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**Evaluation of S-101 Course
"Supervisors Orientation to
Occupational Safety Compliance
in DOE" Taught in Amarillo, Texas
May 19 - 22, 1992**

T. S. Wright

September 1992

**Prepared for the U.S. Department of Energy
under Contract DE-AC06-76RLO 1830**

**Pacific Northwest Laboratory
Operated for the U.S. Department of Energy
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PNL-8309

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BATTELLE MEMORIAL INSTITUTE
for the
UNITED STATES DEPARTMENT OF ENERGY
under Contract DE-AC06-76RLO 1830

Printed in the United States of America

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PNL--8309

DE93 000414

EVALUATION OF S-101 COURSE
"SUPERVISORS ORIENTATION TO OCCUPATIONAL
SAFETY COMPLIANCE IN DOE" TAUGHT IN
AMARILLO, TEXAS
MAY 19, 1992 - MAY 22, 1992

T.S. Wright

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Pacific Northwest Laboratory
Richland, Washington 99352

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1.0 SUMMARY

This section summarizes trainee evaluations for the Safety Training Section course, "Supervisors' Orientation to Occupational Safety in DOE", (S-101) which was conducted May 19-22 at the Pantex Plant, in Amarillo, Texas.

Section 1.1 and 1.2 of this report summarize 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- PANTEX (MAY 19 TO 22, 1992)	1.1
1.1	SUMMARY OF TRAINEE COURSE EVALUATIONS AT PANTEX	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 PANTEX

This course was conducted at Pantex, in Amarillo, Texas, May 19-22, 1992. Tommye Wright, and Gary LeMoine presented the course to thirty-one Mason and Hanger, Battelle, and DOE/Amarillo Area Office personnel.

1.2 NUMERIC RATINGS

Thirty-one trainees completed a course evaluation form upon finishing the course. The first rating area of the form covered seven items dealing with course content; the second rating area covered one item dealing with testing materials; and the third rating area covered fifteen items specifically associated with course topic areas.

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 health and safety that I can use as a supervisor on the job.
Average Class Rating - 4.42
2. Gained a greater understanding of safety liability, hazard recognition, hazard evaluation and hazard control.
Average Class Rating - 4.55
3. Gained factual knowledge about health and safety issues and procedures (terminology, classifications, regulations).
Average Class Rating - 4.52
4. Learned fundamental principles, generalizations, and theories.
Average Class Rating - 4.29
5. Can use the course materials to improve thinking, problem-solving, and decision-making of supervisory health and safety work.
Average Class Rating - 4.55

6. Would recommend this course to others.

Average Class Rating - 4.58

7. This course will help supervisors to make their work environments safer.

Average Class Rating - 4.45

8. The final test was a good measure of the knowledge gained in the course.

Average Class Rating - 4.16

The average class rating for the course content area and testing materials area was 4.44. This high rating reinforces the applicability of the course content to the trainees' interests and work environments.

The Pantex site has a strong position on training. They feel that mandated classes should be attended 100%. Therefore, the attendees did not leave class to make phone calls or attend meetings.

I believe this attitude improved the class for everyone. The test scores and ratings were exceptionally high.

The third rating area asked the respondents to rate the value of each of the fifteen topic areas using a five-point scale with 1 (Unsatisfactory), 2 (Satisfactory), 3 (Good), 4 (Very Good), or 5 (Excellent). The following are the average class ratings that dealt with topic content as well as with the value of the instructor:

