**Evaluation of S-101 Course
"Orientation to Occupational
Safety Compliance in DOE" Taught
in Albuquerque, New Mexico
January 21 - 24, 1992**

T. S. Wright

February 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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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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EVALUATION OF S-101 COURSE
"ORIENTATION TO OCCUPATIONAL SAFETY
COMPLIANCE IN DOE" TAUGHT IN
ALBUQUERQUE, NEW MEXICO
JANUARY 21, 1992 - JANUARY 24, 1992

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Richland, Washington 99352

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1.0 SUMMARY

This section summarizes trainee evaluations for the Safety and Health Training Section course, "Supervisors' Orientation to Occupational Safety in DOE", (S-101) which was conducted January 21-24 at Sandia National Laboratory, in Albuquerque, New Mexico.

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.

1.1 SUMMARY OF TRAINEE COURSE EVALUATION AT SANDIA

This course was conducted at Sandia National Laboratory, in Albuquerque, New Mexico, January 21-24, 1992. Two instructors presented the course to twenty-three Sandia National Laboratory and Ross personnel.

1.2 NUMERIC RATINGS

Twenty-two 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 two items dealing with testing materials; and the third rating area covered twelve 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 - 3.50
2. Gained a greater understanding of safety liability, hazard recognition, hazard evaluation and hazard control.
Average Class Rating - 3.55
3. Gained factual knowledge about health and safety issues and procedures (terminology, classifications, regulations).
Average Class Rating - 3.55
4. Learned fundamental principles, generalizations, and theories.
Average Class Rating - 3.41
5. Can use the course materials to improve thinking, problem-solving, and decision-making of supervisory health and safety work.
Average Class Rating - 3.77
6. Would recommend this course to others.
Average Class Rating - 3.68
7. This course will help supervisors to make their work environments safer.
Average Class Rating - 3.77
8. The final test was a good measure of the knowledge gained in the course.
Average Class Rating - 3.09
9. The final test (and pre-test) thoroughly covered materials and instruction presented in the course.
Average Class Rating - 3.09

The average class rating for the course content area and testing materials area was 3.49. This high rating reinforces the applicability of the course content to the trainees' interests and work environments.

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	4.14	3.86
Gary LaMoine	Safety Responsibility	4.29	4.10
Gary LaMoine	Electrical Hazards	4.05	3.81
Tommye Wright	Fire Hazards	4.10	3.95
Tommye Wright	Material Handling and Storage	3.24	3.14
Gary LaMoine	Physical Hazards	4.14	4.05
Gary LaMoine	Chemical Hazards	4.14	3.90
Tommye Wright	Confined Space Hazards	4.24	4.10
Tommye Wright	Hazard Communication	4.19	3.95
Gary LaMoine	Hand and Portable Power Tools	4.29	3.95
Tommye Wright	Machine Safeguards	4.19	4.10
Gary LaMoine	Inspections and Investigations	4.19	4.00
Tommye Wright	Job Safety Analysis	4.10	4.00
Gary LaMoine	Measurement and Testing	4.10	3.86
Gary LaMoine	Hazard Reduction and Elimination	4.24	4.14

The overall average class rating for specific topic content was 3.67. The overall average class rating for the instructors in general for Tommye Wright was 4.03, and for Gary LaMoine the rating was 4.18.

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 twenty-three attendees. There were 25 questions including 16 multiple choice questions and 9 questions that required the trainees to list the appropriate answers. The scores ranged from 84% to 100% with the average score being 95.5%. Twenty-three persons successfully completed the class.

APPENDIX A

EVALUATION COMMENTS

"SUPERVISORS' ORIENTATION TO OCCUPATIONAL SAFETY IN DOE"

JANUARY 21, 1992 - JANUARY 24, 1992

ALBUQUERQUE, NM (SANDIA NATIONAL LABORATORY)

APPENDIX A

TRAINEE EVALUATION RESPONSES

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

JANUARY 21-24, 1992--ALBUQUERQUE, NM

SANDIA NATIONAL LABORATORY

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

Too much material, not enough time.

I was hoping for a little more direct supervisor requirements a lot of this is general employee knowledge.

Good experience. Lot of practical, applicable information.

They were met.

Most of the information went in one ear and out the other.

Course covered tremendous amount of material efficiently.

Better be able to fulfill my work.

About what I expected. Instructors kept course moving.

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

Using regulations and showing experience.

Responsibility area.

Actual use of Federal Register.

Becoming familiar with 1910.

JSA.

Legal basis and requirements.

Confined space, general inspections.

Legal.

Area inspection exercise.

The least helpful things discussed or done were:

Reporting.

HAZCON, material handling.

Relationship to DOE orders

Facility inspections.

Tour (I have been on many with consultants at hand).

Measurement and testing. We can't do it anyway.

More emphasis should be given to:

Confined space and measurement.

Walk thru/hands on inspection.

Less emphasis should be given to:

I don't have a big chemical problem.

What specific suggestions do you have for improving future sessions?

More group exercises-hands-on training.

Condense coverage to equal 3 and 1/2 day sessions. Most people were not supervisors.

Too much in a short time, some topics covered very briefly.

During the first sessions the information was given so rapidly (talked to fast) it was difficult to follow.

Expand time available to discuss inspection exercise.

Other materials to supplement or substitute for the provided handouts?

Need handouts on eye wash and other items not covered in CFR.

Practical demonstration.

Have other codes available for regulations.

Handouts were good.

Cover sheets (at least) for reference publications (NFPA, NEC, NIOSH, etc.)

Daily schedule/timing of activities, worktime?

Hard to reserve this much time.

Good.

OK.

Adequate.

OK. Hard for many supervisors and managers to clear schedule for 3.5 days though.

Generally good.

Facilities/training room arrangements?

Need coffee available throughout the class.

Satisfactory.

Excellent.

OK.

Fine.

Very good.

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

Recordkeeping.

Those for specific needs.

Short course covering material for technicians.

(More of same). Bottom line practical type.

Something describing real electrical requirements.

Any further comments?

Both instructors and the materials were excellent.

Thanks for making this an effective and enjoyable class.

Good instructor team.

I did enjoy the class and learned a great deal. As commented before, the delivery was so fast sometimes that it was difficult to take notes. Thanks for the extra books.

APPENDIX B

TRAINEE EVALUATION FORM

EVALUATION FORM

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

	5	4	3	2	1	5	4	3	2	1
	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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