards Institute or the American Conference of Governmental Industrial Hygienists. Outdoors such operations shall be done using respiratory protective equipment such as fume respirators approved by the U.S. Bureau of Mines for such purposes.
- 8.9.2** Welding (brazing) involving cadmium-bearing filler metals shall be done using ventilation as prescribed in 8.3, or 8.4 if the work is to be done in a confined space.

8.10 MERCURY

- 8.10.1** Welding or cutting indoors or in a confined space involving metals coated with mercury-bearing materials including paint, shall be done using local exhaust ventilation or air-line respirators unless atmospheric tests under the most adverse conditions have established that the workers' exposure is within the acceptable concentration defined by the United States of America Standards Institute or the American Conference of Governmental Industrial Hygienist. Outdoors such operations shall be done OSHA Instruction STD 3-17.1 using respiratory protective equipment approved by the U.S. Bureau of Mines for such purposes.

OSHA Instruction STD 3-17.1 (cont.)

8.11 OTHER MATERIALS OF TOXIC SIGNIFICANCE

- 8.11.1** Paragraphs 8.5 through 8.10 outline precautions to be followed when using specific fluxes, coverings or base metals. Other constituents of fluxes, coverings or materials may be of toxic significance such as antimony, arsenic, bismuth, chromium, cobalt, copper, nickel, manganese, magnesium, molybdenum, thorium, and vanadium or their compounds.
- 8.11.2** When welding or cutting involves any fluxes, coverings or materials containing such materials, ventilation should be provided as necessary to reduce the concentration below the maximum allowable limits.

8.12 BRAZING ATMOSPHERES

- 8.12.1** A furnace or retort to be used as a container for a flammable brazing atmosphere (such as AWS Brazing Atmospheres number 2 through 7) shall be purged to remove oxygen and air, by one of the following methods:

- (a) Below 1400°F purging shall reduce the oxygen below the explosive level by one of the following methods: 1) Evacuate to a pressure below 5 mm mercury and backfill to working pressure with the flammable atmosphere. 2) Purge with a neutral or inert atmosphere for 4 to 6 volumes and subsequently with 4 to 6 volumes of the flammable atmosphere.

NOTE: This is usually done at a temperature of not over 200°F.

NOTE: Argon being heavier than air on hydrogen or hydrogen containing atmospheres should be piped into the container at the bottom and the exhaust placed at the top. Similarly, hydrogen and hydrogen containing atmospheres, being lighter than argon, should be piped into the container at the top with the argon exhaust at the bottom.

- (b) Above 1400°F, heated furnaces or retorts may be purged with flammable gas atmosphere with the atmosphere entering the 1400°F chamber area. Under these conditions, the air will be progressively consumed, thus eliminating any explosive condition.

NOTE: In all cases adequate area ventilation shall be provided to exhaust and discharge to the out-of-doors all explosive or toxic gases which may emanate from such furnace purging and brazing operations. Where the flammable atmosphere is completely burned in or at the furnace during the heating cycle, the exhausting requirement may diminish.

- (c) Recognizing advancements in furnaces and atmospheres, deviations from the requirements in (a) and (b) above shall be permissible if it is demonstrated that such techniques are safe operations.

8.13 CLEANING COMPOUNDS

- 8.13.1** In the used materials, because of their possible toxicity of flammability, appropriate precautions such as manufacturers instructions shall be followed.

OSHA Instruction STD 3-17.1 (cont.)

8.13.2 Degreasing or other cleaning operations involving chlorinated hydrocarbons shall be so located that no vapors from these operations will reach or be drawn into the atmosphere surrounding any welding operation. In addition, trichloroethylene and perchloroethylene should be kept out of atmospheres penetrated by the ultraviolet radiation of gas-shielded welding operations.

8.14 CUTTING OF STAINLESS STEELS

8.14.1 Oxygen cutting, using either a chemical flux or iron powder or gas-shielded arc cutting of stainless steel, shall be done using mechanical ventilation adequate to remove the fumes generated.

- c.** Oxygen and fuel gases, including LP Gases, may be used underground for welding and cutting in the construction of tunnels and shafts provided that all applicable OSHA ventilation and other standards are complied with.
- d.** Where LP Gases are used underground for welding and cutting in the construction of tunnels and shafts and a violation of the ventilation standards is found, the employer shall be cited for the specific standard(s) and 29 CFR 1926.800 (e)(1)(v) and/or for a violation of Section 5(a)(1) of the Act, where appropriate. Where other gases are used for welding and cutting in the construction of tunnels and shafts and a violation of the ventilation standards is found, the employer shall be cited for the specific standard(s) and/or for a violation of Section 5(a)(1) of the Act, where appropriate.

5. Effective Date

This directive is effective upon receipt and will remain in effect until canceled or superseded.

* A characteristic, objectionable irritating odor of decomposed chlorinated solvents (such as trichloroethylene and perchloroethylene), which include highly toxic phosgene gas and other irritating decomposition products, occurs when such vapors enter into the atmosphere or an arc welding operation.

OSHA Instruction STD 3-17.2

OCT 30, 1978

OSHA PROGRAM DIRECTIVE #100-87

Subject: 29 CFR 1926.800(m)(8), Use of Approved Fire-Resistant Hydraulic Fluids Underground

1. Purpose

The purpose of this directive is to clarify the subject standard as it applies to the use of approved fire-resistant hydraulic fluids underground.

2. Documentation Affected

This directive supersedes Field Information Memorandum #75-31 dated April 24, 1975.

3. Background

29 CFR 1926.800(m)(8) requires the use of approved fire-resistant hydraulic fluids in hydraulically actuated underground machinery and equipment. The proposed change to Safety and Health Regulations for Construction is 29 CFR 1926.800(m)(8) which states:

Approved fire-resistant hydraulic fluids shall be used in powered hydraulically actuated underground machinery and equipment unless such equipment is protected by multipurpose fire extinguisher(s) at least 4A:40B:C, or by a fire suppression system, either of which shall be suitable for the type and size of hydraulic equipment involved.

4. Action

Pending final approval of the proposed change in the standard, the requirement for the use of approved fire-resistant hydraulic fluids in hydraulically actuated underground machinery and equipment shall be considered de minimis, provided that such machinery and equipment is protected by multipurpose fire extinguishers at least 4A:40B:C, or by a fire suppression system, either of which shall be suitable for the type and size of hydraulic equipment involved.

5. Effective Date

This directive is effective immediately and will remain in effect until canceled or superseded.

RECORD ID

4181

STANDARD NUMBER

1926.800(h)(1)(i); (u); 1910.7(a)

INFORMATION DATE

900327

ABSTRACT

This interpretation letter addresses the enforcement policy for underground construction. In response to a memorandum of February 12 regarding the enforcement policy of 1926.800 and intent of 1910.7 for underground construction, 1910.7 is applicable only to General Industry and not Construction Industry. Under 1926, Subpart K, electrical, accepted, approved, certified or listed equipment is that determined to be suitable for a specific application and use by a qualified testing laboratory. The standard specifies that, under certain circumstances, testing by MSHA is acceptable to OSHA. Although OSHA requirements in the construction industry do not require certification by a NRTL, equipment so certified is obviously acceptable to OSHA if it is approved for service in the underground construction environment. Mobile diesel-powered equipment must be approved in accordance with 30 CFR Part 36 by MSHA or demonstrated by the employer to be fully equivalent.

INTERPRETATION

29 CFR 1926.800(h)(1)(i); (u); 1910.7(a)

MAR 27, 1991

MEMORANDUM

SUBJECT: Interpretation of 29 CFR 1926.800(h)(1)-(3) and 29 CFR 1926.800(u)

Although OSHA requirements in the construction industry do not require certification by a NRTL, equipment so certified is obviously acceptable to OSHA if it is approved for service in the underground construction environment.

Therefore, in further clarification of the requirements of 29 CFR 1926.800(h)(1) through (h)(3), we offer the following discussion:

Should an underground tunneling face be emitting methane gas into the tunnel, and the ventilation system ducting is used to effectively exhaust the hazardous methane containing atmosphere within the tunnel, the tunnel volume would be considered a Class 1, Division 2 location. (A hazardous atmosphere would not exist under normal operating circumstances.) However, were the ventilation system run in reverse and the tunnel become the conduit for exhausting the methane filled atmosphere, the tunnel would be classified as Class 1, Division 1.

In either case, the area ahead of the forward end of the ventilation ducting (that area from the tunnel face to the ducting) would be classified Class 1, Division 1. Mobile diesel-powered equipment must be approved in accordance with 30 CFR Part 36 by MSHA or demonstrated by the employer to be fully equivalent. Many countries manufacture acceptable diesel-powered equipment which is used in mines and is equivalent. In situations where an employer has elected to use foreign manufactured diesel-powered equipment, the employer must provide documentation to verify equivalence to the MSHA requirements.

RECORD ID 1493

STANDARD NUMBER 1926.800(h)(2)(iii); 1910.7(b)
INFORMATION DATE 800321

ABSTRACT This interpretation letter addresses testing requirements for grouted tunnel rock bolts. Grouted studs are not subject to the testing requirements for rock bolts.

(NOTE: The standard was completely revised in 1989. The sections referenced in the interpretation letter are no longer valid. The cross referenced information of 1926.800(h)(2)(iii) is found in 1926.800(o)(3).)

INTERPRETATION 29 CFR 1926.800(h)(2)(iii); 1910.7(b)

March 21, 1980

This is in reference to our letter dated January 26, 1980, concerning your request for a permanent variance and interim order from Section 1926.800(h)(2)(iii) - Tunnels and Shafts - Testing, of the Safety and Health Regulations for Construction.

You state that you are required to use a threaded bolt that is fully encapsulated in epoxy. You further state that the testing procedures in the tunnel contract specifications state that you must use a "pull test" method to determine the strength of the bolt. You have requested a variance to use the "pull test" in lieu of using a torque wrench to determine if the bolt meets the necessary torque as required by Section 1926.800(h)(2)(iii).

The OSHA standard 29 CFR 1926.800(h)(2)(i) through (v) refers to tunnel area examination at the start of each shift and frequently thereafter. Section 1926.800(h)(2)(iii) requires that torque meters and torque wrenches shall be available at tunnels when rock bolts are used for ground support, that frequent tests shall be made to determine if bolts meet the required torque, and that the test frequently shall be determined by rock conditions and distance from vibration sources.

Rock bolts are bolts driven into a drilled hole, not grouted or cemented with resins. They perform specific functions by reaching deep into solid undisturbed rock and providing information concerning the motion of the rock formation behind the area being excavated. The frequent torquing of the rock bolts provides the necessary information concerning the rock condition, possible motion within the area to be monitored, and the actual holding capability of the individual rock bolt.

The grouted studs do not perform any of the rock bolt functions listed above. A grouted stud could fall under tension when blasting, through vibration, or any time after one of these. Grouted studs are not rock bolts. Functionally they are different from rock bolts due to their structural features.

