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EVALUATION OF S-101 COURSE
"SUPERVISORS ORIENTATION TO OCCUPATIONAL
SAFETY IN DOE" TAUGHT IN
STANFORD, CA
JULY 28, 1992 - JULY 31, 1992

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MASTER

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 28-31 at Stanford Linear Accelerator Laboratory, in Stanford, California.

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.

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1.1 SUMMARY OF TRAINEE COURSE EVALUATION

This course was conducted at Stanford Linear Accelerator Laboratory, in Stanford, California, July 28-31, 1992. Tommye Wright and Gary LeMoine presented the course to thirty-two SLAC employees.

1.2 NUMERIC RATINGS

Thirty 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 - 4.30
2. Gained a greater understanding of safety liability, hazard recognition, hazard evaluation and hazard control.
Average Class Rating - 4.40
3. Gained factual knowledge about health and safety issues and procedures (terminology, classifications, regulations).
Average Class Rating - 4.47
4. Learned fundamental principles, generalizations, and theories.
Average Class Rating - 4.07
5. Can use the course materials to improve thinking, problem-solving, and decision-making of supervisory health and safety work.
Average Class Rating - 4.33

6. Would recommend this course to others.

Average Class Rating - 4.50

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

Average Class Rating - 4.43

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

Average Class Rating - 3.97

The average class rating for the course content area and testing materials area was 4.30. 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	3.87	3.73
Gary LeMoine	Safety Responsibility	3.93	3.97
Gary LeMoine	Electrical Hazards	3.97	3.73
Tommye Wright	Fire Hazards	3.93	3.90
Tommye Wright	Material Handling and Storage	3.93	3.70
Gary LeMoine	Physical Hazards	4.03	3.83
Gary LeMoine	Chemical Hazards	3.90	4.03
Tommye Wright	Confined Space Hazards	3.93	3.70
Tommye Wright	Hazard Communication	3.90	3.87
Gary LeMoine	Hand and Portable Power Tools	3.97	3.87
Tommye Wright	Machine Safeguards	4.07	4.07
Gary LeMoine	Inspections and Investigations	3.93	4.07
Tommye Wright	Job Safety Analysis	3.93	3.80
Gary LeMoine	Measurement and Testing	3.93	3.63
Gary LeMoine	Hazard Reduction and Elimination	3.90	3.77

The overall average class rating for content was 3.82. The overall average class rating for the instructors in general was 3.95. The average instructor rating for Tommye Wright was 3.94 and the average instructor rating for Gary LeMoine was 3.95.

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-two attendees. There were 25 multiple choice questions. The scores ranged from 64% to 100% with the average score being 94%. Thirty-one persons successfully completed the class.

APPENDIX A

EVALUATION COMMENTS

"SUPERVISORS' ORIENTATION TO OCCUPATIONAL SAFETY IN DOE"

JULY 28, 1992 - JULY 31, 1992

STANFORD, CA (STANFORD LINEAR ACCELERATOR LABORATORY)

APPENDIX A

TRAINEE EVALUATION RESPONSES

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

JULY 28-31, 1992--STANFORD, CA

STANFORD LINEAR ACCELERATOR LABORATORY

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

Provided an introduction to occupation safety that I needed for my job.

I think this course is very well done.

Met.

Yes, I learned a lot.

A general description of how the course material fits historically and legally would help get orientated.

Expectations: upgraded understanding of OSHA requirements.

About as expected.

Good program, maybe an expanded version for safety requirements.

Fairly deep review of 29 CFR.

Good summary of CFR29.

Introduction to OSHA subject area inspection, compliance, thorough coverage, exercise in class and walkthru.

All met.

The course was excellent, enjoyed all parts.

Gave me the base knowledge I wanted.

The course was comprehensive.

I wanted introduction to 1910 and got it!

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

Inspections and evaluations of hazards.

All.

Fire hazards.

Inspections.

Code exercises in general.

Exercises in code violations.

Reading CFR's, machine guarding.

All were excellent.

Using the CFR was very educational.

Code sections.

Thorough coverage of each of major OSHA section.

Machine guarding, fire, PPE, walking working.

Liability section (excellent), discussion of eye-wash section, hazard violation search workshop questions (excellent).

Introduction on what DOE wants and expects. The hot spots during an inspection.

Looking up citations in CFR's.

The least helpful things discussed or done were:
Electrical hazards, etc.

None.

Chemical hazards.

Hazard recognition.

Laser video tape. Too much detail for this long of course.

Review of proposed standards. Too much emphasis on what instructors thought was going to be final rule. You said should instead of shall. Big difference.

All were important.

Inspection drill.

All were excellent.

Slides.

More emphasis should be given to:

Focus on attendees who work in the same field or discipline.

How to identify or find information in the CFR.

A more serious attitude toward the intent of the laws. i.e., the students are being entrusted with serious responsibilities.

I like show and tell.

Do question exercises.

How training and information should be passed on to employees.

Okay as is.

