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TRAINING EVALUATION INSTRUMENTS



U.S. Department of Energy Washington, D.C. 20585

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FOREWORD

This document provides information to DOE staff and contractors that can be used by training staffs (e.g., instructors, designers, developers and managers) and others for developing training evaluation instruments. This document has been prepared on the basis of methods used at various DOE nuclear facilities. This document can be used as an aid for development of effective training evaluation instruments.

Users are not obligated to adopt any part of this document; rather, they can selectively use the information to establish or improve facility training programs as applicable. This document was based upon DOE Handbook *Guide to Good Practices: Evaluation Instrument Examples*.

Beneficial comments (recommendations, additions, and deletions) and any pertinent data that may be of use in improving this document or subject area should be addressed in the Support Forum Section of this Site.

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1. INTRODUCTION

1.1 Purpose

Training evaluation determines a training program's effectiveness in meeting its intended purpose; producing competent employees. Evaluation is the quality assurance component of a systematic approach to training (SAT) program. This guide provides information on evaluation instruments used to gather employee, supervisor, and instructor feedback to identify strengths and weaknesses of training programs at DOE facilities. It should be used in conjunction with *DOE Training Program Handbook: A Systematic Approach to Training* and *DOE Handbook, Alternative Systematic Approaches to Training*.

1.2 Discussion

The key to conducting an effective training evaluation is to first identify the questions to be answered by the evaluation. Should the program be modified? What performance gains are being realized? Is the need for training being addressed in the best way possible? The purposes of an evaluation include the following:

- To determine if a program is accomplishing its objectives.
- To identify the strengths and weaknesses of a particular training program. To identify which trainees benefitted the most, or the least, from a training program.
- To determine if a program was appropriate for its intended purpose and target population.

Training evaluations should be conducted in all available settings (classroom, laboratory, simulator, and on-the-job training) and at various times (during training, immediately after training, three to six months after training, etc.). "What type of training data is needed?" and "What training setting is being evaluated?" are two questions that will help determine when the evaluation is conducted. The specific setting and time are usually controlled by the level of the training evaluation. There are four levels of evaluation.

Level I:	Reaction	Determines the trainees' opinion of the training program.
Level II:	Learning	Measures the trainees' achievement of the program goals.
Level III:	Application	Determines if trainees are using the new skills on the job.
Level IV:	Results	Measures whether training has a significant influence on the organization's operation.

Internal Evaluations

Levels I and II focus primarily on internal evaluations. Internal evaluation is the process that collects data by reviewing course materials, trainee test and performance data, the trainees' reactions to training, instructor evaluations by training staff, and other information coming from the development and use of the actual training program itself.

Measuring the trainees' reactions to training is usually collected on an end-of-course critique form or questionnaire that records the trainees' impressions about the instructors, course content, materials, facilities, etc. Although this data is subjective, it can be valuable as a quick assessment of training. This data can also be a source of information about the perceived quality of training and materials. Trainees can also be good evaluators of instructor technical competence. The problem with this instrument is that there is very little correlation between how the trainees feel and what they have learned. Examples 6 and 7 are variations of this type.

Instructors are evaluated by the training staff to determine the adequacy of training delivery. This evaluation should be performed by the training supervisor or a qualified staff member. Instructors should be evaluated regularly in terms of technical knowledge, presentation skills, and interpersonal skills for each training setting they are qualified to instruct. The discrepancies identified in these evaluations should be corrected using a systematic method such as a feedback loop. Examples 1, 2, 3, 9, and 10 all relate to this method of evaluation.

Training materials should also be evaluated periodically. This should ensure that the required changes are being incorporated. These changes may include changes to DOE regulations, modifications to equipment or procedures, changes in job scope, and industry operating experiences that impact the training.

External Evaluations

Levels III and IV focus on the impact of the training on the job (external). External evaluation is the process that collects data from prior trainees, supervisors and managers, and from many other outside sources that are beyond the actual domain of the training program.

One method of collecting external evaluation data is to directly observe the graduate during actual job performance. This method is the most direct approach to getting an answer to the question of whether or not the graduate can perform the tasks on the job that he/she was trained. Observations may be performed by a single evaluator or a team composed of evaluators and subject matter experts. A checklist can be beneficial to aid in observations.

A method of collecting data from prior trainees and their supervisors is by using questionnaires. Questionnaires are the least expensive approach for collecting data

from graduates and their supervisors. The validity of these questionnaires reflects how well the evaluators prepared and distributed them. The questionnaire should include the tasks that the trainees were trained to perform. Examples 4 and 5 represent this method.

Another method used to collect data from prior trainees and their supervisors is through personal interviews. This method allows evaluators to collect more detailed information than is possible on questionnaires. Evaluators can also follow-up on unclear responses and can clarify any problems the graduate is having. Interviews should concentrate on determining graduate proficiency. This is best accomplished by using a preplanned list of questions.