Therefore, a variance from Section 1926.800(h)(2)(iii) for grouted studs is unnecessary. Grouted studs are not subject to the standard. However, in those locations where it is determined that a rock bolt is required, the necessary testing as required by Section 1926.800(h)(2)(iii) is mandatory.

Affected employees and their authorized employee representatives shall be notified of this clarification in the same manner they were informed of your application for a variance.

No further action will be taken on your request for a variance.

RECORD ID 4345

STANDARD NUMBER 1926.800(a)(1)
INFORMATION DATE 910129

ABSTRACT 29 CFR 1926.800, Underground Construction Standards, applies to rehabilitation of a sewer tunnel constructed between 1926 and 1932. During this type of underground work, an employer would create conditions and hazards that are addressed and controlled by these standards.

INTERPRETATION 29 CFR 1926.800(a)(1)

JAN 29, 1991 :

MEMORANDUM

SUBJECT: Applicability of 1926.800

This is in response to your memo on the above subject, concerning working on rehabilitation of a sewer tunnel that had been constructed in the years between 1926 to 1932.

During this type of underground work an employer would create conditions and hazards associated with underground construction that would be addressed and controlled by the applicable 1926.800 Underground Construction Standards. Therefore, the 1926.800 standards would apply.

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DOE Interpretations Guide to OSH Standards

July 1,1992

OSHA Instruction STP 2-1.155

AUG 28, 1989
Office of State Programs

SUBJECT: Underground Construction, Final Rule

- A. **PURPOSE.** This instruction describes a Federal Program Change to the Regions and State designees.
- B. **SCOPE.** This instruction applies OSHA-wide.
- C. **REFERENCE.** OSHA Instruction STP 2-1.117, August 31, 1984, State Standard.
- D. **FEDERAL PROGRAM CHANGE.** This instruction describes a Federal Program Change which affects State programs, Each Regional Administrator shall:
 - 1. Ensure that this instruction is forwarded to each State designee.
 - 2. Provide a copy of the Federal Register notice to the State designed upon request.
 - 3. Explain the technical content of the Federal Register notice at 54 FR 23824, June 2, 1989, Underground Construction Standard, to the designee upon request.
 - 4. Ensure that each State designee acknowledges receipt of this instruction in writing, within 30 days of notification, to the Regional Administrator. The acknowledgment should include (a) the State's plan to adopt and implement the standard change, (b) the State's plan to develop an alternative change, which is as effective, or (c) the reasons why no change is necessary to maintain a program which is as effective.
 - 5. Inform each State designee that the State must amend the State's standard to ensure that it remains at least as effective as the amended 29 CFR 1926.800 and submit a plan supplement within 6 months of the date of Federal publication.
- D. **DIFFERENT STANDARDS.** Section 18 (c)(2) of the Act requires that State standards be "at least as effective" as the Federal and, when applicable to products used or distributed in interstate commerce, be required by compelling local conditions and not unduly burden interstate commerce. In addition to the "at least as effective" criterion, this "product clause test" will be applied to State standards with substantively different requirements from the comparable Federal standard, as described in STP 2-1.117. A State standard expanded in scope from the Federal is considered to be a substantively different standard.
- E. **INTERIM ENFORCEMENT.** Under 29 CFR 1953.23(a) and (b), State plan States are provided up to 6 months from publication of the Federal standard in the Federal Register to promulgate an identical or "at least as effective" as standard. If a State, for whatever reason, is unable to promulgate a standard in a timely manner (6 months for a permanent standard, 30 days for an emergency temporary standard) the State shall be expected to provide assurance that it will enforce the substantive provisions of the new or revised Federal standard through such means as use of its general duty clause or equivalent, temporary adoption of an identical standard, or an alternative, specified enforcement mechanism.
- F. **EFFECTIVE DATE.** The final rule is effective on August 1, 1989.

G. EXPLANATION.

1. On June 2, 1989, OSHA issued a final rule on its standard for Underground Construction (54 FR 23850). OSHA revised its safety and health regulations for Underground Construction (formerly titled "Tunnels and Shafts") located in 29 CFR 1926.800. The revised standard clarifies the existing standard, covers hazards not effectively addressed previously, and reflects the current technology and methods used in underground construction.
2. The revised standard is expected to eliminate such major underground hazards as accumulation of toxic or explosive gases, unsafe means of access and egress, conditions susceptible to tunnel collapse and unsafe hoisting conditions. The standard applies to construction of underground tunnels, shafts, chambers and passages. (TEXT MISSING) in addition, the standard applies to "cut-and-cover" excavations which are both physically connected to ongoing underground construction operations and covered so as to create conditions characteristic of underground construction.
3. Under 29 CFR 1953.23(a) and (b), States are provided up to 6 months from publication in the Federal Register for adoption of parallel State standards and amendments.

RECORD ID

92050504

STANDARD NUMBER
INFORMATION DATE

1926.800(m)(5)(ii); 1926.350(a)(4); (a)(9)
19920505

ABSTRACT

A letter response to a request for an interpretation of OSHA requirements addressing the transportation of compressed gas cylinders. The present interpretation of paragraphs 1926.350(a)(4) and (9) prohibits the transporting of compressed gas cylinders in the horizontal position by powered vehicle at construction sites. Considering the unique hazards associated with underground transportation of gas cylinders, Department of Transportation regulations would allow this practice under limited conditions.

INTERPRETATION

29 CFR 1926.800(m)(5)(ii); 1926.350(a)(4); (a)(9)

May 5, 1992

Dear Mr. B:

This is in response to your January 30 letter requesting an interpretation of Occupational Safety and Health Administration (OSHA) requirements addressing the transportation of compressed gas cylinders. I apologize for the delay in responding to you.

As you know, the present interpretation of paragraphs 1926.350(a)(4) and (9) prohibits the transporting of compressed gas cylinders in the horizontal position by powered vehicle at construction sites. However, considering the unique hazards associated with underground transportation of gas cylinders, your proposed method of securing and storing the cylinders while transported underground, and that current Department of Transportation regulations allow this practice under limited conditions, OSHA would consider your described method of transporting compressed gas cylinders as a de minimis situation at your San Pedro Creek and San Antonio River tunnel and shaft project in San Antonio, Texas if conducted under the following conditions:

1. Oxygen cylinders are secured against movement in all directions in a rack secured to the segment car.
2. Acetylene cylinders are secured against movement in all directions in a rack secured to the segment car. The tops of all acetylene cylinders are elevated so that the cylinders are inclined at an angle of not less than 30 degrees from horizontal (to protect against loss of acetone).

If we can be of any further assistance please contact Mr. R. F. G. or Mr. D. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

SOURCE LETTERS

Dear Sir:

The Obayashi Corporation is a General Engineering Contractor engaged in heavy construction, primarily tunnel construction.

We are presently engaged in a large tunneling project for a US Government Agency and have had some difficulty with an interpretation of The Act and specifically CFR 1926.350(a)(4) and (a)(9).

We seek immediate relief by requesting an interpretation of the wording contained in (a)(9). The Standards and our comments are listed below.

29 CFR 1926.350(a)

(4) "When cylinders are transported by powered vehicles, they shall be secured in a vertical position".

29 CFR 1926.350(a)

(9) "Compressed gas cylinders shall be secured in an upright position at all times except, if necessary for short periods of time while cylinders are actually being hoisted or carried". (emphasis added)

29 CFR 1926.350(a)(4) appears to address the transporting of cylinders unique to the gas supplier industry and appears to assume that "powered vehicles" means trucks or other above ground transporting systems. Transportation in tunnels is usually by rail systems such as our present project uses.

29 CFR 1926.350(a)(9) seems to allow the "carrying" of cylinders in the horizontal position for short periods of time. However, FED OSHA has interpreted "carrying" as meaning, "carrying by a person". (emphasis added)

The "carrying" of cylinders by a person, is contrary to a safe way to handle them and it is not allowed in our operations. Cylinders are moved by hand by rolling them on the bottom of the cylinders while holding and balancing them. CFR 1926.350(a)(3).

Webster's dictionary definition of "carrying" does not limit this action to one involving only personal handling. By limiting the definition, it precludes any mechanical means of "carrying". By re-defining "carrying", the rule as written in CFR 29 1926.350(a)(9) would allow mechanical means to be used.

In tunnel construction, it is conceivable that the size of the tunnel, the height of the rail car above the invert and the ventilation line at the crown of the tunnel, would not allow the cylinders to be transported safely in a vertical position.

Additionally, the possibility of de-railment exists and the cylinders would be subject to greater moment-arm forces if they are in a vertical position.

Transporting of cylinders from the shaft or portal to supply the tunnel involves a short period of time and can be more safely accomplished by placing the cylinders in a substantial horizontal rack that is firmly fixed to the conveyance and securely anchoring them to preclude any movement. The rack should be constructed so physical protection is afforded to the vulnerable cap end of the cylinders.

The other concern is that the acetylene cylinders would present an additional hazard due to the acetone in the cylinders which could migrate to the valve end and present a fire and explosion hazard if used in that position or if insufficient time before use in the vertical position occurs. This hazard exists and is already controlled by proper training and education and by prohibiting the use of any compressed gas cylinders in a horizontal position.

Since we are seeking immediate relief, the re-defining of the word "carried" would provide it. However, a long term solution would be preferred utilizing CFR 29 1926.800.

A suggested format for covering the transportation of compressed gas cylinders in underground (tunnel) construction is as follows:

CFR 1926.800 Underground construction

(m) Fire prevention and control

(5)(i) (existing)

(ii) (existing)

(add the following)

(iii) When compressed gas cylinders are transported underground, they shall be secured in the horizontal configuration in a substantial rack that will prevent rolling and movement during transport and provide protection to the valve ends of the cylinders.

(iv) Cylinders shall be transported without regulators attached and with the valve protection caps in place.

(v) After the cylinders arrive at their location for use or storage, they shall be immediately removed from the conveyance and rack, placed in a storage rack in the vertical position and securely restrained to prevent tipping or falling over.

(vi) All other applicable provisions of CFR 1926.350 shall be adhered to.

Thank you for your attention to the matter and expecting to have a reply in the immediate future, I remain,

November 8, 1991

Dear Sir:

Obayashi Corporation is the primary contractor for the construction of the San Pedro Creek and San Antonio River Tunnel and Shaft Project in San Antonio, Texas. We are presently tunnelling a 16,080 feet tunnel, 27 feet in diameter at a depth of 150 feet.

Pursuant to 1905.10 Subpart B Variance, and other relief under Section 6(b) (6)(A) of the Act. Obayashi Corporation submits this application for Variance of, 29 CFR 1926.350(a)(4) which states, " When cylinders are transported by powered vehicles, they shall be secured in a vertical position."

Traveling from the portal (entry) of the tunnel to the heading (working area) presents several problems due to the distance required for travel. Our main means of moving materials, equipment, personnel and supplies into the tunnel and to the working face, then back to the surface is by track haulage. This consists of a railroad with underground cars and a diesel powered locomotive.

