**Evaluation of P-101 Course
"Orientation to Occupational
Safety Compliance in DOE"
Taught in Albuquerque, New
Mexico April 28 - May 8, 1992**

D. L. Colley

September 1992

**Prepared for the U.S. Department of Energy
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EVALUATION OF P-101 COURSE
"ORIENTATION TO OCCUPATIONAL
SAFETY COMPLIANCE IN DOE" TAUGHT IN
ALBUQUERQUE, NEW MEXICO
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Richland, Washington 99352

1.0 SUMMARY

This section summarizes trainee evaluations for the Safety Training Section course, "Orientation to Occupational Safety in DOE", (P-101) which was conducted April 28 to May 8, 1992 at Sandia National Laboratory, in Albuquerque, New Mexico.

Section 1.1 and 1.2 of this report summarizes the quantitative course evaluations that trainees provided upon completion of the course. Appendix A provides a transcript of the trainees' written comments.

Numeric course ratings were generally positive and show that the course material and instruction were very effective. Written comments supported the positive numeric ratings. The course content and knowledge gained by the trainees exceeded most of the students' expectations of the course.

Results from the final examination showed that students gained significant knowledge from the course.

CONTENTS

1.0	SUMMARY- SANDIA (APRIL 28 TO MAY 8, 1992)	1.1
1.1	SUMMARY OF TRAINEE COURSE EVALUATIONS AT SANDIA	1.1
1.2	NUMERIC RATINGS	1.1
1.3	WRITTEN COMMENTS	1.5
1.4	EXAMINATION RESULTS	1.5
APPENDIX A	- EVALUATION COMMENTS	A.1
APPENDIX B	- TRAINEE EVALUATION FORM	B.1

1.1 SUMMARY OF TRAINEE COURSE EVALUATION AT SANDIA

This course was conducted at Sandia National Laboratory, Albuquerque, New Mexico, April 28 to May 8, 1992. Three instructors and a course administrator presented the course to thirty-three Sandia Laboratory personnel.

1.2 NUMERIC RATINGS

Thirty-three trainees completed a course evaluation form upon finishing the course. The first rating area of the form covered five items dealing with course content; the second rating area covered one item dealing with testing materials.

For the first and second rating areas, respondents were instructed to rate the degree to which they agreed or disagreed with each statement using a five-point scale with 1 (low) anchored to "strongly disagree" and 5 (high) anchored to "strongly agree". The ratings are as follows:

COURSE CONTENT AND TESTING MATERIALS RATINGS

1. Developed specific skills and competencies in occupational safety compliance that I can use on the job.
Average Class Rating - 4.29
2. Gained a greater understanding of 29 CFR 1910, Occupational Safety and Health Standards
Average Class Rating - 4.51
3. Gained factual knowledge about Federal safety and health program requirements.
Average Class Rating - 4.34
4. Would recommend this course to others.
Average Class Rating - 4.46
5. Compliance knowledge gained from this course will make work environments safer.
Average Class Rating - 4.14

6. The final test was a good measure of the knowledge gained in the course.
Average Class Rating - 3.91

The average class rating for the course content area and testing materials area was 4.28. This high rating reinforces the applicability of the course content to the trainees' interests and work environments.

1.3 WRITTEN COMMENTS

After providing numeric course evaluations, participants provided written comments about the course. Written comments were transcribed and are presented verbatim in Appendix A.

This course was well received and successful, given the wide range of duties and interests of the participants. A broad mix of attendees made the course challenging to teach, but the variety caused a kind of interaction which perceivably opened some previously closed safety channels between management, the safety offices of the contractor and DOE, and the bargaining people.

Approximately eight attendees were from other sites, including Carlsbad, Savannah River and Las Vegas. The addition of these people filled the class over capacity for the classroom spaces, but with careful attention to the schedule and after-class question/answer sessions the course went smoothly. These visitors also were helpful in keeping a reality-check in the course, most sites have basically similar safety-related problems and their candid input was helpful; it also offered the opportunity to share some effective solutions discovered in a variety of safety areas.