Instructional quality data is collected during instruction, immediately after instruction, and at various times after training to assure program maintenance. How data is collected is influenced by the type of evaluation instrument used and by the training being evaluated.

This data, or feedback, can be gathered using checklists, numerical rating scales, questionnaires, interviews, or direct observation. Subcontracted training should not be treated differently than facility operating contractor training; therefore, the same evaluation instruments should apply.

2. TRAINING EVALUATION INSTRUMENTS

Training evaluation instruments can take a variety of forms. Regardless of the material, process, or program being evaluated, general principles should be followed to construct an evaluation instrument. Common formats for many evaluation instruments include checklists, numerical rating scales, questionnaires, interviews, and direct observation.

In the discussion that follows, guidance for developing evaluation instruments is presented and examples of evaluation instruments are provided. The examples provided do not encompass all training activities, and they should be revised to reflect individual training and facility organizational needs.

2.1 Numerical Rating Scale Format

A numerical rating scale can be used to evaluate a trainee's performance on many tasks, group interactions, or instructor performance, or to collect feedback from facility management on trainee performance. The use of this format helps to control the subjectivity of the evaluator and provides better feedback than a simple pass/fail or satisfactory/unsatisfactory format. The numerical rating scale chosen should be adequately anchored at all times to keep the results as objective as possible. Numerical scales can be used to collect post-training feedback from trainees and supervisors and to conduct instructional setting evaluations.

- The following guidance can be helpful when constructing numerical rating scales:
- Select the processes and/or products to be evaluated Determine the response scale
- Define the points on the scale

The rating scale chosen should then be used consistently across the site to promote objectivity during evaluations.

The following examples can be used to collect evaluation data on instructor performance, supervisor post-training feedback, and trainee post-training feedback.

Example 1, Laboratory Instructor Evaluation

Example 2, Instructor Performance Evaluation

Example 3, Simulator Instructor Evaluation

Example 4, Supervisor's Post-training Feedback

Example 5, Trainee Post-training Evaluation

Appendix A contains examples of each type of evaluation instrument listed above.

2.2 Questionnaire Format

A questionnaire format may be used to solicit opinions, obtain information, and collect feedback regarding the work or training environment. For example, questionnaires can be used to collect post-training feedback on initial or continuing training program effectiveness, to gather data that assists in the evaluation of the proper scope of training program content, and to investigate the effects of industry events and/or regulatory changes on the content of a training program.

The following guidance can be helpful when developing a questionnaire-type evaluation instrument:

- Define the purpose of the questionnaire. This can be done by determining what information is needed, who will provide the information, and how the information will be used.
- Determine the source of the evaluation questions to be used in the questionnaire. Questions can come from managers and training staff, previous observations and interview material, and other questionnaires that have been used for similar purposes.
- Determine the types of questions required on the questionnaire. Three different types of questions can be used. The interview technique uses all three types.
 - <u>Performance Questions</u> These questions ask what has actually been performed. They are aimed at obtaining descriptions of actual experiences, activities, or actions where the corresponding performance would be observable if an evaluator were present.
 - <u>Opinion Questions</u> These questions ask for an individual's opinion about something. They are used to gather information concerning people's goals, intentions, desires, or values. This type of question can cause analysis problems because it usually requires agreement or disagreement on the part of the evaluator.
 - <u>Knowledge Questions</u> These questions are used to determine the factual information an individual knows. Facts are not opinions, feelings, or actions but are considered knowledge or truths. Knowledge questions can elicit facts from recollection or can verify facts with a true/false answer. This type of question should be used in conjunction with the other types to prevent the impression that this questionnaire is a test.
- Write the questions. The questions should be clearly focused to aid the respondents in determining the information that is desired. Clear cues should be provided to help accomplish this. The questions should be formatted to be consistent with the type of information sought.

The following examples can be used to collect evaluation data for program development, on-the-job training (OJT), and simulator training.

Example 6, Trainee Feedback Evaluation

Example 7, End-of-Course Training Evaluation

Example 8, Training Program Evaluation

Appendix B contains examples of each type of evaluation instrument listed above.

2.3 Checklist Format

A checklist format can be used to assess a product to determine whether the actions or results meet predetermined standards. A checklist might be used to determine if job performance was satisfactory after training or if an instructional session was conducted properly.

The following guidance can be helpful when constructing a checklist evaluation instrument:

- Identify all actions or key points to be evaluated. Each should be important, observable, and measurable.
- Identify the most frequent problems found in the activity to be evaluated.
- Convert these problems (negative statements) into positive statements that describe satisfactory performance or describe satisfactory products.
- Provide a model or samples of acceptable materials to help the evaluator determine whether standards of accuracy and quality are met.