A study reported in MSHA training manual for underground mining, stated that accidents associated with track haulage of materials accounted for nearly one-fifth of all underground mining accidents. Track haulage accidents can be grouped into four categories; 1) collisions between vehicles, 2) cars colliding with people, 3) derailment, and 4) runaway vehicles. These types of accidents are typical and are peculiar to underground operations.

Obayashi Corporation contends that due to the above circumstances, horizontal transportation of gas cylinders is at least as effective, from a safety standpoint, as vertical transportation. Since provisions of 1926.350 are not discussed in the standards of Subpart S 1926.800, we request the following variances as an alternate means of complying with 29 CFR 1926.350(a)(4); and submit a drawing depicting the method by which the below will be implemented:

1. When compressed gas cylinders are transported, they will be secured in horizontal configuration on a flat car that would prevent rolling and movement during transportation.
2. After the compressed gas cylinders arrive at their location for use or storage, they would be immediately removed from the flat car, placed in a chained rack, or otherwise positively secured in an upright position to guard against tipping over.
3. Compressed gas cylinders will never be transported with the regulators attached and without the valve protection caps in place.
4. Adhere to all other provisions of 29 CFR 1926.350.
5. Give notice to all affected employees the terms of this request and their right to petition the Assistant Secretary for a hearing.

RECORD ID 92052001

STANDARD NUMBER 1926.800(m)(5)(ii)
INFORMATION DATE 19920520

ABSTRACT This is a letter requesting an interpretation of underground construction regulations in the use of liquefied petroleum gas (LPG). 1926.800(m)(5)(ii) specifically allows the use of LPG underground only for purposes of welding, cutting or other hot work. OSHA believes that the risks that may be associated with the use of fuel gases will continue to be effectively controlled by compliance with the paragraphs referred to in the rule.

INTERPRETATION 29 CFR 1926.800(m)(5)(ii)

May 20, 1992

Your January 30 memorandum to R. A. C. requesting an interpretation of underground construction regulations addressing the use of liquefied petroleum gas (LPG) has been referred to the Office of Construction and Maritime Compliance Assistance for response. I apologize for the delay in responding to you.

Paragraph 1926.800(m)(5)(ii) specifically allows the use of LPG underground only for purposes of welding, cutting or other hot work. This practice was proposed in the August 8, 1983, NPRM (48 FR 35774) and was discussed in the preamble to the final rule published on June 2, 1989 (54 FR 23824). In the final rulemaking, OSHA received comments similar to the professional tunnel engineer's comment mentioned in your memorandum and found "....the evidence insufficient to warrant changing the proposal. OSHA believes that the risks that may be associated with the use of fuel gases will continue to be effectively controlled by compliance with the paragraphs referred to in the rule; namely, 29 CFR Part 1926, Subpart J and paragraphs (j), (k), (m) and (n) of this section."

RECORD ID 92081901

STANDARD NUMBER 1926.800(t)(1)(vii); 1926.251(a)
INFORMATION DATE 19920819

ABSTRACT This Interpretation concerns the applicability of slings and hoist ropes OSHA's standard on cage, skip and load connections. 29 CFR 1926.800(t)(1)(vii) pertains to slings, hoist rope connection, and 29 CFR 1926.251 pertains to rigging equipment requirements, including those for slings, but does not address positive locking latches. This interpretation is not intended to preclude the use of Section 5(a)(1) of the Act where conditions at a construction site warrant locking safeguards for slings to protect employees working with and near hoisted loads.

INTERPRETATION 29 CFR 1926.800(t)(1)(vii); 1926.251(a)

AUG 19 1992

Dear Ms. G:

Your April 30 letter to Mr. W. K. in the Cleveland Area Office of the Occupational Safety and Health Administration (OSHA) requesting an interpretation of the OSHA standard addressing cage, skip and load connections to hoist ropes, was forwarded to OSHA's Office of Construction and Maritime Compliance Assistance in Washington, D.C. for response. I apologize for the delay in responding to your inquiry.

In regard to whether 29 CFR 1926.800(t)(1)(vii) pertains to slings, you are correct that this section addresses the hoist rope connection only. Rigging equipment requirements, including those for slings, are contained elsewhere, in 29 CFR 1926.251.

In the referenced section there is no requirement for positive locking latches on slings. There may have been specific hazardous conditions, however, at the Kansas City site which were in need of correction. Therefore, this interpretation is not intended to preclude the use of Section 5(a)(1) of the Act where conditions at a construction site warrant locking safeguards for slings to protect employees working with and near hoisted loads.

If we can be of any further assistance, please contact Mr. R. F. G. or Mr. D. R. C. of my staff at (202) 523-8136.

RECORD ID 1438

STANDARD NUMBER 1926.855(b); (g)
INFORMATION DATE 790705

ABSTRACT This clarification letter applies to 29 CFR 1926.855(b) and (f). ANSI Safety Requirements for the Demolition standard defines floor arch as the masonry filling between the floor beams and girders.

(NOTE: This standard has not been amended since issue.)

INTERPRETATION 29 CFR 1926.855(b); (g)

July 5, 1979

MEMORANDUM

SUBJECT: Clarification of 29 CFR 1926.855(b) and (f)

REFERENCE: Your Memorandum Dated May 25, 1979

The term floor arch as it is being used in the section for manual removal of floors, 29 CFR 1926.855, means the masonry filling between the floor beams and girders, irrespective of the type of floor system. The American National Standard ANSI A10.6-1969, Safety Requirements for Demolition section 3, defines the term floor arches as indicated above, and was used by the Construction Task Force as the source document for 29 CFR 1926.855(b) and (f).

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DOE Interpretations Guide to OSH Standards

July 1,1992

OSHA Instruction STD 3-19.1
October 30, 1978

Jan. 31, 1978

OSHA PROGRAM DIRECTIVE #100-95

Subject: 29 CFR 1926.902(d) Proposed Modifications to Explosives and Blasting Agents and Surface Transportation of Explosives

1. Purpose

The purpose of this directive is to provide advisory information and guidance on proposed future changes to 29 CFR 1926.902(d).

2. Documentation Affected

This directive supersedes OSHA Field Information Memorandum #76-23 dated September 30, 1976.

3. Background

Questions have arisen concerning the simultaneous transportation of blasting caps with other explosives as delineated in 29 CFR 1926.902(d). Conflicts with explosives regulations for other Federal agencies have been noted.

4. Clarification

A proposal to revise 29 CFR 1926.902(d) is being formulated that will permit, under certain conditions, the simultaneous transportation of blasting caps with other explosives on the same vehicle. This is presently permitted by the Department of Transportation in 49 CFR 177.835(g), which outlines the controlled conditions necessary to insure safety. Compliance with 49 CFR 177.835(g) provides protection equal to or greater than that provided by 29 CFR 1926.902(d).

5. Action

Pending final approval of the proposed changes in the standards, any violation of the requirements of 29 CFR 1926.902(d) which is inconsistent with the Department of Transportation 49 CFR 177.835(g) shall be considered de minimis, provided that the employer is in compliance with 49 CFR 177.835(g).

6. Effective Date

This directive effective immediately and will remain in effect until canceled or superseded by either a later directive or change in the standards.

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DOE Interpretations Guide to OSH Standards

July 1, 1992

RECORD ID 92072003

STANDARD NUMBER 1926.902(h)
INFORMATION DATE 19920720

ABSTRACT Trucks carrying any amount of explosives shall be marked with "Explosives" placards.

INTERPRETATION 29 CFR 1926.902(h)

July 20, 1992

Dear Mr. H:

This is in response to your May 18 letter requesting an interpretation of the Occupational Safety and Health Administration (OSHA) standard addressing the marking of vehicles transporting explosives. I apologize for the delay in responding to your inquiry.

OSHA understands your concerns of public interest and attention to your utility trucks marked with "Explosives" placards. However, although the hazards are reduced with small numbers of blasting caps, there are instances (e.g., accidents, fires, etc.) where it would be advantageous for a truck carrying any amount of explosives to be clearly marked.

The Department of Transportation, whose regulations require marking of vehicles carrying explosives on public roadways concurs with OSHA's policy that removal of the placards would diminish safety and cannot be allowed.

If we can be of any further assistance, please contact Mr. R. F. G. or Mr. D. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523- 8136.

RECORD ID 2092

STANDARD NUMBER 1926.905(k)
INFORMATION DATE 841030

ABSTRACT This clarification letter addresses allowable drilling distance between load holes for a blasting operation. Additional drilling is not allowed within 50 feet of loaded holes of a blasting operation. OSHA, ANSI, (State A) OSHA, and Army Corps of Engineers standards supporting this conclusion are presented.

(NOTE: This standard has not been amended since issue.)

INTERPRETATION 29 CFR 1926.905(k)

October 30, 1984

MEMORANDUM

SUBJECT: Blasting Operations

This is in response to your memorandum in which you requested further clarification concerning the distance between loaded holes and the drilling of other holes as it may relate to a letter written to Mr. D, dated August 26, 1981.

Upon further consideration of this issue, we have concluded that drilling is not allowed within 50 feet of loaded holes. Drill machines are equipment within the meaning of 1926.905(h).

1926.905(h) states:

Machines and all tools not used for loading explosives into bore holes shall be removed from the immediate location of holes before explosives are delivered. Equipment shall not be operated within 50 feet of loaded holes.

1926.905(i) states:

No activity of any nature other than that which is required for loading holes with explosives shall be permitted in a blast area.

1926.905(k) states:

Holes shall be checked prior to loading to determine depth and conditions. Where a hole has been loaded with explosives but the explosives have failed to detonate, there shall be no drilling within 50 feet of the hole.

ANSI A10.7-1970 Section 6.3.9 states:

No activity of any nature other than that which is required for loading holes with explosives shall be permitted in a blast area.

c.s. Army Corps of Engineers states: at Em385-1-1., 1981-25. G.03.:

Drilling and loading operations shall not be carried on in the same area. Drilling shall be separated from loaded holes by at least the depth of the loaded hole but in no case less than 50 feet.
(State A) 1981 - OSHA Construction Safety orders state:

- 1566(l) Loading shall not commence until all drilling is completed and drill holes are cleaned or blown out, unless this procedure is impracticable under conditions encountered. When conditions justify simultaneous loading and drilling in the same area, the two operations shall be separated as widely as practicable and in no case less than 50 feet from drilling operations.
- 1566(j) No vehicle traffic shall be permitted over loaded holes.
- 1566(k) Loaded holes shall not be left unattended.
- 1567(c) Loading operations shall be carried on with the smallest practicable number of persons present, and no one but the loading crew, inspection personnel, and authorized supervisory personnel shall be allowed within 50 feet of the loading area.
- 1565(a) Explosive-Handling and Use. (a) Persons competent and authorized to use explosives shall be in immediate charge of all blasting. No one under 21 years of age shall be employed in loading or blasting operations, unless under the direct supervision of an experienced man.
- 1565(b) There shall be no smoking, open lights, or fire of any kind within 50 feet of any area where explosives are being handled. No source of ignition, except necessary means to light fuses or fire electric detonators, shall be permitted in an area containing loaded holes.