INSTRUCTOR	TOPICAL AREAS PRESENTED	INSTRUCT	CONTENT
Tommye Wright	Introduction to DOE Safety and Health Program	4.16	4.00
Tommye Wright	Safety Responsibility	4.23	4.13
Gary LeMoine	Electrical Hazards	4.10	3.94
Tommye Wright	Fire Hazards	4.29	4.23
Gary LeMoine	Material Handling and Storage	4.19	3.94
Gary LeMoine	Physical Hazards	4.16	4.06
Gary LeMoine	Chemical Hazards	4.10	4.06
Tommye Wright	Confined Space Hazards	4.39	4.23
Tommye Wright	Hazard Communication	4.16	4.06
Gary LeMoine	Hand and Portable Power Tools	4.13	3.87
Tommye Wright	Machine Safeguards	4.19	4.19
Gary LeMoine	Inspections and Investigations	4.19	4.19
Tommye Wright	Job Safety Analysis	4.03	4.06
Gary LeMoine	Measurement and Testing	4.06	3.90
Gary LeMoine	Hazard Reduction and Elimination	4.13	4.13

The overall average class rating for specific topic content was 4.07. The overall average class rating for the instructors in general was 4.17. The average instructor rating for Tommye Wright was 4.21 and the average instructor rating for Gary LeMoine was 4.13.

In addition to the topics listed above, Gary LeMoine gave a brief discussion on the legal liabilities of Supervisors in the GOCO community.

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.

1.4 EXAMINATION RESULTS

On the last day of the course, a final examination was administered to thirty-one attendees. There were 25 multiple choice questions. The scores ranged from 84% to 100% with the average score being 87.4%. Thirty-one persons successfully completed the class.

APPENDIX A

EVALUATION COMMENTS

"SUPERVISORS' ORIENTATION TO OCCUPATIONAL SAFETY IN DOE"

MAY 19, 1992 - MAY 22, 1992

AMARILLO, TX (PANTECH)

APPENDIX A

TRAINEE EVALUATION RESPONSES

S101. "SUPERVISORS' ORIENTATION TO OCCUPATIONAL SAFETY IN DOE"

MAY 19-22, 1992--AMARILLO, TX

PANTEX

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

Adequate.

It did not meet my expectations that it would be boring, narcotic and inundate us with useless information. Thank you.

More interesting than I expected.

The instructors were very knowledgeable.

Looking for overview and working knowledge of CFR.

This course answered a lot of questions that I had regarding all of these subjects.

I believe that insights into OSHA code was met and the "how to" far exceeded my expectations.

Met well.

Sups. responsibility reinforced.

Understand how to use and understand CFR's.

Met by given an excellent understanding of the proper use of OSHA standard 29 1910.

Wasn't sure what to expect.

Code of regulations are well understood at this point.

The material and instructors were great and very knowledgeable.

It gave me an introduction to CFR 29.

Very well. Legal responsibility highlighted.

Course more than met my expectations.

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

Liabilities.

Safety topics.

Fire protection and PPE.

The assessment on inspections.

I feel that each topic was very meaningful.

Use of CFR book, electrical--will take back and review in detail.

Use of CFR's.

Good legal information.

Job safety analysis, hazard reduction and elimination.

CFR manuals.

Machine safeguarding.

Fire hazards, hazard communication.

Inspection and investigation.

Responsibilities of supervisors.

The most helpful part of the course was teaching me how to read the CFR books and how to find topics and specific items.

Use of CFR 1910.

All topics discussed were quite helpful to me.

The least helpful things discussed or done were:

Fire protection.

I felt these topics were all essential to me as a supervisor.

Machine safeguarding (personally).

Machine guarding.

Measurement and testing.

Confined spaces.

Two topics of least importance were HAZCOMM and hearing section. They were least helpful because we have had these a lot; however it is still good to be refreshed.

Hazard Communication.

More emphasis should be given to:
Doing an actual inspection--supervised.

Chemicals.

Electrical hazards.

Hazard reduction and elimination.

Chemical - 1910.100 to the end.

Fire hazards, hazard communication.

Measurement and testing.

I really think everything was great and it should stay the way it is.

Reviewing the worksheet of the hazards used and examples on how to use the CFR books.

OSHA training requirements.

Less emphasis should be given to:
Identify code numbers for specifics.

Once again, I felt these topics were all were interesting and essential.