The following examples can be used to collect evaluation data for instructor observations and for the training department:

Example 9, Instructor Observation Checklist

Example 10, OJT Training Course Evaluation Form

Example 11, Training Development Recommendation Checklist

Example 12, Training Material Request/Update

Appendix C contains examples of each type of evaluation instrument listed above.

2.4 Interviews

Interviews allow the evaluator to adjust the questions to the situation and to probe deeper into areas of interest or concern. This activity can be labor-intensive depending on the number of individuals to be interviewed. Personal interviews may be necessary when collecting feedback concerning the effectiveness of training on a new procedure or plant modification. The following is a list of key considerations for using the interview method:

- Evaluators should follow-up on unclear or incomplete responses.
- Interviewers can clarify any problems the trainee is experiencing.
- Gather data through separate interviews with trainees and their supervisors. The presence of the supervisor during the interview could drastically alter the trainee's responses.
- Always explain to the interviewee who you are and why you are there. The more people who know what is going to happen and what will be done with the data, the more likely it is that their responses will be candid.
- Show a sincere interest in the interviewee and his/her job.
- Do not try to tell the interviewee how to do the job. The interviewee is the job expert. Your job is to collect information about how that person is doing on the job and how well training prepared him/her for it. Try to talk to the interviewees in their own language. Total ignorance of job-related terminology and jargon suggests a lack of interest on the part of the interviewer.
- Remember that the evaluation process is not a blame-placing activity. You should repeatedly communicate to the trainee that you are only there to get information to evaluate and improve the quality of training at your facility.
- The main task of the interviewer is to determine how well the trainee is doing on the job and how well training prepared him/her for the job.
- Use a preplanned list of questions to get honest, pertinent answers relating to how the trainee's skills are being utilized, how well he/she was trained, etc. Keep the interview focused on the collection of pertinent data.
- Accurately record answers to the questions.

2.5 Observation

Direct task observation may be most effective when collecting trainee performance data three to six months after training has taken place. Task observation may be time-consuming, and its effectiveness depends on when the task is performed and the expertise of the observer. A checklist should be prepared and used for observations.

The purpose of a training evaluation also influences the type of instrument used, the training setting observed, and when the evaluation is performed. If the goal of the evaluation is to determine training effectiveness in terms of trainee performance on the job, then an interview survey instrument or an observation instrument would be appropriate. Both instruments should address trainee performance of the task or

training program objective level. The evaluation should be conducted during the scheduled application of the newly-learned skills and knowledge and on a schedule based on the frequency of application (planned).

3. SUMMARY

Program evaluation information should be analyzed before it can be used to make changes in training. Each facility should use a method of analysis that will yield the information required to have positive results. Some types of data should be organized and tabulated prior to analysis to make it more usable. The analysis of the information will confirm program effectiveness or determine that training can contribute to a solution that will correct an existing or potential problem.

The analysis of evaluations and the development of corrective action plans will provide the training organization with positive short- and long-range direction. The collection of data before, during, and after training can provide valuable information for decisions about existing and future training programs. Peer evaluations and facility supervisor evaluations, as well as manager and instructor evaluations, are valuable tools when maintaining a training program. To take full advantage of this evaluation information, it is important that facility and training management conduct regular reviews, and that training personnel are provided feedback directly and through continuing development activities. This will ensure that all training activities are consistently and effectively administered and will produce the results that are intended.

APPENDIX A - NUMERICAL RATING SCALE EXAMPLES

LESSON TITLE:	DATE:
INSTRUCTOR:	LENGTH OF OBSERVATION:
OBSERVED BY:	DATE:
REVIEWED BY:	DATE:

EXAMPLE 1 – Laboratory Instructor Evaluation

Instructions: Below is a list of competency statements that laboratory instructors should use to contribute to the learning process. Read each statement and evaluate the instructor's performance by circling the appropriate rating next to the statement. Written comments for all ratings are encouraged. Comments are required for "unsatisfactory" and "needs improvement" ratings. Space is available to the right of each rating.

EXPLANATION OF RATINGS

0	Not Observed	Activity not observed by the evaluator
1	Unsatisfactory	Failed to perform the required activity
2	Needs Improvement	Performed most essential activities properly
3	Satisfactory	Performed all essential activities properly
4	Above Average	Performed all requirements and exceeds on several
5	Outstanding	Consistently exceeded requirements

GENERAL INSTRUCTIONAL TECHNIQUES

1.