(State B) 1978 OSHA Safety and Health Explosives standards state:

- 09.310(b)(5) Machines and tools not used for loading explosives into bore holes shall be removed from the immediate location of holes before explosives are delivered. Equipment shall not be operated within 50 feet of loaded holes.
- 09.310(b)(6) No activity of any nature other than that which is required for loading holes with explosives shall be permitted in a blast area. Drilling activity shall not be carried out within 100 feet of loading operations.

(State C) OSHA 1976 Construction Safety Standards on this subject are identical to 29 CFR 1926.905(h) and (i).

Compliance officials in 24 States with approved plans have been contacted and all presently agreed with the above clarification.

AIM

Association for Information and Image Management

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Silver Spring, Maryland 20910
301/587-8202

Centimeter

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BY APPLIED IMAGE, INC.

9 of 9

RECORD ID 1433

STANDARD NUMBER 1926.951(b)(2); 1926.959(b)(2)(i)
INFORMATION DATE 800606

ABSTRACT This interpretation letter addresses slip-on tool hooks; they cannot be used because of a danger of electrical shock. Tool hooks coming in direct contact with the lineman's body, can cause an electrical shock and should not be used.

(NOTE: This standard has not been amended since issue).

INTERPRETATION 29 CFR 1926.951(b)(2); 1926.959(b)(2)(i)

June 6, 1980

This is in response to your request which was forwarded from our (City) Area Office concerning the use of your slip on tool hook.

It is our interim opinion that your tool hook does not meet the requirements of 29 CFR 1926.951(b)(2). Since this tool hook is in direct contact with the lineman's body, there could be a danger of electrical shock. As stated in 29 CFR 1926.951(b)(2), "the cushion part of the body belt shall contain no exposed rivets on the inside." This also would mean that no metal parts at all should be exposed on the inside of the belt.

A copy of your correspondence and picture, along with a copy of this interim response, is being sent to our National Office requesting review, concurrence, correction and/or additions as applicable. Upon receipt of a reply, we will give you a final answer.

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DOE Interpretations Guide to OSH Standards

July 1, 1992

RECORD ID 92082102

STANDARD NUMBER 1926.951(b)(1)
INFORMATION DATE 19920821

ABSTRACT A letter addressing body belts being used for climbing power transmission or distribution poles. With regard to whether a climber's safety belt can be used with a pole strap to climb a pole if the belt manufacturer's instructions prohibit its use for fall arrest. A safety belt and pole strap system is an acceptable means of fall protection for employees climbing poles. OSHA considers a lineman's pole strap and safety belt to be a fall prevention or restraint system, not a fall arrest system, and, therefore, there is no conflict between the safety belt manufacturer's instructions and federal standards for fall protection while climbing poles. Although OSHA standards allow the use of body belts in both systems, they agree that belts should not be used for fall arrest.

INTERPRETATION 29 CFR 1926.951(b)(1)

AUG 21 1992

Dear Dr. A:

Your letter of July 31 to Ms. D. S., Acting Assistant Secretary of Labor, requesting an interpretation of an Occupational Safety and Health Administration (OSHA) standard addressing body belts used for climbing power transmission or distribution poles has been referred to this office for reply.

With regard to whether a climber's safety belt can be used with a pole strap to climb a pole if the belt manufacturer's instructions prohibit its use for fall arrest, please be advised that a safety belt and pole strap system is an acceptable means of fall protection for employees climbing poles. OSHA considers a lineman's pole strap and safety belt to be a fall prevention or restraint system, not a fall arrest system, and, therefore, there is no conflict between the safety belt manufacturer's instructions and federal standards for fall protection while climbing poles.

Please note that although OSHA standards allow the use of body belts in both systems, we agree with this manufacturer that belts should not be used for fall arrest.

If we can be of any further assistance, please contact Mr. R. F. G. or Mr. D. R. C. of my staff in the Office of Construction and Compliance Assistance at (202) 523-8136.

RECORD ID

1482

STANDARD NUMBER
INFORMATION DATE

1926.952(c)(2)(i); 1926.955(a)(6)(ii); 1926.960(c); (d)
781017

ABSTRACT

This interpretation letter addresses grounding and barricading requirements for lifting equipment used near energized lines. If lifting equipment is used near energized lines and cannot be bonded to an effective ground, it shall be considered energized and should be barricaded when utilized near energized equipment or lines. Compliance with 1926.952(c)(2) will also yield compliance with 1926.955(a)(6).

(NOTE: This standard has not been amended since issue).

INTERPRETATION

29 CFR 1926.952(c)(2)(i); 1926.955(a)(6)(ii); 1926.960(c); (d)

October 17, 1978

This is in reference to our letter dated September 27, 1978, concerning your request for a permanent variance and interim order from Section 1926.955(a)(6)(ii) - Overhead Lines, of the Safety and Health Regulations for Construction.

Our technical staff has carefully evaluated your application. We would like to point out that the last paragraph of page 1 in Exhibit B is not accurate. The use of barricading is not authorized by 29 CFR 1926.952(c). A barricade is defined in 1926.960(d) as a physical obstruction such as tapes, screens or cones intended to warn and limit access to a hazardous area. This definition should not be used interchangeably with the term "barrier" which is defined in 1926.960(c) as a physical obstruction which is intended to prevent contact with energized lines or equipment.

Section 1926.955(a)(6)(ii) requires that lifting equipment:

- 1) Shall be bonded to an effective ground, or
- 2) It shall be considered energized and barricaded when utilized near energized equipment or lines.

If the equipment cannot be bonded to an effective ground, it must be considered energized. In which case 1926.952(c) permits the use of isolating, insulating or grounding. Barricading by itself does not provide sufficient safety. This fact is brought out on page 7 of Exhibit B which states, "Barricading the truck will not prevent a preoccupied employee from getting material out of the truck even while the boom is elevated."

Therefore, it appears that if there is compliance with 1926.952(c) there is also compliance with 1926.955(a)(6)(ii) and a variance is unnecessary.

Affected employees and their authorized representatives shall be notified of this clarification in the same manner they were informed of your request for a variance.

No further action will be taken on your request for a variance.

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DOE Interpretations Guide to OSH Standards

July 1, 1992

RECORD ID 1224

STANDARD NUMBER 1926.955(e)
INFORMATION DATE 790817

ABSTRACT This interpretation letter addresses the live-line bare-hand technique used to work high voltage lines. 1926.955(e) requirements addresses live-line bare hand work. Most are inappropriate for other types of live-line work.

(NOTE: This standard has not been amended since issue.)

INTERPRETATION 29 CFR 1926.955(e)

August 17, 1979

MEMORANDUM

SUBJECT: Live-Line Bare-hand Technique

The live-line bare-hand technique is used to work high voltage lines (generally 115 kV and higher) while they are "live." Since insulating gloves are not available for these voltages, the technique has been developed in which the worker is bonded to the line he is working and is insulated or isolated from ground and all other objects at a different potential. Although the terminology is not defined in the standard, it is widely recognized in the electric power industry.

The requirements of section 1926.955(e) specifically address live-line bare-hand work, and most are inappropriate for other types of live-line work in which the employee is insulated from the conductor being worked. For example, section 1926.955(e)(7) and (14) require the employee to be bonded, through a conductive bucket liner, to the energized line. If he were not doing live-line bare-hand work, these requirements would not be appropriate.

However, since the present standards in 29 CFR 1926 cover construction of power transmission and distribution lines, there is a recognized need for similar requirements which would apply during maintenance. A standard covering maintenance of power transmission and distribution lines is now in the early developmental stages, and requirements on the live-line bare-hand technique will be included.

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DOE Interpretations Guide to OSH Standards

July 1,1992

RECORD ID

4426

STANDARD NUMBER

1926.1000(a)(1)

INFORMATION DATE

910419

ABSTRACT

Rollover Protective Structures (ROPS) are required on all equipment described in 29 CFR 1926.1000(a)(1) and used in the construction industry. Trenchers such as the Vermeer T-600D and T-650 must be equipped with ROPS when used during construction operations; all crawler tractors used at construction sites must be equipped with ROPS unless the circumstances are determined to provide for a "de minimis violation." At work sites where the hazard of rollover is present (e.g., in mountainous areas or along steep grades), the requirement for ROPS is unyielding. OSHA provides employers with the right to request a variance from the specific requirements of a standard. Variances are only granted when the employer has implemented alternative safeguards that provide equal or better protection to employees than that required by the standard.

INTERPRETATION

29 CFR 1926.1000(a)(1)

APR 19 1991

Dear Mr. J:

Thank you for your letter of March 25, concerning the Occupational Safety and Health Administration (OSHA) standard at 29 CFR 1926.1000(a), Rollover Protective Structures (ROPS) for material handling equipment.

In your letter you specifically request that the following questions be addressed:

1. Does 29 CFR 1926.1000(a) specifically require the installation of ROPS on trenchers such as the Vermeer T-600D?
2. Are trenchers such as the Vermeer T-600D considered to be "crawler tractors"? If so, does the regulation require installation of ROPS on all crawler tractors?
3. Why are side boom pipelaying tractors exempt?
4. Has OSHA published policy guidance on waiver of these requirements in appropriate circumstances?
5. Is the advice summarized above (in the contents of your letter) by OSHA personnel generally correct?

Rollover Protective Structures (ROPS) are required upon all equipment described by the standard at 29 CFR 1926.1000(a)(1) and which are used in the construction industry.

In response to your questions we provide the following:

1. Trenchers such as the Vermeer T-600D and T-650, which are depicted with your letter, are required to be equipped with ROPS when used during construction operations.
2. The trenchers depicted by your enclosures appear to be mounted upon crawler tractor type equipment and are certainly expected to traverse terrain in an identical manner, therefore, OSHA classifies your equipment as a crawler tractor. All crawler tractors used at construction sites are required to be equipped with ROPS, unless the circumstances are determined to provide for a "de minimis violation."
3. Side boom pipelaying tractors were exempted during the rule making which took place during 1971 and early 1972. As the result of guidance and recommendations from the Advisory Committee on

Construction Safety and Health the rule making which culminated with the publishing of the standard in the Federal Register on April 5, 1972, (copy enclosed) exempted side boom pipe laying tractors. No subsequent actions have been taken to modify this provision.

4. At work sites where the hazard of rollover is present (e.g., in mountainous areas or along steep grades) the requirement for ROPS is unyielding. However, when material handling equipment such as the Vermeer T-600D is to be used on level terrain and the potential for rollover is remote, OSHA may determine that the violation of the standard is "de minimis" because employees are not subjected to a workplace hazard. OSHA policy concerning "de minimis violations" of OSHA standards are set forth in the OSHA Field Operations Manual (FOM), Chapter IV.B.6, copy enclosed. De minimis violations do not result in citations and do not require abatement.