All important.

What specific suggestions do you have for improving future sessions?
Smaller classes. More discussion.

Explain chain of hazard.

Use more actual documented examples of other facilities.

Make it shorter.

Better training class (room arrangement and instructor equipment).

Additional time and a more in-depth study.

More structured physical inspection of work areas.

Demonstrate some simple tests; water, air.

Other materials to supplement or substitute for the provided handouts?

Helpful numbers and addresses.

Satisfactory.

CDROM!

Video presentations.

No other materials are necessary.

Daily schedule/timing of activities, worktime?

Fine.

Excellent use of available time.

No movies. Videotape right after lunch.

Good.

Great.

Satisfactory.

Good, well presented.

Facilities/training room arrangements?

Good.

Possibly more room.

Crowded classroom.

Need more room for a class this size.

Too compact.

Crowded, not enough room.

Wish the room was compatible with overhead projector.

Okay.

Quiet and comfortable, but too close for comfort.

Need a larger room.

Satisfactory.

Excellent.

What other types of safety training courses would you like to see available?
Courses on PPE.

Anything that would help a first line supervisor to better function.

Construction.

Any further comments?

Great class!

Very informative. Thanks.

I have no constructive comments (or destructive either).

Class is far too much for time allotted.

This should be required for all line supervisors. Incredible as it may seem, this is the second multi-day class I've been to that involved attorneys as instructors and they have been the two best provided by the company.

Can be condensed.

Lawyers are not so bad.

I thoroughly enjoyed this class.

Instructors (Tommye and Gary) kept the class alert with fun and interaction and participation.

Past experience as regards air cleanliness should not influence decision to test air particulate levels. The least exacted area may have a high level of contamination. PEL's and STEL's are charted in the regulations. However, one does not know when these levels are being experienced until tests are done, first especially for wood fibers located close to the "work piece area", only.

APPENDIX B

TRAINEE EVALUATION FORM

EVALUATION FORM

S-101—Supervisors Orientation to Occupational Safety 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 trainees 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 health and safety that I can use on the job.5	4		3	2	1
gained a greater understanding of safety liability, hazard recognition, hazard evaluation and hazard control.5	4		3	2	1
gained factual knowledge about health and safety issues and procedures (terminology, classifications, regulations) ...5	4		3	2	1
learned fundamental principles, generalizations, and theories.5	4		3	2	1
can use the course materials to improve thinking, problem-solving, and decision-making of supervisory health and safety work.5	4		3	2	1
would recommend this course to others.5	4		3	2	1
this course will help supervisors to make their 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

Topic Areas

Please evaluate each topic area using the 5-point scale below.

5 Excellent 4 Very Good 3 Good 2 Satisfactory 1 Unsatisfactory

	Content					Instructor				
Introduction to DOE safety and health program	5	4	3	2	1	5	4	3	2	1
Safety responsibility	5	4	3	2	1	5	4	3	2	1
Electrical hazards	5	4	3	2	1	5	4	3	2	1
Fire hazards	5	4	3	2	1	5	4	3	2	1
Material handling and storage	5	4	3	2	1	5	4	3	2	1
Physical hazards	5	4	3	2	1	5	4	3	2	1
Chemical hazards	5	4	3	2	1	5	4	3	2	1
Confined space hazards	5	4	3	2	1	5	4	3	2	1
Hazard communication	5	4	3	2	1	5	4	3	2	1
Hand and portable power tools	5	4	3	2	1	5	4	3	2	1
Machine safeguards	5	4	3	2	1	5	4	3	2	1
Inspections and investigations	5	4	3	2	1	5	4	3	2	1
Job safety analysis	5	4	3	2	1	5	4	3	2	1
Measurement and testing	5	4	3	2	1	5	4	3	2	1
Hazard reduction and elimination	5	4	3	2	1	5	4	3	2	1

Comments

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

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

3. The least helpful topics or activities in this course were: _____

4. 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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