Objectives were stated and explained prior to

COMMENTS 0 1 2 3 4 5

	performance.	0 1 2 3 4 5
2.	Instructor followed the laboratory guide (minimum content and covered within assigned time).	0 1 2 3 4 5
3.	Instructor actively coached trainees during laboratory sessions.	0 1 2 3 4 5
4.	Instructor identified and helped trainees correct knowledge and skill weaknesses	0 1 2 3 4 5

5.	Instructor used trainee responses and other situations as opportunities to teach and reinforce concepts	0 1 2 3 4 5
6.	Instructor projected interest and enthusiasm for the session.	0 1 2 3 4 5
7.	Instructor listened to the trainees and responded to their questions and needs.	0 1 2 3 4 5
8.	Instructor adjusted the pace to the level of trainees' knowledge and ability.	0 1 2 3 4 5
9.	Instructor's movements and gestures were appropriate (not distracting).	0 1 2 3 4 5
10.	Instructor maintained vocal variety (avoiding monotone).	0 1 2 3 4 5
11.	Instructor avoided using distracting vocal mannerisms (and-uh, you know, O.K.).	0 1 2 3 4 5
12.	Instructor summarized activities at the end of the session.	0 1 2 3 4 5
13.	Instructor solicited and answered unresolved trainee questions at the end of the session.	0 1 2 3 4 5

KNOWLEDGE OF SUBJECT MATTER

1.	Instructor explained technical information clearly and concisely.	0 1 2 3 4 5
2.	Instructor pointed out differences that may exist between the laboratory and actual facility procedures and equipment.	0 1 2 3 4 5
3.a	The questions required the trainees to: a. think through causes and effects of laboratory steps	0 1 2 3 4 5
3.b	think through facility conditions, activities, causes, and responses	0 1 2 3 4 5
3.c	integrate knowledge (theory, systems, procedures, tech spec/bases, etc.)	0 1 2 3 4 5

4.	Instructor effectively incorporated the theory of facility operations and industry operating experiences into the laboratory training.	0 1 2 3 4 5	
5.	Enough time was spent on exercises.	012345	

ADDITIONAL COMMENTS:

LESSON TITLE:	DATE:
INSTRUCTOR:	LENGTH OF OBSERVATION:
OBSERVED BY:	DATE:
REVIEWED BY:	DATE:

EXAMPLE 2 - Instructor Performance Evaluation

Instructions: Below is a list of competency statements that laboratory instructors should use to contribute to the learning process. Read each statement and evaluate the instructor's performance by circling the appropriate rating next to the statement. Written comments for all ratings are encouraged. Comments are required for "unsatisfactory" and "needs improvement" ratings. Space is available to the right of each rating.

EXPLANATION OF RATINGS

- 0 Not Observed Activity not observed by the evaluator
 - Failed to perform the required activity Unsatisfactory
- 2 Needs Improvement Performed most essential activities properly
- 3 Satisfactory Performed all essential activities properly
- 4 Above Average Performed all requirements and exceeds on several Consistently exceeded requirements
- 5 Outstanding

MATERIALS

1

1.	The student handout is organized in a logical manner conforming with lesson presentation.	0 1 2 3 4 5
2.	The training material is current and technically accurate.	0 1 2 3 4 5
3.	The training material relates to the learning objectives.	0 1 2 3 4 5
4.	When used, the industry event examples are appropriate.	0 1 2 3 4 5

CONDUCT OF CLASS

Preparation

1.	Classroom physical layout enhanced the learning climate.	0 1 2 3 4 5	
2.	The instructor appeared adequately prepared.	012345	

Introduction

1.	Started class on time.	0 1 2 3 4 5
2.	Provided student handouts.	0 1 2 3 4 5
3.	Stated the purpose of lecture.	0 1 2 3 4 5
4.	Reviewed the objectives for the class session.	0 1 2 3 4 5
5.	Stated a problem to be solved or discussed during the class.	0 1 2 3 4 5
6.	Made explicit the relationship between current subject matter and previous classes.	0 1 2 3 4 5

Presentation

1.	Followed the lesson plan.	0 1 2 3 4 5	
2.	Taught the content in a systematic and organized fashion.	0 1 2 3 4 5	
3.	Defined new terms, concepts, and principles.	0 1 2 3 4 5	
4.	Used clear, simple, and relevant examples to explain major ideas.	0 1 2 3 4 5	

5.	Related new ideas to familiar ones.	0 1 2 3 4 5
6.	Presented information at an appropriate level of detail.	0 1 2 3 4 5
7.	Used alternate explanations when necessary.	0 1 2 3 4 5
8.	Stated the relationship among various ideas in the presentation.	0 1 2 3 4 5
9.	Asked questions to determine if information was presented at a proper rate.	0 1 2 3 4 5
10.	Periodically summarized the important ideas.	0 1 2 3 4 5
11.	Reiterated definitions of new terms to help students become accustomed to them.	0 1 2 3 4 5
12.	Exhibited a level of knowledge adequate to teach the material.	0 1 2 3 4 5
13.	Displayed a positive attitude.	0 1 2 3 4 5
14.	Demonstrated confidence during the class presentation.	0 1 2 3 4 5
15.	Developed a positive rapport with the students.	0 1 2 3 4 5
16.	Requested student participation.	0 1 2 3 4 5