A concerted effort was made to bring a multitude of actual work-place slides for this course. Many of the students were entry-level safety people with no background in hazard recognition or the recognition of specific machinery, tools, or safety language. The slides, coupled with the excellent hand-outs for each topic area, helped these beginners and delighted the "veterans". Everyone gained knowledge and enhanced skills from examining these photos. They will be more and more interjected into the content areas

for this course; this can be accomplished without disrupting the lesson plan or taking too much time.

1.4 EXAMINATION RESULTS

On the last day of the course, a final examination was administered to thirty-seven attendees. There were thirty multiple choice questions. The scores ranged from 83% to 100% with the average score being 97%. Thirty-seven persons successfully completed the class.

APPENDIX A

EVALUATION COMMENTS

"ORIENTATION TO OCCUPATIONAL SAFETY COMPLIANCE IN DOE"

APRIL 28, 1992 - MAY 8, 1992

ALBUQUERQUE, NM (SANDIA)

APPENDIX A

TRAINEE EVALUATION RESPONSES

P101, "ORIENTATION TO OCCUPATIONAL SAFETY COMPLIANCE IN DOE"

APRIL 28 TO MAY 8, 1992--ALBUQUERQUE, NM

SANDIA

Please briefly describe how your expectations of this course were or were not met.

Clear presentations clarify the essential parts; helpful - necessary information for my job.

I gained a greater understanding of the 29 CFR 1910 series of regulations.

Good information.

Gave a greater understanding of OSHA compliance.

Excellent.

My expectations were met. Excellent instructors and materials.

I expected a more advanced course with more emphasis on interpretations.

They were met.

Expectations were generally met by the wide discussion of all OSHA standards.

Fully.

I expected more interpretations and less drill on the codes, however drill has been useful. If course is for "safety" professionals, you might consider more emphasis on interpretation, as many more knowledgeable students.

Better understanding of how to read and find information in 29 CFR 1910 and 1926.

I got more out of this class than any other "training" or safety conference I have attended. Thank you!

The course was very helpful in 1. learning how to use the "books". 2. learning the relationship of general and specific requirements. I am

still confused by class 1, division 1 hazards and electrical requirements.

Gained a broader understanding of OSHA regulations.

We went through various sections that I may not have looked at on my own.

They were met. How to use the code books and find my way through them. How to classify various problems. Now I know.

I gained a great deal of knowledge about the regulations and practices knowledge.

The most helpful topics covered or activities presented in this course were:
All.

Specific regulations, guarding, health and safety.

Workbooks and handouts.

All topics were helpful.

IH related.

Electrical safety and accident investigations.

Hazard communication.

Interpretations of OSHA requirements.

Everything in general.

Provided much more awareness of safety standards.

Hazard communication.

Electrical, LOTO.

More on machine guarding.

Broad overview.

The practice worksheet and the inspection.

Confined spaces; specifically regulated substances; acquaintance with all regulations. Corbina and Hayes are great. A true credit to the profession.

Laboratory safety, hazard communication.

Book layout.

Inspection very helpful, class exercises working with regulations useful.

Electrical, compressed gas.

All topics were important and beneficial. The walk-thru inspection was great - good to get an idea of what others see and considered important/priority.

Subparts D, E, M, N, O, P, S.

All.

Fire protection, machine guarding.

Inspection responsibilities and procedures. Egress and fire protection.

The actual survey of machine shops was very beneficial.

The least helpful things discussed or done were:

None.

1926 CFR.

Injury/illness.

Construction.

Construction.

When the presenter rattles through the viewgraphs without giving experiences and anecdotes.

Construction.

General industrial hygiene information such as routes of entry.

Injury/Illness reporting.

Personal safety experience.

Construction (insufficient detail to be helpful, though understandable).

The construction code. Some of the visuals were not good quality.

Communications in safety.

Model health standards, office safety.

More emphasis should be given to:

Health/chemical standards. Not necessarily in the course but additional short course could be offered.

1926 CFR and electrical.

Proper emphasis was given to all subjects.

Machine guarding.

Good balance already.