The Occupational Safety and Health Act provides employers a right to request a variance from the specific requirements of a standard. Such variance requests are only available to employers who require use of the equipment by their employees and should be directed to the Office of Variance Determination. Variances are only granted when the employer has implemented alternative safeguarding to provide equal or better protection for the employees as that required by the standard.

5. The advice summarized by you is primarily incorrect, however, when the specific location or manner of use constitutes a rollover hazard, the authority having jurisdiction would require that ROPS be installed.

SOURCE LETTERS

March 25, 1991

Re: Interpretation of 29 CFR 1926.1000(a), OSHA Requirements for Rollover Protective Structures (ROPS)

Dear Mr. S:

We urgently request an opinion regarding the applicability of the above-cited regulation to "trenchers" such as the T-600D trencher manufactured by (Company), (City, State) (which is pictured on the attached exhibit). We represent a number of construction contractors, including one which is now in disagreement with the Army regarding whether the cited regulation requires installation of a ROPS on such a trencher, and it is imperative that we receive an official interpretation of that rather ambiguous provision.

The provision in question states:

"(a) Coverage. (1) This section applies to the following types of material handling equipment: To all rubber-tired, self-propelled scrapers, rubber-tired front-end loaders, rubber-tired dozers, wheel-type agricultural and industrial tractors, crawler tractors, crawler-type loaders, and motor graders, with or without attachments, that are used in construction work. This requirement does not apply to side boom pipelaying tractors."

We have been advised by some OSHA personnel that the above provision does not specifically require ROPS on trenchers such as the T-600D; and that such trenchers are not considered to be "crawler tractors." Further the attached 1985 correspondence from Vermeer indicates that OSHA also advised them that the cited regulation was not intended to apply to the T-600 type trencher. However, the OSHA personnel we contacted did indicate that other safety regulations generally give the Government agencies the authority to require installation of ROPS if the operating conditions in a specific location constitute a rollover hazard.

Therefore, we specifically request responses to the following questions:

1. Does 29 CFR 1926.1000(a) specifically require the installation of ROPS on trenchers such as the Vermeer T-600D?

2. Are trenchers such as the Vermeer T-600D considered to be "crawler tractors"? If so, does the regulation require installation of ROPS on all crawler tractors?

3. Why are side boom pipelaying tractors exempt?

4. Has OSHA published policy guidance on waiver of these requirements in appropriate circumstances?

5. Is the advice summarized above by OSHA personnel generally correct?

We respectfully request expedited processing of this request for opinion, so that we might settle an on-going disagreement and provide accurate advice and guidance to other current clients.

March 22, 1985

I have received your letter dated march 18 which included Amendment #0001.

Enclosed you will find the following:

1. Pages 2, 3 and 4 are reprinted to include the cooling system protection to -650°F and operator cab with heater.

2. Item A under K-37, as found on page 22, is being sent back with the comment that our offering is not affected by a balance of payments program.

3. I am also returning the Annual Representations, Certifications and Acknowledgments form. I have previously mailed this completed form to your office on October 31, 1984.

Please be advised that the cab that is being furnished does not comply with your article numbered 3.17. The cab does not have rollover protection nor does it have a position allowing the operator unrestricted view of the ditching area from either side of the boom. It is impossible to afford unrestricted view on both sides of the machine and track-type ditching machines are not at all referred to in the Federal Register, page 22880, Article 1926.1000. This section deals with rubber-tired vehicles and industrial tractors or crawler tractors. Our interpretation is based on the following data:

1. In 20 years of building a track-type ditcher, we have had no accident experience in this class of a ditcher upsetting.

2. Normally speaking, the usage of a ditcher is on relatively level ground as opposed to job sites that crawler tractors could be found on.

3. When the ditcher is in the operative mode, the boom itself would go into the ground, this providing additional stability.

4. A ladder-type ditching machine provides a very low center of gravity and with the wide track base the Vermeer T-600D has unusual stability.

5. Our product safety manager has indicated to me that OSHA has advised that Article 1926.1000 is not intended to apply to the T-600-type trencher.

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DOE Interpretations Guide to OSH Standards

July 1, 1992

RECORD ID 92072401

STANDARD NUMBER 1926.1000(a)(1); (c)(2)(i); 1926.602(a)(6); (b)
INFORMATION DATE 19920724

ABSTRACT This Interpretation responded to a letter requesting OSHA to reconsider its interpretation of ROPS requirements addressing industrial tractors with backhoe attachments. ROPS are required on "...wheel-type agricultural and industrial tractors, crawler tractors, with or without attachments, that are used in construction work. The design objective is to minimize the likelihood of a complete overturn and to minimize the possibility of the operator being crushed as a result of a rollover or upset.

INTERPRETATION 29 CFR 1926.1000(a)(1); (c)(2)(i); 1926.602(a)(6); (b)

July 24, 1992

Dear Mr. L:

This is in response to your June 12 letter requesting the Occupational Safety and Health Administration (OSHA) reconsider its interpretation of ROPS requirements addressing industrial tractors with backhoe attachments. I apologize for the delay in responding to your inquiry.

OSHA recognizes the advantages of being able to move a tractor from the backhoe operator's station. However, when the tractor is moved from one location to another, irrespective of the speed of travel, the operator is exposed to the hazards associated with tipping and rollover of the equipment. The information enclosed in your letter does not address the hazards introduced by the movement of the equipment and therefore, OSHA cannot justify a change of the earlier interpretation that a ROPS is necessary to protect the operator of a tractor when the equipment is being moved.

In regard to your statement that paragraphs 29 CFR 1926.602(a) and (b) show that ROPS are not required on attachment type equipment, please be advised that these provisions do not negate the clearly stated requirement of paragraph 29 CFR 1926.1000 which was promulgated at a later date. That paragraph states, in relevant part, that ROPS are required on "... wheel-type agricultural and industrial tractors, crawler tractors,..., with or without attachments, that are used in construction work" (emphasis added). This requirement is clearly intended to provide the operator of a moving piece of equipment with protection against the hazards of rollover regardless of where the point of operation is located. As stated in paragraph 29 CFR 1926.1000(c)(2)(i), "The design objective shall be to minimize the likelihood of a complete overturn and thereby minimize the possibility of the operator being crushed as a result of a rollover or upset." However, please note, these provisions do not require a separate ROPS for each operator seat if it can be shown that each seat is protected by a ROPS located somewhere on the equipment.

If we can be of any further assistance, please contact Mr. R. F. G. or Mr. D. R. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

RECORD ID D9310014

STANDARD NUMBER 1926.1000 (a)
INFORMATION DATE 931021

ABSTRACT This interpretation addresses rollover protection requirements for fork lift trucks used on rough terrain.

It is the Department of Energy's (DOE's) position that management should evaluate each fork lift truck to ensure that the manufacturer's recommendation includes rough terrain use, and that only those fork lift trucks recommended for rough terrain are used in such areas. Management should also consider retrofitting fork lift trucks used in other locations with rollover protection.

INTERPRETATION 29 CFR 1926.1000 (a)

This interpretation is in response to your inquiry of October 13, 1993, concerning the requirements for rollover protection for fork lift trucks. The majority of fork lift trucks are equipped with overhead guards that provide overhead protection but these do not provide rollover protection. The restraint systems, along with the frame of the truck and supports for these overhead guards, are intended to preclude or minimize the possibility of injury or fatality should there be a turnover, rollover, or loading dock accident. The fact that fork lift trucks have a hoist frame that extends vertically above the operator's station may give the fork truck an effective roll stopper when the side of the machine parallels the ground surface. However, there is an additional need for adequate protection to prevent the operator from leaving the safety zone in the event of a rollover.

It is DOE's position that management should evaluate each fork lift truck to ensure that "rough terrain" use is approved and/or recommended by the manufacturer of the fork lift truck. Only fork lift trucks approved and/or recommended for rough terrain should be used in such areas. Management should also consider retrofitting fork lift trucks used in other locations (e.g., warehouse, loading dock) where there is a potential hazard of rollover. All modifications should meet the requirements of 29 CFR 1926.1000 and 1926.1001. The design objective should be to minimize the likelihood of a complete overturn, thereby minimizing the possibility of the operator being crushed as a result of a rollover. Appropriate restraints also should be used to help prevent the operator from leaving the safety zone.

RECORD ID 92072005

STANDARD NUMBER 1926.1051(a); 1926.1050(b)
INFORMATION DATE 19920720

ABSTRACT Subpart X-Stairways and Ladders applies to steel erectors as well as to all other trades at construction sites. A ladder or stairway in at least one location between levels so employees can change levels in an easy, safe and convenient manner. For situations of non-routine access is required (e.g., climbing vertical steel) and fall protection system are used, ladders and stairways are not required.

INTERPRETATION 29 CFR 1926.1051(a); 1926.1050(b)

July 20, 1992

Dear Mr. W:

This is in response to your company's letter of February 5 requesting an interpretation of Occupational Safety and Health Administration standards addressing the use of ladders and fall protection by steel erectors. I apologize for the delay of this response.

In regard to whether the requirement for stairways or ladders at all points of access where there is a break in elevation of 19 inches or more (29 CFR 1926.1051(a)) applies to steel erectors, please be advised that all of Subpart X-Stairways and Ladders applies to steel erectors as well as to all other trades at construction sites. However, although the definitions and provisions of Subpart X require all points of access to be provided with a ladder or stairway, the standard is not intended to require such facilities at every location where employees change elevations. The standard is intended to require a ladder or stairway between levels in at least one location between levels so that employees can change levels in an easy, safe, and convenient manner. The obvious reason is to allow access to different elevations in a way that minimizes the potential for fall injuries that can result when employees are otherwise required to climb on items (i.e. columns, cross-bracing on scaffolds) not properly designed for climbing. In situations where non-routine access is required, such as climbing vertical steel to make initial connections, and where fall protection systems are used, then the concern of fall injury is addressed and ladders and stairways are not required. However, frequent access to the same location or by more than one employee will negate the finding that the access requirements are non-routine and a ladder or stairway may be required.

If we can be of any further assistance please contact Mr. R. F. G. or D. R. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

RECORD ID 92102703

STANDARD NUMBER 1926.1052(a)(1); 1926.451(a)(13)
INFORMATION DATE 19921027

ABSTRACT This letter responds to a request for clarification of standards for Stairways and Ladders. The provisions of Subpart X of 1926. Stairways and Ladders apply to scaffold step unit towers when they are used for access to locations other than scaffold platforms. 1926.1052(a)(1) requires such stairways to "have landings of not less than 30 inches in the direction of travel and extend at least 22 inches in width at every 12 feet or less of vertical rise." These requirements appear to be met by the configuration labeled "parallel construction". When scaffold step unit towers are used for scaffold platform access, then the requirements and interpretations of 1926.451(a)(13) apply during construction.