COMMUNICATION SKILLS

<u>Verbal</u>

1.	Voice could be easily heard.	0 1 2 3 4 5	
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2.	Voice was raised or lowered for variety and emphasis	0 1 2 3 4 5
3.	Speech was neither too formal nor too casual.	0 1 2 3 4 5
4.	Rate of speech was neither too fast nor too slow.	0 1 2 3 4 5
5.	Varied the pace of the presentation to keep the students alert.	0 1 2 3 4 5
6.	Spoke at a rate that allowed students time to take notes.	0 1 2 3 4 5
7.	Facilitated discussions effectively.	0 1 2 3 4 5

Non-Verb	al
	a

1.	Established and maintained eye contact with the entire class.	0 1 2 3 4 5	
2.	Listened carefully to student comments and questions.	0 1 2 3 4 5	
3.	Appearance was proper.	0 1 2 3 4 5	
4.	Instructor was enthusiastic about the material presented.	0 1 2 3 4 5	
5.	Noted and responded to signs of puzzlement, boredom, and curiosity of the student.	0 1 2 3 4 5	

QUESTIONING ABILITY

Asking Questions

1.	Asked questions to determine what the students know about the lecture topic.	012345	
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2.	Asked questions that allowed the instructor to gauge student progress	0 1 2 3 4 5
3.	Addressed questions to individual students as well as to the group at large.	0 1 2 3 4 5
4.	Encouraged students to answer difficult questions by providing clues or rephrasing.	0 1 2 3 4 5
5.	Involved as many students as possible in the classroom discussion.	0 1 2 3 4 5
6.	When necessary, asked students to clarify their questions.	0 1 2 3 4 5
7.	Asked probing questions if a student's answer was incomplete or superficial.	0 1 2 3 4 5
8.	Repeated answers when necessary so the entire class could hear.	0 1 2 3 4 5

Answering Questions

1.	Encouraged student questions.	0 1 2 3 4 5
2.	Received student questions politely and, when possible, enthusiastically.	0 1 2 3 4 5
3.	Answered student's questions satisfactorily.	0 1 2 3 4 5
4.	Repeated student's question when necessary.	0 1 2 3 4 5

AUDIO/VISUAL AIDS

1.	Used audio/visual aids to enhance the learning objectives.	012345	
2.	Transparencies/slides were clear and easy to read.	012345	

3.	Board work appeared organized and legible.	012345	
4.	Demonstration performed could be seen by all students.	012345	
5.	Student handout was used effectively by the instructor.	012345	

SUMMARY

1.	The instructor properly summarized the key points of the presentation.	0 1 2 3 4 5
	Strong Points	Suggestions for Improvement
Overall Evaluation Score: 0 1 2 3 4 5		

Overall Evaluation Score: 0 1 2 3 4 5

Signature of Instructor	Date
Signature of Evaluator	Date

LESSON TITLE:	DATE:
INSTRUCTOR:	LENGTH OF OBSERVATION:
OBSERVED BY:	DATE:
REVIEWED BY:	DATE:

EXAMPLE 3 - Simulator Instructor Observation

Instructions: Below is a list of competency statements that laboratory instructors should use to contribute to the learning process. Read each statement and evaluate the instructor's performance by circling the appropriate rating next to the statement. Written comments for all ratings are encouraged. Comments are required for "unsatisfactory" and "needs improvement" ratings. Space is available to the right of each rating.

EXPLANATION OF RATINGS

- 0 Not Observed Activity not observed by the evaluator
 - Unsatisfactory Failed to perform the required activity
- 2 Needs Improvement Performed most essential activities properly
 - Satisfactory Performed all essential activities properly
- 4 Above Average Performed all requirements and exceeds on several
 - Consistently exceeded requirements

CONDUCT OF TRAINING

Outstanding

1

3

5

1.	The objectives were clearly stated	0 1 2 3 4 5
2.	The simulator was set up properly.	0 1 2 3 4 5
3.	Pre-training briefings addressed the following: a. Facility conditions, history, operating orders	0 1 2 3 4 5
	b. Known simulator/facility differences	0 1 2 3 4 5

	c. Turnover/walkdown of the facilities	0 1 2 3 4 5
4.	A realistic atmosphere was maintained.	0 1 2 3 4 5
5.	Trainees were required to use proper communication skills.	0 1 2 3 4 5
6.	Malfunctions were initiated properly.	0 1 2 3 4 5
7.	Simulator training time was used effectively.	0 1 2 3 4 5
8.	The instructor's console was operated correctly.	0 1 2 3 4 5
9.	Instructor displayed a positive attitude.	0 1 2 3 4 5

