**Evaluation of S-101 Course
"Supervisors Orientation to
Occupational Safety Compliance in
DOE" Taught in Upton, New York
July 14 - 17, 1992**

T. S. Wright

September 1992

**Prepared for the U.S. Department of Energy
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EVALUATION OF S-101 COURSE
"SUPERVISORS ORIENTATION TO OCCUPATIONAL
SAFETY COMPLIANCE IN DOE" TAUGHT IN
UPTON, NEW YORK
JULY 14, 1992 - JULY 17, 1992

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Richland, Washington 99352

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 July 14-17 at Brookhaven National Laboratory, in Upton, New York.

Sections 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.

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1.1 SUMMARY OF TRAINEE COURSE EVALUATION

This course was conducted at Brookhaven National Laboratory, in Upton, New York, July 14-17, 1992. Tommye Wright and Gary LeMoine presented the course to twenty-seven Brookhaven employees.

1.2 NUMERIC RATINGS

Twenty-seven 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 - 4.23
2. Gained a greater understanding of safety liability, hazard recognition, hazard evaluation and hazard control.
Average Class Rating - 4.19
3. Gained factual knowledge about health and safety issues and procedures (terminology, classifications, regulations).
Average Class Rating - 4.04
4. Learned fundamental principles, generalizations, and theories.
Average Class Rating - 3.92
5. Can use the course materials to improve thinking, problem-solving, and decision-making of supervisory health and safety work.
Average Class Rating - 4.27

6. Would recommend this course to others.

Average Class Rating - 4.46

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

Average Class Rating - 4.19

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

Average Class Rating - 3.50

The average class rating for the course content area and testing materials area was 4.10. 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	4.42	4.08
Gary LeMoine	Safety Responsibility	4.31	4.04
Tommye Wright	Electrical Hazards	4.15	3.77
Tommye Wright	Fire Hazards	4.42	4.23
Gary LeMoine	Material Handling and Storage	4.00	3.88
Gary LeMoine	Physical Hazards	4.23	4.00
Gary LeMoine	Chemical Hazards	4.12	3.96
Tommye Wright	Confined Space Hazards	4.15	4.04
Tommye Wright	Hazard Communication	4.12	4.04
Gary LeMoine	Hand and Portable Power Tools	4.04	3.81
Tommye Wright	Machine Safeguards	4.08	3.88
Gary LeMoine	Inspections and Investigations	4.08	4.08
Tommye Wright	Job Safety Analysis	4.08	4.23
Gary LeMoine	Measurement and Testing	4.19	3.96
Gary LeMoine	Hazard Reduction and Elimination	4.08	4.08

The overall average class rating for specific topic content was 4.00. The average instructor rating for Tommye Wright was 4.20 and the average instructor rating for Gary LeMoine was 4.13.

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.

Many comments were recieved on the classroom provided. The space was ample, but not air conditioned. Many participants were uncomfortable.

1.4 EXAMINATION RESULTS

On the last day of the course, a final examination was administered to twenty-seven attendees. There were 25 questions all 16 multiple choice questions. The scores ranged from 76% to 100% with the average score being 92%. Twenty-seven persons successfully completed the class.

APPENDIX A

EVALUATION COMMENTS

"SUPERVISORS' ORIENTATION TO OCCUPATIONAL SAFETY IN DOE"

JULY 14, 1992 - JULY 17, 1992

UPTON, NY (BROOKHAVEN NATIONAL LABORATORY)

APPENDIX A

TRAINEE EVALUATION RESPONSES

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

JULY 14-17, 1992--UPTON, NEW YORK

BROOKHAVEN NATIONAL LABORATORY

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

This course exceeded my expectations of information.

All hazards that I have come in contact with had been addressed.

Fully met.

Subject matter met my needs.

I believe my expectations were met very well during the course.

I suggest the course be more specific, it was too broad.

Good introduction to inspection methods and standards use.

Were met and most helpful in my understanding of the problems encountered.

According to CFR all okay, but more stress should have been met toward BNL and to routes to solve the problem.

I think this course could be made shorter.

I have gained more knowledge of safety practices and also more respect for inspectors.

Adequate, should have managers attend also.

Obtained general understanding of OSHA CFR 29.

Come into class with open mind, therefore not let down, course very informative.

Having had no formal training in this area it was very good. My only expectation come from my military background.