Industrial hygiene - chemical safety and health issues.

1926, Subpart N.

Draft DOE OSHA order/investigations.

Workshop exercises.

DOE application and interpretation of the regulations; bring forth the wonderful, great, and mysterious. 7 volume set - most essential, yet not provided, an absolute must have.

Hazardous communications, confined space.

Management involvement in compliance.

Class exercises plus different styles of presentation (more videotapes, more slides, more films, etc.).

I wish the class were longer so you get more detailed. Also maybe one more inspection would be neat.

The slides showing bad work practices were good. It is helpful to know what to look for during inspections.

More specific examples. Slides would be good. Also more time on 1910.100 thru 1450. These are very important to R&D facilities.

Hazard Communication standard.

Electrical (for Sandia that was where they were looked at in Tiger Teams and self assessments).

Presentations were well balanced.

Less emphasis should be given to:

Welding.

Balance was good.

Communications in safety.

Undecided - no clear choice.

Egress and fire protection.

What specific suggestions do you have for improving future sessions?

More specifics on actual citations from inspection.

Better handouts.

Only problem was available space, seating compact and ventilation.

Better class environment (a little crowded).

Don't assume all participants are particularly knowledgeable in specific safety areas such as machine guarding/electrical, etc. - help with the vocation-specific vocabulary.

Make certain that you give site specific examples so that students know what you're saying applies to how we do timers.

This was a well conducted course compared to the many I have taken.

More time for electrical. Less time spent on safety experience.

Cover lab standard, carcinogens (subpart L), HAZCOM better.

Offer this class more so others can attend.

Site examples. The ones given in this course were great.

Provide filler slides having key points or bits of humor to break the "all slides look the same" tone.

Divide this course into introduction and advanced courses. Spend more time doing exercises and include more inspection.

Don't just run through a reading of slides Troy had a tendency to do this except for areas he was familiar with.

Other materials to supplement or substitute for the provided handouts?

None.

Materials were adequate.

5000.3A, 5480.19.

Better copies of handouts (not the course overheads but stuff after the pink pages), they look like the original was not used, some can not be read.

No suggestions at this point.

Photographs of examples - especially of equipment we are not familiar with. The line drawings are not the best.

Great!

More pictures to illustrate common violations.

1. 7 volume set distribution. 2. More emphasis on DOE application/interpretation.

Handouts are good. Some are excellent.

Some of the information in pinic section not readable because it's been xeroxed too many times.

Daily schedule/timing of activities, worktime?

Okay.

I'm not sure course could be shortened, but if course is to be this long, more consideration should be given to scheduled breaks in middle of day (say 2 hours) for lunch and work related activities.

Good.

Adequate.

Was just right.

Good time frames.

Very good.

It was a long class but there were sufficient breaks.

Good - Don't plan worktime. This time should be spent on training only.

Taking a break at end of day and then letting class go after 15 minutes.

Okay. We could have gone until 4:30 to allow for more time on some topics.

Great!

Maybe that extra day (10 work days) would allow for more topics to be covered.

Just fine.

Facilities/training room arrangements?

Best at DOE.

Second room too small.

Good.

Were good.

Okay thanks, Sandia for the food.

Too cold.

Okay.

Less crowded room (the Coronado Club was more convenient than the DOE facility, but the room was cramped).

Room at C-Club too crowded. Because of length of course, these arrangements are critical to creative comforts and student attentiveness.

Room at Coronado Club a little small.

Okay at DOE, bad chairs at Coronado Club.

A little crowded. Maybe less people in class would work.

Coronado Club - overcrowding. Cold one day stuffy the next.

There are better rooms at the Coronado Club. The DOE facility was better.

A bit crowded but overall facilities were fine. Refreshments were appreciated.

They were fine. All courses like these should be off-site to eliminate interruptions.

Sucked - deplorable; overcrowded/uncomfortable/poor lighting/bad visibility beyond the control of the instructors, I recognize that.

Rooms were too crowded to handle as many books as we used.

Too cold too cramped. DOE facility security "dog on leash" objectionable (I have a Q clearance).