QUESTIONING TECHNIQUES

1.	Asked questions to determine what the student knew about the session topic.	0 1 2 3 4 5
2.	Asked questions that allowed the instructor to evaluate the student's progress.	0 1 2 3 4 5
3.	Handled incorrect responses appropriately.	0 1 2 3 4 5
4.	Asked questions to determine whether too much or too little information was being presented	0 1 2 3 4 5

INSTRUCTIONAL SKILLS

1.	Presentation was well organized.	0 1 2 3 4 5	
2.	The instructor demonstrated and exhibited good coaching/assisting techniques.	012345	

3.	The instructor used alternate approaches to enhance learning.	0 1 2 3 4 5	
4.	The instructor effectively used the "freeze" function to enhance learning.	0 1 2 3 4 5	
5.	The instructor achieved the session goals.	0 1 2 3 4 5	

TECHNICAL KNOWLEDGE

COMMENTS

(NOTE: This section to be evaluated by a subject matter expert.)

`		
1.	Focused presentation on level of learners' understanding.	0 1 2 3 4 5
2.	Emphasized operator professionalism.	0 1 2 3 4 5
3.	Demonstrated familiarity with facility procedures/reference material.	0 1 2 3 4 5
4.	Emphasized and reinforced team skills.	0 1 2 3 4 5
5.	Developed and emphasized diagnostic skills	0 1 2 3 4 5
6.	Exhibited a level of knowledge adequate to teach the training material.	0 1 2 3 4 5

CRITIQUE SKILLS

1.	Post-training critiques facilitate individual students to critique themselves.	0 1 2 3 4 5	
2.	Post-training critiques required the team to critique themselves.	0 1 2 3 4 5	
3.	The instructor summarized the simulator session.	0 1 2 3 4 5	

4.	Post-training critiques addressed:	
	 exercise-specific performance objectives 	0 1 2 3 4 5
	 generic performance objectives 	0 1 2 3 4 5
	 facility operating standards and practices 	0 1 2 3 4 5
5.	Critique resulted in operator commitment to reinforce positive performance.	0 1 2 3 4 5
6.	Critique resulted in performance needing improvement, being changed.	0 1 2 3 4 5

ADDITIONAL COMMENTS:

EXAMPLE 4 - Supervisor's Post-Training Feedback

Name:	Date:
Course/Program Title:	
Reviewed By:	Date:

This post-training evaluation is designed to obtain information that will maintain and improve the quality of our training programs. Based upon your observations of the trainee's job performance, rate the trainee on each of the listed tasks by circling the appropriate number.

REMEMBER: The rating should be based on performance of tasks that were trained on during the course or program.

EXPLANATION OF RATINGS

- 1. Unacceptable trainee performance: Trainee unable to perform task due to lack of knowledge and/or ability.
- 2. Poor trainee performance (partially competent): Trainee performed task with a marginal display of knowledge and/or ability.
- 3. Adequate trainee performance (competent): Trainee performed task with a sufficient display of knowledge and/or ability.
- 4. Very competent trainee performance: Trainee performed task with a good display of knowledge and/or ability.
- 5. Extremely competent trainee performance: Trainee performed task with an outstanding display of knowledge and/or ability.

TASK STATEMENT: Initiate a chemical item classification permit as the requestor.	1	2	3	4	5
TASK STATEMENT: Remove protective (anti-contamination) clothing.	1	2	3	4	5
TASK STATEMENT: Perform a locked, high-radiation area/exclusion area entry/exit.	1	2	3	4	5
TASK STATEMENT: Perform equipment/tool/area decontamination.	1	2	3	4	5

NOTE: This example shows only four task statements. An evaluation should be made for each application to determine the appropriate number of tasks.

EXAMPLE 5 - Trainee Post-Training Evaluation

Name:	Date:
Course/Program Title:	
Reviewed By:	Date:

INSTRUCTIONS: This post-training evaluation questionnaire is designed to obtain information that will maintain and improve the quality of our training programs. Based on what you now know about your job in relation to the training you received in this course, please rate the following performance objective/task statements by circling the appropriate number on the rating scales.