INTERPRETATION 29 CFR 1926.1052(a)(1); 1926.451(a)(13)

OCT 27 1992

Dear Mr. M:

This is in response to your letter of July 21 in which you request a clarification of the application of Subpart X -- Stairways and Ladders, to scaffold step unit towers and whether or not a 1976 letter of interpretation from the Occupational Safety and Health Administration (OSHA) is still valid. This is also in response to your follow-up letter of October 6 in which you provided additional information about your products.

The provisions of Subpart X--Stairways and Ladders apply to scaffold step unit towers when they are used for access to locations other than scaffold platforms. As you know, 1926.1052(a)(1) requires such stairways to "have landings of not less than 30 inches in the direction of travel and extend at least 22 inches in width at every 12 feet or less of vertical rise." These requirements appear to be met by the configuration labeled "parallel construction" on page 11 of your publication titled Safety Rules and Instructions # 508R.

Of course, when scaffold step unit towers are used for scaffold platform access, then the requirements and interpretations of 1926.451(a)(13) apply during construction.

If you have any further questions, please do not hesitate to contact myself or Mr. D. R. C. of my staff at (202) 219- 8136.

RECORD ID

92072002

STANDARD NUMBER
INFORMATION DATE

1926.1053(a); (b); 1926.451(i)(8); (a)
19920720

ABSTRACT

Clarification of Subpart X in reference to scaffolds. Subpart L, the final rule for which is currently being developed, will deal more specifically with scaffolds. Portable ladders are not required during erection and disassembly operations. The use of certain endframes for access is considered equivalent to the use of a portable ladder. The use of fall protection systems for erecting and dismantling scaffolds rests with the employer to prove using them or not causes greater hazard.

INTERPRETATION

29 CFR 1926.1053(a); (b); 1926.451(i)(8); (a)

July 20, 1992

Dear Mr. N:

This is response to your letter of November 25, 1991, in which you request a clarification of remarks Mr. R. G. made as a guest speaker for the Scaffold Industry Association in Pittsburgh. I apologize for the delay in responding to your inquiries.

With respect to the application of Subpart X to scaffolds, please be advised that although the plain reading of Subpart X indicates that all the provisions of the subpart apply to all situations, locations and equipment including scaffolds, such is not intended to be the case. For a complete understanding of the scope and application of Subpart X, there must be an understanding of the context in which the Notice of Proposed Rulemaking (NPRM) for Subpart X was published in 1986. At that time, Subpart X was only one part of an integrated trilogy of subparts intended to address a variety of different situations that have common concerns. One of the other NPRMs was Subpart L - Scaffolds. That NPRM included separate and specific provisions that addressed access and egress requirements and criteria, including those related to ladders which are manufactured specifically for scaffolds. Thus the NPRMs for Subpart X and Subpart L together presented a total picture for ladder requirements. However, because of a variety of reasons related to the rulemaking process, a final rule for Subpart X was completed in November of 1990 while the final rule for L is still being developed. This difference in publication dates, unfortunately, is not reflected in the final rule for Subpart X with the result that Subpart X appears to have application in all respects to scaffolds and scaffold ladders. As seen by reviewing the NPRM for scaffolds, the Subpart X requirements do not apply to ladders which are specifically manufactured for scaffold access and egress such as those incorporated into most welded frames. However, Subpart X does apply to job-made and manufactured portable ladders which are intended for general purpose use and which are then used for scaffold access and egress. There is no requirement to use portable or job-made ladders exclusively for any scaffold system unless the system has no other means of access and egress.

With respect to the current requirement for access during erection and disassembly operations, please be advised that although employees are not required to use portable ladders while performing such operations, safe access must always be provided. However, as set forth in the proposed rules, the use of certain endframes for access is considered to be equivalent to the use of a portable ladder.

With respect to whether or not body belt/harness systems must be used by employees erecting or dismantling scaffolds, please be advised that under the current regulations, such protection is required at all times when working from a suspension type scaffold. With respect to supported scaffolds, fall protection is required for erection and disassembly crews unless there is a showing by the employer of greater hazard or infeasibility of using such protection. OSHA recognizes that there are situations where practical fall protection cannot be provided, however, the burden for showing where those situations exist rests with the employer and must be developed on a case by case basis until the factors common to those cases can be easily defined. For example, although it may be impossible to provide body harness

systems on a scaffold that is one bay long by four bays high and which is erected in an open field, such protection may be possible when that same scaffold is erected alongside a building where the system can be rigged from above. However, as the scaffold increases in length, the same body harness system may not be feasible because of its fixed anchorage and the need of employees to traverse the entire length of the scaffold. Although the NPRM for scaffolds exempts all erection and disassembly work from the fall protection requirements, public comment to the record indicates that a complete exemption may not be warranted.

If you have additional questions please contact Mr. D. C. or Mr. R. G. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523- 8136.

RECORD ID 92100901

STANDARD NUMBER 1926.1053(a)(6)(i); 1910.27(b)(1); 1926.1050(a)
INFORMATION DATE 19921009

ABSTRACT Although it is not stated in the scope paragraph of Subpart X Stairways and Ladders, OSHA does not intend that rule to supersede the 29 CFR 1910 requirements for permanent features (such as fixed ladders and stairways) of a building during and subsequent to the construction of those features in the building. 1926.1053(a)(6)(i), which requires metal ladder rungs to be skid-resistant, is not applicable to permanently installed fixed metal ladders which meet the provisions of 1910.27, and construction workers may use such ladders during the construction process.

INTERPRETATION 29 CFR 1926.1053(a)(6)(i); 1910.27(b)(1); 1926.1050(a)

OCT 09 1992

Dear Mr. M:

Your September 23 letter to Acting Assistant Secretary D. S. requesting clarification of the Occupational Safety and Health Administration (OSHA) rules for ladders, has been forwarded to this office for response.

Although not stated in the scope paragraph of Subpart X -- Stairways and Ladders, OSHA does not intend that rule to supersede the 29 CFR 1910 requirements for permanent features (such as fixed ladders and stairways) of a building during and subsequent to the construction of those features in the building. Consequently, you are correct in your interpretation that 1926.1053(a)(6)(i), which requires metal ladder rungs to be skid-resistant, is not applicable to permanently installed fixed metal ladders which meet the provisions of 1910.27, and construction workers may use such ladders during the construction process. Therefore, a rule change or stay is not necessary to address your concern although a directive on this matter may be issued in the near future.

Thank you for bringing your concern to our attention. If you have need of further assistance, please contact Mr. R. G. or Mr. D. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 219-8136.

RECORD ID 92040202

STANDARD NUMBER 1926.1053(b)(22)
INFORMATION DATE 9920402

ABSTRACT A letter requesting a variance from the ladder use requirement of 29 CFR 1926.1053 (b)(22). The requirements of 1926.1053(b)(22) allow an object or load to be carried by a person climbing or descending a ladder provided it is done safely (so as not to cause the employee to lose balance and fall). "Although OSHA believes that small items such as hammers, pliers, measuring tapes, nails, paint brushes, and similar items should be carried in pouches, holsters, or belt loops, the language in the final rule would not preclude an employee from carrying such items while climbing a ladder so long as the items don't impede the employee's ability to maintain full control while climbing or descending the ladder."

INTERPRETATION 29 CFR 1926.1053(b)(22)

April 02, 1992

Dear Mr. H:

This is in response to your January 13 letter to the Occupational Safety and Health Administration's (OSHA) Lubbock Area Office requesting a variance from the ladder use requirement of 29 CFR 1926.1053(b)(22). Your request has been forwarded to this office for response. I apologize for the delay in responding to you.

OSHA is unable to grant your request for a variance from the requirements of 1926.1053(b)(22) because this section allows an object or load to be carried by a person climbing or descending a ladder provided it is done safely (so as not to cause the employee to lose balance and fall). In regard to which objects can be carried safely, please be guided by the following discussion from the preamble of the final rule (55 FR 47682) which was published on November 14, 1990:

"Although OSHA believes that small items such as hammers, pliers, measuring tapes, nails, paint brushes, and similar items should be carried in pouches, holsters, or belt loops, the language in the final rule would not preclude an employee from carrying such items while climbing a ladder so long as the items don't impede the employee's ability to maintain full control while climbing or descending the ladder. It is OSHA's belief that the employee's focus and attention while climbing up and/or down a ladder should be on making a safe ascent or descent and not on transporting items up and down the ladder. OSHA notes that an employee who needs to take a large or heavy object to a different level by means of a ladder can pull the object up or lower it with a handline."

If we can be of any further assistance, please contact Mr. R. F. G. or Mr. D. C. of my staff in the Office of Construction and Maritime Compliance Assistance at (202) 523-8136.

SOURCE LETTER

January 13, 1992

Re: 29 CFR 1926.1053(b)(22)

Gentlemen:

We hereby request a permanent variance from the above-referenced standard. The record will show that for our company the risks from the above-referenced hazard have been non-existent.

We take great care in training our personnel in ladder safety. The risks that we would incur in utilizing other methods of material conveyance seem to expose our employees to greater risk than simply carrying something up a ladder.

The statute as written seems a little vague. The working of the statute implies that there are objects or loads which could be carried safely. In short, this subpart seems to be judging. We submit that our employees should be allowed to occasionally carry materials up ladders without threat of citation.

Please let us know your views on our Variance Application.

OSHA Instruction STD 4.1

OCTOBER 30, 1978

OSHA PROGRAM DIRECTIVE #100-47

Subject: Interpretations of:

- (a) 29 CFR 1928.51(a), Definitions "Agricultural Tractor."
- (b) 29 CFR 1928.51(b)(1), Roll-over Protective Structure, (ROPS)

1. Purpose

- a. To provide a specific clarification on the definition of "20 engine horsepower" as used in the definition of agricultural tractor.
- b. To exempt rubber-tired skid-steer equipment used in agricultural operations from the Rollover Protective Structures (ROPS) standards.

2. Directive Affected

None.

3. Background

- a. Inquiries have been received from manufacturers of agricultural equipment and agricultural employers as to the meaning of "20 engine horsepower."
- b. Part 1928 adopts Subpart W (ROPS) of Part 1926. Section 1926.1000(a)(2) reserves promulgation of specific standards for rollover protective structures for compactors and rubber-tired skid-steer equipment.

4. Action

- a. The meaning of "20 engine horsepower" as used in definitions of "agricultural tractor" is the net engine horsepower - continuous brake power rating per SAE J816b." Continuous brake power is the power recommended by the manufacturer for satisfactory operation under the manufacturer specified continuous duty conditions (SAE Standard J816b). This SAE standard was last revised July 1971, Editorial change March 1973.
- b. The ROPS requirements contained in Part 1928 do not apply to rubber-tired skid-steer equipment, pending the promulgation of specific standards to cover such equipment.

5. Effective Date

These interpretations are effective upon receipt and will remain in effect until canceled or superseded.