What other types of safety training courses would you like to see available?
Courses which would prepare for IH certification.

A mini OSHA class for the rank and file.

Emphasis on health standards.

More OSHA.

Specific OSHA training in HAZCOM, chemical hygiene, Hazwoper.

HAZ waste generator and storage. Fire protection/prevention, environmental regulations.

Short courses on specific standards.

Specifically oriented toward Industrial hygiene, chemical handling, reactive materials, health protection.

Don't know. I busy taking the ones already available.

NEC (National Electrical Code).

Line safety code. NFPA/NEC.

Maybe an annual OSHA refresher course to provide up to date information.

Lab research supervisor - overview of OSHA, personal responsibility, how to have. Safety briefing - TNG of subordinates. Records responsibility to enforce/discipline.

Divide this class: 1 for health aspects (industrial hygiene) and one for safety.

Course in electrical safety, trenching, guarding. I think these are available.

You folks should take a look at Sandia's electrical safety training courses. Basic, ELC-105, 600V class, ELC-109, high voltage class, ELC-110>600V, and R&D electrical safety, ELC-106.

Any further comments?

I've attended some OSHA training Institute courses. This course EXCELS theirs on every possible account!

Great teachers.

Excellent instructors - provided hands-on insight.

Good course. Well worth the time and money - one of the best I've seen.

Instructors were very good. Never assume students know everything. Deana hurried through review and other presentations. Dick a few times put people on the spot. Asked "how many don't know?" Troy covered objects very well. Overall very good job!

I enjoy hearing the "real life" examples offered by all of the instructors.

This opportunity was very much appreciated. More classes offered such as this should be available in states and places other than the OSHA institute so that more people could attend.

The instructors were wonderful, humorous, well informed.

Good instructors!

The best instructors I've ever had through the years I have been OSHA on former OSHA people.

More slides and demonstrations would be helpful, particularly for beginners.

The most extensive and enlightening training course I have taken in the DOE/Sandi education/training process. Excellent course books.

APPENDIX B

TRAINEE EVALUATION FORM

EVALUATION FORM
P-101—Orientation to Occupational
Safety Compliance in DOE

Date _____
 Name (optional) _____
 Title _____
 Location _____

Please evaluate various features of the course you have just completed. The information you provide here will be combined with that from other attendees and summarized for the sponsor, the U.S. Department of Energy. Results from this evaluation will be used to improve this course.

Course Content	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Overall, as a result of this course I believe that I:					
developed specific skills and competencies in occupational safety compliance that I can use on the job. 5	4		3	2	1
gained a greater understanding of 29 CFR 1910, Occupational Safety and Health Standards. 5	4		3	2	1
gained factual knowledge about Federal safety and health program requirements 5	4		3	2	1
would recommend this course to others. 5	4		3	2	1
compliance knowledge gained from this course will make work environments safer. 5	4		3	2	1

Testing Materials	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
The final test was a good measure of the knowledge gained in the course. 5	4		3	2	1

Comments

- Please briefly describe how your expectations of this course were or were not met. _____

- The **most** helpful topics covered or activities presented in this course were: _____

- The **least** helpful topics or activities in this course were: _____

- More emphasis should be given to: _____

5. Less emphasis should be given to: _____

6. What specific suggestions do you have for improving future sessions?

7. Other materials to supplement or substitute for the provided handouts? _____

8. Daily schedule/timing of activities, worktime? _____

9. Facilities/training room arrangements? _____

10. What other types of safety training courses would you like to see available? _____

11. Any further comments? _____

12. **Overall rating:** Based on your comments above, please rate the course on a 5-point scale by circling the number of your choice.

5 Excellent

4 Very Good

3 Good

2 Satisfactory

1 Unsatisfactory

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U.S. Department of Energy
EH-31.2
19901 Germantown Rd.
Germantown, MD 20874

Dick Hayes
Hayes Environmental
5727 Airport Highway
Toledo, OH 43615

Troy Corbin
Marine and Environmental
Testing
4415 N. Mississippi St.
Portland, OR 97217