TASK STATEMENT: Conduct surveillance test of instrument isolation valves

1. Knowledge--Training provided knowledge of

N/A	1	2	3
Does not apply to my job	Parts, tools, equipment and simple facts used on the job	#1 plus the procedures used to complete the task	#1 and #2 plus the operating principles involved in performing the task

2. Performance--Training provided the skills needed to perform

N/A	1	2	3
	Simple parts of the		The task without
my job	task	supervision	supervision

3. Job Relatedness--Task trained on related to my job

N/A	1	2	3	4	5
Does not apply to my job	Applies very little to my job	Applies somewhat to my job	Applies to about half of my job	Applies to most of my job	Applies to all of my job

4. Job Preparedness--Level of task training prepared me for my job

N/A	1	2	3	4	5
Does not apply to my	•	Prepared me somewhat for	•	•	Prepared me to do all of my
job	my job	my job	of my job	my job	job

TASK STATEMENT: Calibrate and maintain source range monitor

1. Knowledge--Training provided knowledge of

N/A	1	2	3
Does not apply to my job	Parts, tools, equipment and simple facts used on the job	#1 plus the procedures used to complete the task	#1 and #2 plus the operating principles involved in performing the task

2. Performance--Training provided the skills needed to perform

N/A	1	2	3
Does not apply to my job	Simple parts of the task	The task with supervision	The task without supervision

3. Job Relatedness--Task trained on related to my job

N/A	1	2	3	4	5
Does not apply to my job	Applies very little to my job	Applies somewhat to my job	Applies to about half of my job	Applies to most of my job	Applies to all of my job

4. Job Preparedness--Level of task training prepared me for my job

N/A	1	2	3	4	5
Does not apply to my	very little for		for about half	to do most of	to do all of my
job	my job	my job	of my job	my job	job

TASK STATEMENT: Tag defective equipment/tools

N/A	1	2	3
Does not apply to my job	Parts, tools, equipment and simple facts used on the job	#1 plus the procedures used to complete the task	#1 and #2 plus the operating principles involved in performing the task

1. Knowledge--Training provided knowledge of

2. Performance--Training provided the skills needed to perform

N/A	1	2	3
Does not apply to my job	Simple parts of the task	The task with supervision	The task without supervision

3. Job Relatedness--Task trained on related to my job

N/A	1	2	3	4	5
Does not apply to my job	Applies very little to my job	Applies somewhat to my job	Applies to about half of my job	Applies to most of my job	Applies to all of my job

4. Job Preparedness--Level of task training prepared me for my job

N/A	1	2	3	4	5
Does not apply to my job	Prepared me very little for my job	•	•	•	Prepared me to do all of my job

TASK STATEMENT: Maintain fire detection systems

1. Knowledge--Training provided knowledge of

N/A	1	2	3
Does not apply to my job	Parts, tools, equipment and simple facts used on the job	#1 plus the procedures used to complete the task	#1 and #2 plus the operating principles involved in performing the task

2. Performance--Training provided the skills needed to perform

N/A	1	2	3
Does not apply to my job	Simple parts of the task	The task with supervision	The task without supervision

3. Job Relatedness--Task trained on related to my job

N/A	1	2	3	4	5
Does not apply to my job	Applies very little to my job	Applies somewhat to my job	Applies to about half of my job	Applies to most of my job	Applies to all of my job

4. Job Preparedness--Level of task training prepared me for my job

N/A	1	2	3	4	5
Does not apply to my job	•	Prepared me somewhat for my job	•	•	Prepared me to do all of my job

TASK STATEMENT: Perform wire wrapping

1. Knowledge--Training provided knowledge of

N/A	1	2	3
Does not apply to my job	Parts, tools, equipment and simple facts used on the job	#1 plus the procedures used to complete the task	#1 and #2 plus the operating principles involved in performing the task

2. Performance--Training provided the skills needed to perform

N/A	1	2	3
Does not apply to my job	Simple parts of the task	The task with supervision	The task without supervision

3. Job Relatedness--Task trained on related to my job

N/A	1	2	3	4	5
Does not apply to my job	Applies very little to my job	Applies somewhat to my job	Applies to about half of my job	Applies to most of my job	Applies to all of my job

4. Job Preparedness--Level of task training prepared me for my job

N/A	1	2	3	4	5
Does not apply to my job	•	Prepared me somewhat for my job	•	•	Prepared me to do all of my job

TASK STATEMENT: Test containment isolation

1. Knowledge--Training provided knowledge of

N/A	1	2	3
Does not apply to my job	Parts, tools, equipment and simple facts used on the job	#1 plus the procedures used to complete the task	#1 and #2 plus the operating principles involved in performing the task

2. Performance--Training provided the skills needed to perform

N/A	1	2	3
Does not apply to my job	Simple parts of the task	The task with supervision	The task without supervision

3. Job Relatedness--Task trained on related to my job

N/A	1	2	3	4	5
Does not apply to my job	Applies very little to my job	Applies somewhat to my job	Applies to about half of my job	Applies to most of my job	Applies to all of my job

N/A	1	2	3	4	5
Does not apply to my job	•	Prepared me somewhat for my job	•	•	Prepared me to do all of my job

4. Job Preparedness--Level of task training prepared me for my job

NOTE: This example shows six task statements. An evaluation should be made for each application to determine the appropriate number of tasks.