OSHA Instruction STD 4.2

OCTOBER 30, 1978

OSHA PROGRAM DIRECTIVE #100-102

Subject: Low Profile Tractor

1. Purpose

The purpose of this directive is to clarify citing of Roll-Over Protective Structures (ROPS) for tractors used in agricultural operations. The "low profile tractor" is presently defined as wheeled tractors only, but in reality may also be tracked tractors. 29 CFR 1928.51(b)(1) and (2) shall not be cited when the exempt uses of 29 CFR 1928.51(b)(5)(i) or (ii) "Low profile tractor" are met by the use of an "agricultural tractor" that is a track vehicle meeting the requirements of 29 CFR 1928.51(a)(2); (3); and (4).

2. Documentation Affected

None.

3. Background

29 CFR 1928.51(a) defines a "low profile tractor" as a wheeled tractor possessing the four characteristics listed in the standard. Track vehicles meeting the essential characteristics contained in 29 CFR 1928.51(a) shall also be defined as "low profile tractors."

4. Action

29 CFR 1928.51(b)(1) and (2) shall not be cited when the requirements of 29 CFR 1928.51(b)(5)(i) or (ii) "low profile tractor" are met by an "agricultural tractor" that is a track vehicle meeting the requirements of 29 CFR 1928.51(a)(2); (3); and (4).

5. Effective Date

This directive is effective upon receipt and will remain in effect until canceled or superseded.

RECORD ID 1368

STANDARD NUMBER 1928.1; 1910
INFORMATION DATE 820928

ABSTRACT This interpretation letter addresses the classification of the aquaculture industries for OSHA enforcement purposes. Aquaculture is covered by the agricultural standard, 29 CFR 1928, if it involves growing or harvesting plants or animals. Otherwise, it is covered by general industry standards, 29 CFR 1910.

INTERPRETATION 29 CFR 1928.1; 1910

September 28, 1982

This is in response to your requests for a clarification of the classification of the aquaculture industries for OSHA enforcement purposes.

The classification of aquaculture industry operations depends upon their nature. Operations that are clearly part of the controlled growing and harvesting of fish, shellfish, and plants in fresh, brackish, and marine waters are covered by the OSHA standards for agriculture, 29 CFR 1928. Any operations that are not uniquely agricultural and not part of the controlled growing and harvesting of fish, shellfish, and plants--e.g., the processing of harvested fish--would be covered by OSHA's general industry standards.

Thus, diving operations directly related to activities involving the controlled growing and harvesting of fish shellfish, and plants are considered agricultural operations. Other types of diving activities--e.g., for the purpose of inspecting and maintaining underwater piping equipment-- are covered by OSHA's general industry standards.

RECORD ID 1454

STANDARD NUMBER 1928.57(a)(1); 1928.110(a)
INFORMATION DATE 830414

ABSTRACT Section 1928.57(a)(1) states that the purpose of the standard is to provide for protection of employees from the hazards associated with moving machinery parts of farm field equipment, farmstead equipment, and cotton gins used in any agricultural operation. The interpretation letter notes that failure to comply with the scope of the standard is a violation. Also discussed are limitations of the standard as applied to farms with less than eleven (11) employees and family owned farms.

(NOTE: Standard last amended in 1976.)

INTERPRETATION 29 CFR 1928.57(a)(1); 1928.110(a)

April 14, 1983

SUBJECT: Date of manufacture, and all other hazardous components on machinery manufactured after October 25, 1976.

OSHA does not agree that the interlock type of control, which your constituent advocated, is necessarily advantageous. If an employer deliberately decided to violate an OSHA regulation by operating a piece of farm machinery without an appropriate guard, he could as easily violate any interlock system by bypassing or otherwise disabling the system. Additionally, the addition of such devices to farm equipment, especially existing equipment, might be technologically and/or economically infeasible.

Your constituent may also be interested to know that OSHA regulations do not apply on farms where only family members work, since family members are not considered to be employees, even if they are paid. Additionally, OSHA is currently under a restriction, contained in our annual Appropriations Act, which limits OSHA jurisdiction to farms employing 11 or more employees.

RECORD ID 1459

STANDARD NUMBER 1928.57(b)(1)(I); (c)(1)(I); (d)(1)
INFORMATION DATE 830628

ABSTRACT This interpretation reiterates the requirement, 1928.57(b), for guarding power take-off shafts on agricultural equipment. The power take-off shaft and universal couplings at the journals on agricultural equipment must be guarded. Cone and shaft shields may be used.

(NOTE: Standard last amended in 1976.)

INTERPRETATION 29 CFR 1928.57(b)(1)(I); (c)(1)(I); (d)(1)

June 28, 1983

This is in response to your letter of June 1, 1983, in which you request an interpretation of the Occupational Safety and Health Administration (OSHA) requirement for guarding power take-off (PTO) shafts on agricultural equipment. The OSHA requirements for safeguarding PTO shafts used on agricultural equipment are delineated by 29 CFR 1928.57, Guarding of farm field equipment, farmstead equipment, and cotton gins, copy enclosed. OSHA booklet number 2256 provides additional clarifying information.

The purpose of the standard's requirements are emphasized in the first paragraph, section 1928.57(a)(1): to provide for the protection of employees from hazardous exposures associated with moving machinery parts. PTO shafts in general are hazardous to employees, and the universal couplings at the journals are even greater hazards. Guarding of the PTO shafts and their journal ends is thus required under the OSHA regulations. The following portions of the regulations require such guarding:

1928.57(b)(1), (b)(2)(ii), for field equipment;
1928.57(c)(1), (c)(2)(ii), for farmstead equipment; and,
1928.57(d)(1)(i), (vii), for cotton ginning equipment.

Whether or not cones are part of the shield, OSHA requires safeguarding of the journals. An integral configuration of the cone and shaft shield is a logical alternative for providing the required safeguarding. Integral cone or cup-shaped projections on the ends of the shaft shield which extend over the journals are considered a portion of the PTO shaft guard. This form of guarding meets the OSHA requirements for guarding the PTO shaft and its journals as depicted in Figure 5 of OSHA booklet number 2256.

OSHA Instruction CPL 2.36

JUN 18, 1990

SUBJECT: Agriculture SAVE's Manual, 29 CFR Part 1928

- A. Purpose.** This instruction establishes and provides guidelines for using the Agriculture Standard Alleged Violation Elements (SAVE's) Manual.
- B. Scope.** This instruction applies OSHA-wide.
- C. Reference.** OSHA Instruction CPL 2.45B, June 15, 1989; the Revised Field Operations Manual (FOM) , Chapter V--Citations.
- D. Background.** Final Rules and Regulations for Field Sanitation were published in the Federal Register, Vol.52, No. 84, on May 1, 1987.
- E. Action.** Directive users shall file a copy of this transmittal sheet behind OSHA Instruction CPL 2.35 in the appropriate OSHA Directives System binder.
- F. State Plan States.** Regional Administrators shall advise State designees of the action required by this instruction and encourage their participation in the SAVE's program.
 - 1. 29 CFR 1928.110(c)(1)(i):** Potable drinking water was not provided and placed in locations readily accessible to all employees engaged in hand-labor operations in the field.
 - (a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS)**

OPTION 1

- 2. 29 CFR 1928.110(c)(1)(ii):** Potable drinking water provided was not suitably cool to meet the needs of employees engaged in hand-labor operations in the field.
 - (a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS)**

NOTE: The temperature of the water must be low enough to encourage employees to drink it to cool the core body temperature.

OPTION 2

- 3. 29 CFR 1928.110(c)(1)(ii):** The potable drinking water provided was not in sufficient amounts to meet the needs of all employees engaged in hand-labor operations in the field:
 - (a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS)**

OPTION 1

- 4. 29 CFR 1928.110(c)(1)(iii):** Single-use drinking cups or fountains were not provided for dispensing of potable water to employees engaged in hand-labor operations in the field:
 - (a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS)**

OPTION 2

- 1. 29 CFR 1928.110(c)(1)(iii):** The use of common drinking cups or dippers was not prohibited:
 - (a) (LOCATION) (IDENTIFY SPECIFIC OPERATIONS AND/OR CONDITIONS)**

OSHA Instruction CPL 2.36 (cont.)

2. 29 CFR 1928.110(c)(2)(i): One toilet facility and one handwashing facility was not provided for each twenty (20) employees or fraction thereof engaged in hand-labor operations in the field:

(a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS)

NOTE: See exemption in 1928.110(c)(2)(v).

3. 29 CFR 1928.110(c)(2)(ii): Toilet facilities for use by employees engaged in hand-labor operations in the field were not adequately ventilated, appropriately screened, constructed to ensure privacy and equipped with self-closing doors that could be closed and latched from the inside:

(a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS)

OPTION 1

4. 29 CFR 1928.110(c)(2)(iii): Toilet and handwashing facilities for use by employees engaged in hand-labor operations in the field were not accessibly located and in close proximity to each other:

(a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS) (DESCRIBE HAZARD(S) WHERE NECESSARY) (NUMBER OF EMPLOYEES EXPOSED)

OPTION 2

1. 29 CFR 1928.110(c)(2)(iii): Toilet and handwashing facilities for use by employees engaged in hand-labor operations were not located within a one-quarter mile walk of each hand laborer's place of work in the field:

(a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS)

2. 29 CFR 1928.110(c)(2)(iv): Where due to the terrain it was not feasible to locate toilet and handwashing facilities within one-quarter mile walk of each hand laborer's place of work in the field, the facilities were not located at the point of closest vehicular access:

(a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS)

OPTION 1

3. 29 CFR 1928.110(c)(3)(i): Drinking water containers used for employees engaged in hand-labor operations in the field were not constructed of materials that would maintain water quality:

(a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS) (DESCRIBE HAZARD(S) WHERE NECESSARY)

OPTION 2

4. 29 CFR 1928.110(c)(3)(i): Drinking water containers used for employees engaged in hand-labor operations in the field were not refilled daily or more often as necessary:

(a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS)

OPTION 3

1. 29 CFR 1928.110(c)(3)(i): Drinking water containers provided for employees engaged in hand-labor operations in the field were not kept covered:

OSHA Instruction CPL 2.36 (cont.)

- (a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS)

OPTION 4

2. 29 CFR 1928.110(c)(3)(i): Drinking water containers provided for employees engaged in hand-labor operations in the field were not regularly cleaned:

- (a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS)

OPTION 1

3. 29 CFR 1928.110(c)(3)(ii): Toilet facilities provided for employees engaged in hand-labor operations in the field were not operational:

- (a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS)

OPTION 2

4. 29 CFR 1928.110(c)(3)(ii): Toilet facilities provided for employees engaged in hand-labor operations in the field were not maintained in a clean and sanitary condition:

- (a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS)

OPTION 1

5. 29 CFR 1928.110(c)(3)(iii) : Handwashing facilities provided for employees engaged in hand-labor operations in the field were not refilled with potable water as necessary to ensure an adequate supply:

- (a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS)

OPTION 2

1. 29 CFR 1928.110(c)(3)(iii): Handwashing facilities provided for employees engaged in hand-labor operations in the field were not maintained in a clean and sanitary condition:

- (a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS)

2. 29 CFR 1928.110(c)(3)(iv): Disposal of wastes from toilet and handwashing facilities used by employees engaged in hand-labor operations caused unsanitary conditions:

- (a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS) (DESCRIBE HAZARD(S) WHERE NECESSARY)

OPTION 1

3. 29 CFR 1928.110(c)(4): The employer did not notify each employee engaged in hand-labor operations of the location of the sanitation facilities and water:

- (a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS) (DESCRIBE HAZARD(S) WHERE NECESSARY) (NUMBER OF EMPLOYEES NOT NOTIFIED)

OSHA Instruction CPL 2.36 (cont.)