Became more familiar with 1910.

A better understanding of the OSHA standards and being able to locate the regulations.

Covered material I already knew.

The most helpful topics covered or activities presented in this course were:
All topics covered during the course will be helpful in performing my job.

Electrical flammable.

Hazcom.

Awareness of what to look for.

Materials handling and storage.

Job safety analysis.

Technique of safety inspection.

Hazardous communication.

Familiarization with CFR handbooks.

Electrical, HAZCOM, confined spaces.

The inspection of the equipment shop.

Familiarization with codes/requirements and how to find them.

Safety chemical and physical hazards.

I considered all topics equally important because I must consider each in my job particular.

Reading through the OSHA numbering system.

Material handling, flammables, etc.

How to read CFR.

General safety issues.

The least helpful things discussed or done were:

None.

Legal responsibilities.

Chemical.

Welding, cutting and brazing.

Chemical hazards.

Detail of standards which can be found in books.

None apparent.

General overview of the blue book.

CFR 29 books. Very poorly written and difficult to follow.

LOTO, we have in our own department, very extensive LOTO training.

The bad coffee.

Electrical hazards and confined spaces.

Hazardous waste legal.

To me - chemicals.

More emphasis should be given to:

Legal ramifications.

Integration of course material with specific information on BNL policy.

Specific lab problems (research labs).

JSA.

Cutting time down on classes to maybe 4 hrs. For partime persons.

Job safety.

Methodology of inspection, practical use of standards.

BNL.

Cover more general safety and less specific codes.

Going through book and filing the worksheets.

How this facility will come in compliance with OSHA standards -
recommend having senior level Lab manager give support for the program.

Referenced material in 1910. Where to find also in the back of 1910 is
my opinion all the standards in alphabetical order which are easier to
use.

Working with the CFR's.

Cures for problems.

Using the books.

Less emphasis should be given to:
Can't really think of any.

Particular code specifications.

"OSHA".

Code numbers.

N/A.

Legal topics.

What specific suggestions do you have for improving future sessions?
Link the course to site-specific programs (i.e., BNL, respirator
training, etc.).

Homework for researching of codes.

Being more specific.

Some kind of manual which can explain the code books.

Felt that the sessions were well organized and presented.

More specific to BNL.

Condense the material.

More worksheets. Perhaps as a type of homework.

When looking for the specific particulars for violations make it more
important aspects of learning material.

Involvement with 1st line supervisors.

More site tours and showing programs that do work.

I think class should be given in fall or early winter.

Make the class more specific to the groups attending.

Other materials to supplement or substitute for the provided handouts?

Blue book could have been better.

ANSI, DOE practice follow up with safety inspection.

Should include the referenced NIOSH and ANSI publications.

CFR books very difficult to follow.

Very adequate.

Any other informative booklets made references to should be passed out of address given.

ANSI standards availability.

None.

More videos.

Daily schedule/timing of activities, worktime?

Would like to see more activities going on outside of scheduled instruction time to provide flexibility in schedules.

Okay.

Good.

Okay, could have fewer/shorter breaks.

Well planned.

No significant negative impact, everything went smoothly.

Scheduling okay.

Class too long.

Cut down to 4 hours class.

4 days, 8 hours takes away from work.

Facilities/training room arrangements?

You did the best you could.

Okay.

AC or heat when needed.

Poor.

Adequate.

Fair to good.

The first day was a little warm, but tables are better than the small desks.

Should have planned for air conditioned area before arrival.

Only at BNL.

Poor, shifted around too much.

Great.

Need classroom setting to work effectively with materials.

Fair.

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

Accident/Injury investigation.

Various types.

Particular hazard training, i.e., electrical.

Working with chemicals.

Construction and maintenance.

Specifics on hi-voltage, compressed flammable gases.

More class devoted to supervisors who are the responsible people for corrective action.

CFR 49.

Courses for visitors.

Any further comments?

I enjoyed this class very much, and both instructors did an excellent job.

More emphasis on legal aspects.

Instructors were very good.

Adhere more strictly to course outlines and panels in book.

Tied into Divian's ES&H program (SEAPPM, QA, etc.).

Good training for those who have not been instructed to this material before.

Great job Tommye and Gary! The instructors were very informative/professional. They kept the course very interesting.

Both instructors were successful in making the training interesting and partisipative.

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
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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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