Presently very well. Possibly in fire hazards reference could have been made to DOE order 5480.7 "fire protection".

Select a few points and emphasize them.

Checklist before walkthru (was handout, but not gone over, or in form with check boxes was blank lines to insert findings.)

(Only a minor issue) More introduction to CFR and how to use index's. Was a bit confusing, but exercises really helped.

Background on regulations.

Engineering/administration controls, specific examples.

Less emphasis should be given to:

Looking up regulations in areas you will not encounter in your work.

The use of the words you and your as in your safety laws, your hazards, your regulations. This makes it sound like a hillbilly teaching the course. Be less cynical about the CFR, these books are not too bad.

Some sections could be covered with examples.

All was good.

All important.

Slides presentation.

Looking up codes exercise. I'd rather you cite codes only with violations first so we can learn the logic or what key words to look for.

What specific suggestions do you have for improving future sessions?
More communication as to where the instructor is on placards.

More comfortable class room.

Tighten contact to 3 days.

Exercise on most serious. Most commonplace, how to control way too long. Would be better to select a few groups to respond.

Put code numbers in workbook for each section (block).

Keep up the good work.

Instructors need to use more vocal variety suggest public speaking training.

Define all acronyms or point them out in text immediately. Don't presume knowledge, when doing slides specific citations.

Other materials to supplement or substitute for the provided handouts?
Apply of OSH general duty clause.

Fire extinguisher demonstrations, more in-depth of specific regulations (general clauses etc.). Provide actual OSHA reports.

Handouts very good.

I'm sure inspectors must have a simpler or abbreviated form or sheets they work from. They might be helpful.

Need computer generated index for OSHA books. Old fashioned invoices are inadequate. DOE should scan into computer, enter keywords and present comprehensive index (volume itself) preferably on optical disk for computer lock-up.

Daily schedule/timing of activities, worktime?

Was okay.

Scheduling is fine.

Good.

Very organized and suited needs of the class very well.

Excellent.

Well paced.

Breaks (10 min) every hour excellent.

Adhere to break schedule, coffee availability (uncomfortable chairs if sitting too long).

Good scheduling.

Okay. More strict adherence to 1 hour/10 minute break would be nice.

Too heavy on the first day or two. My brain cannot absorb everything in an 8 hour period.

Facilities/training room arrangements?

Okay.

Seating too poor.

Poor.

Good. Need to keep door open for fresh air.

Okay, better with a white board.

No donuts (poor), three people to a table (poor).

Retain something (ergonomics) for 3 1/2 days. Physical abuse of backs.

Coffee on first day was a tease. Would it had been too much to ask for I think not...

The chair in the training room are instruments of torture. They're horrible. It distracts from the students ability to concentrate.

?

n

What other types of safety training courses would you like to see available?
In-depth study of section most important to your department.

IH - HP

Courses directed to design and engineering needs.

How to train employees on HAZCOM.

I will like to take the other DOE offered courses. Example -
Construction Safety.

Construction, Electrical, Machine Guarding.

Additional courses like this one.

Any further comments?

Instructors had a very, very complete understanding of their material.
Question 20 has no correct answer. A GFI monitors hot and neutral lines
and interrupts power if they are not equal. A GFI does not monitor
ground current.

We really need to get building managers in here to get a better feel for
overall safety.

Unique expertise of both instructors: law, confined space, OSHA
inspections, tiger teams, inspection of DOE sites, climbing added
substantially to clarification of issues and effective responses.

Give out trivial prizes to group leaders and other participants. These
can be goofy things: hats, paper clip chains, etc.

More upper management personnel need to take this course.

How about donuts in am and sodas in pm?

Male consultant didn't quite have the pace of the teacher (Tommye).
Sometimes bogged down in too many personal stories.

Good mix of lecture and hands on activity with out threat of facing
presentations in form of groups. Makes for effective training.

The instructors were excellent. They did a very good job with the
government training format. Government training is designed to be
standardized and to work for the slowest learner in the class. This
orientation is trying for highly educated professionals such as many of
those at SLAC.

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 program5	4	3	2	1	5	4	3	2	1	
Safety responsibility5	4	3	2	1	5	4	3	2	1	
Electrical hazards5	4	3	2	1	5	4	3	2	1	
Fire hazards5	4	3	2	1	5	4	3	2	1	
Material handling and storage5	4	3	2	1	5	4	3	2	1	
Physical hazards5	4	3	2	1	5	4	3	2	1	
Chemical hazards5	4	3	2	1	5	4	3	2	1	
Confined space hazards5	4	3	2	1	5	4	3	2	1	
Hazard communication5	4	3	2	1	5	4	3	2	1	
Hand and portable power tools5	4	3	2	1	5	4	3	2	1	
Machine safeguards5	4	3	2	1	5	4	3	2	1	
Inspections and investigations5	4	3	2	1	5	4	3	2	1	
Job safety analysis5	4	3	2	1	5	4	3	2	1	
Measurement and testing5	4	3	2	1	5	4	3	2	1	
Hazard reduction and elimination5	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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