OPTION 2

4. 29 CFR 1928.110(c)(4): The employer did not allow each employee engaged in hand-labor operations reasonable opportunities during the workday to use the sanitation facilities and water:
 - (a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS) (NUMBER OF EMPLOYEES AFFECTED)

OPTION 3

1. 29 CFR 1928.110(c)(4): The employer did not inform each employee engaged in hand-labor operations in the field of the importance of the good hygiene practices listed in 29 CFR 1928.110(c)(4)(i) through (c)(4)(v), in order to minimize exposure to the hazards in the field of heat, communicable diseases, retention of urine and agricultural residues:
 - (a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S) AND/OR CONDITIONS) (NUMBER OF EMPLOYEES NOT INFORMED)

OSHA Instruction STP 2-1.138

(No date)

Office of State Programs

Subject: Field Sanitation; Final Rule

A. Purpose. This instruction informs the Regions and State designees that the Occupational Safety and Health Administration (OSHA) has issued a final rule, which amends Title 29 of the Code of Federal Regulations, Part 1928, by adding a new final occupational safety and health standard entitled "Field Sanitation" (1928.110).

B. Scope. This instruction applies OSHA-wide.

C. Federal Program Change. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this instruction is forwarded to each State designee.
2. Provide a copy of the Federal Register notice to the State designee upon request.
3. Explain the technical content of the Federal Register notice at 52 FR 16050, May 1, 1987, "Field Sanitation; Final Rule," to the State designee upon request.
4. Ensure that each State designee acknowledges receipt of this instruction in writing, within 30 days of notification, to the Regional Administrator. The acknowledgment should include (a) the State's plan to adopt and implement the standard, (b) the State's plan to develop an alternative standard, which is as effective, or (c) the reasons why no standard is necessary to maintain a program which is as effective.
5. Inform each State designee that the State must promulgate a standard within 6 months of the date of Federal publication that is "at least as effective" as the new 29 CFR 1928.110, and submit a plan supplement to the Regional Administrator. The State may delay the effective date for those particular provisions of its standard for which the comparable Federal provisions delay effective dates; however, the delayed effective date of a State provision may be no later than the effective date of the comparable Federal provisions.
6. Inform the State designee that those States which adopted a Field Sanitation standard in response to Secretary Brock's October 1985 request will need to submit a formal plan change supplement to OSHA for approval. Any different State standards should be submitted to the Regional Administrator in accord with OSHA Instruction STP 2-1.117, "State Standards."

D. Interim Enforcement. Under 29 CFR 1953.23(a) and (b), State plan States are provided up to 6 months from publication of the Federal standard in the Federal Register to promulgate an identical or "at least as effective" as standard. If a State, for whatever reason, is unable to promulgate a standard in a timely manner (6 months for a permanent standard, 30 days for an emergency temporary standard), the State shall be expected to provide assurance that it will enforce the substantive provisions of the new or revised Federal standard through such means as use of its general duty clause or equivalent, temporary adoption of an identical standard or an alternative, specified enforcement mechanism. Until such time as a State OSHA standard is promulgated and in effect, Federal OSHA will provide interim enforcement assistance, as appropriate.

E. Different State Standards. Section 18(c) (2) of the OSH Act requires that State standards be "at least as effective" as the Federal and, when applicable to products used or distributed in interstate commerce, the standards must be required by compelling local conditions and not unduly burden interstate

OSHA Instruction STP 2-1.138 (cont.)

commerce. In addition to the "at least as effective" criterion, this "product clause test" will be applied to State standards with substantively different requirements from the comparable Federal standards, as discussed in OSHA Instruction STP 2-1.117.

F. Effect of Standards on States. For States that do not have OSHA-approved plans, OSHA intends this standard to pre-empt State occupational field sanitation standards, insofar as they regulate working conditions on farms with 11 or more employees. However, the pre-emption provisions of section 18 of the CSH Act do not apply to non-plan State field sanitation standards, insofar as they regulate farms with fewer than 11 employees, because under the current Congressional prohibition

OSHA itself has no authority to promulgate or enforce a standard applicable to such small farms. In addition, nothing in the Occupational Safety and Health Act precludes a State or local entity from issuing standards which are directed predominantly at public health considerations and enforced for that purpose.

G. Explanation.

1. The definition of "scope" in the standard differs somewhat from OSHA's current appropriation limitation which prohibits the use of Federal funds "to prescribe, issue, administer or enforce any standard, rule, regulation or order.. which is applicable to any person who is engaged in a farming operation which does not maintain a temporary labor camp and employs ten or fewer employees." The standard applies to farms where 11 or more workers are engaged in hand labor operations in the field on any given day and was so drafted to provide protection to those agricultural employees who are actually exposed to field hazards. Evidence on the record indicates that the risk of exposure to some diseases, e.g., parasitism, is directly related to the number of hand laborers in the field. Therefore, it was determined that the standard should not be applied to that group of small farms which technically could be covered under the terms of the appropriation limitation. However, States are free to expand the scope of their standards to farms of any size that maintain a temporary labor camp. (State plan States may also extend their coverage to all small farms but may not use Federal funds for that purpose.)

2. In promulgating a final Field Sanitation standard, in response to public comment, OSHA made determinations on several provisions which had previously been raised as issues for discussion. These included use of moist towelettes, providing transportation to and from facilities, and toilet ratios.

H. Background.

1. This final rule amends Title 29 of the Code of Federal Regulations, Part 1928, by adding a new final occupational safety and health standard entitled "Field Sanitation," Part 1928.110. This standard requires employers of 11 or more hand laborers in the field to provide toilets, potable water and handwashing facilities in the field without cost to those employees. The final Field Sanitation standard was published in the Federal Register on May 1, 1987. An estimated 471,600 hired farm workers will be covered by this standard. Many of these workers are migrant workers, who may contract and pass on communicable diseases as they move from area to area and State to State.

2. In September 1985, the Secretary announced a decision, based on "the clear evidence in the record to date" in OSHA's field sanitation rulemaking, that further regulation was required to deal with farm field hand laborers' health problems resulting from the inadequate provision of sanitary facilities and drinking water at their worksites.

3. Federal action was deferred for 18 months to allow the States time to provide the needed regulation in the belief that "State action responsive to this need would be preferable to, and more effective than, Federal action." (States already regulate extensively in the public health area

OSHA Instruction STP 2-1.138 (cont.)

to which much of the field sanitation problem relates; Congress has precluded OSHA from adopting or enforcing standards that are applicable to farms with 10 or fewer workers where the majority of hand laborers work.)

4. On February 6, 1987, the U.S. Court of Appeals for the District of Columbia Circuit ordered the Secretary of Labor (in Farmworkers Justice Fund v. Brock) to issue a Federal occupational safety and health field sanitation standard within 30 days of the issuance of its mandate.

5. On March 9, the Secretary announced his preliminary determination that the Department of Labor's Occupational Safety and Health Administration would issue a field sanitation standard on or about April 21. At that time, the Secretary also announced that the Department had petitioned the Court for a rehearing of the case. The Department's petition addressed issues of general administrative law. On May 7, the Court vacated its decision and dismissed OSHA's petition as being moot, since the Occupational Safety and Health Administration had promulgated a final Field Sanitation standard on May 1, 1987.

6. OSHA published its final Field Sanitation standard in the Federal Register on May 1, 1987. The decision by the Secretary of Labor to issue a final field sanitation standard was based on an assessment that an insufficient number of States had responded to his October 1985 request that States adopt field sanitation requirements.

RECORD ID

1812

**STANDARD NUMBER
INFORMATION DATE**

1928.110(b)(III); 1928.110(a)
890206

ABSTRACT

"Field Worker" is defined as an employee of an agricultural employer who is engaged on any given day in hand-labor operations in the field.

INTERPRETATION

29 CFR 1928.110(b)(III); 1928.110(a)

FEB 6, 1989

MEMORANDUM

SUBJECT: Interpretation of 29 CFR 1928.110(a)

This is in response to the questions contained in your memorandum of February 1988. The questions are answered in the order in which they were presented.

1. "Field Worker" is defined for the purpose of compliance with the Field Sanitation standard, as an employee of an agricultural employer who is engaged on any given day in hand-labor operations in the field.
2. The time span used to determine the number of employees controlled by the employer shall be the single highest number employed at any one time over the past 12 months.
3. Count only those employees who fall within the definition of "Hand-Labor Operations". Particular attention should be given to the excluded field or field-related activities when counting covered employees, as defined at 29 CFR 1928.110(b)(III).
4. The number of employees is not a collective or cumulative count.
5. At least eleven (11) or more employees have to be working in the field on the day of the opening conference or eleven or more must have been employed at work covered within the scope of the standard on any single day, within the past twelve (12) months.

APR 19, 1988

MEMORANDUM

SUBJECT: Interpretation of 29 CFR 1928.110(a)

SCOPE FIELD SANITATION

A request for an interpretation of 29 CFR 1928.110(a) was sent to you on February 15, 1988. To date we have not had a reply. Prior to requesting this written interpretation we had received verbal interpretations in time spans of always less than 2 hours. The growing season is about to start and to properly conduct an inspection this interpretation is needed.

SOURCE LETTER

FEB 15, 1988

MEMORANDUM

SUBJECT: Interpretation of 29 CFR 1928.110(a), SCOPE of FIELD SANITATION

The scope of 29 CFR 1928.110 needs to be clarified.

The term "field worker" has been used in Fact Sheet No. OSHA-87-25 but has not been defined. If "field worker" is to be the same as "hand labor operations" employee please so state.

To assure that all Regions and Area Office personnel understand and transmit the same interpretation of the Field Sanitation Scope, please outline OSHA's meaning of the scope so as to include at least the following:

- 1) What time span is used when establishing the number of employees controlled by the employer;**
- 2) When establishing the number of employees are all employees involved in farm operations counted or is the count limited to just hand labor operation employees in the field(s);**
- 3) Is the number of employees a collective count or is it limited to the number of employees on any single day;**
- 4) On the day of the opening conference, how many hand labor operation employees have to be in the field(s) working to continue the inspection.**

☆ U.S. GOVERNMENT PRINTING OFFICE : 1993 - 339-971

DATE

FILMED

8/22/94

END