APPENDIX B - QUESTIONNAIRE FORMAT EXAMPLES

EXAMPLE 6 - Trainee Feedback Evaluation

Course/Program Title:		Date:
Name (Optional)	Instructor:	
Reviewed By:		Date:

Please rate the following statements using the following scale:

- 1 Strongly Disagree
- 2 Disagree
- 3 Neutral
- 4 Agree
- 5 Strongly Agree

1.	Time allotted to each unit of instruction was correct.	1	2	3	4	5
2.	Examples, analogies, and topics in training were relevant to your job needs.	1	2	3	4	5
3.	Training aids, audio-visuals, and handouts were current, accurate, and relevant to your job needs.	1	2	3	4	5
4.	As a result of attending the program or course, you are better prepared to perform your present duties.	1	2	3	4	5
5.	The classroom setting helped to promote learning.	1	2	3	4	5
6.	Facility specifics were taught where needed.	1	2	3	4	5
7.	The classroom training you received was beneficial to you in your understanding of facility operations.	1	2	3	4	5
8.	The information received in training was accurate and consistent with information received in the facility	1	2	3	4	5
9.	The material was appropriate for your perspective (participant position, responsibilities, interests, beginning knowledge level).	1	2	3	4	5
10.	Your questions were answered satisfactorily.	1	2	3	4	5
11.	Overall, the course/program was beneficial and will help me perform my job.	1	2	3	4	5

ADDITIONAL COMMENTS:

EXAMPLE 7 - End-of-Course Training Evaluation

Course/Program Title:		Date:
Instructor:	Trainee Job Title:	
Reviewed By:		Date:

We need your evaluation of the training that you have just completed. Please indicate your responses to the statements below by checking the appropriate box.

1.	PROGRAM CONTENT	Always	Almost Always	Some- times	Almost Never	Never	N/A
А	This training was relevant to my job						
В	The training was well organized						
С	The training objectives were clear to me						

2.	TRAINING MATERIAL	Always	Almost Always	Some- times	Almost Never	Never	N/A
А	The information provided in texts and handouts was adequate.						
В	The text and handout material were easy to use.						
С	The visual aids were of good quality.						

3.	INSTRUCTOR	Always	Almost Always	Some- times	Almost Never	Never	N/A
А	The instructor was knowledgeable about the course material.						
В	The instructor communicated the training information well.						
С	The instructor demonstrated enthusiasm for training and for the subject being taught.						

4.	TRAINING METHODS	Always	Almost Always	Some- times	Almost Never	Never	N/A
А	The lectures were well organized and provided informative discussion of training topics.						
В	Classroom discussion was encouraged.						
С	Classroom discussions were useful for clarifying ideas.						
D	There were an adequate number of practical applications.						
Е	Practical applications were useful for clarifying ideas.						
F	Enough time was spent on practical applications.						
G	Exams and quizzes were relevant to the training.						
Н	Exams and quizzes reinforced the training material.						

ADDITIONAL COMMENTS:

EXAMPLE 8 - Training Program Evaluation

Program:	Facility:	
Date(s) Conducted:		
Evaluators:		
Reviewed By:		Date:

In completing the step-by-step procedures of the program evaluation instrument, the evaluator(s) will be required to respond in various manners at each point in the process.

Both objective and subjective data will be collected. The evaluator(s) should realize that due to the diversity of the program, some steps may not be applicable. These steps should be cited. Examine the applicable training materials, and interview instructors, trainees, and trainees' supervisors to answer the following questions.

DEVELOPMENT

1. Does a written job analysis exist for this program? Cite examples.

2. Did training personnel and facility technical personnel participate in identifying training needs and developing training programs? Describe the process.

3. How was the job analysis used to provide the basis for making decisions regarding program content? If a training task list or matrix has been developed for this program, attach a copy.

4. Were trainee entry-level skills and knowledge given consideration when the program was developed? Discuss the considerations.

5. Has the program been compared with the applicable SAT guidelines, taxonomy, and/or task listing? Describe the process.

6. Has the program been compared with current facility procedures and other technical and professional references to identify training content and facility-specific information for use in developing training materials?

7. How were the suggested instructional methods or activities developed (job analysis, terminal performance objectives, enabling objectives, actual experience, test pilot, etc.)?

ON-THE-JOB-TRAINING

1. Is on-the-job training (OJT) delivered using well-organized and current materials? Include samples.

2. How are training materials kept current with respect to facility modifications and procedure changes? Cite examples.

3. Is OJT conducted by designated personnel who are instructed in program standards and methods? How are they instructed?

4. What are the required qualifications for in-facility evaluators?

5. Are the above qualifications appropriate for tasks being taught or evaluated?

6. What materials are provided for the trainee's OJT? Include samples.

7. Is the trainee provided an appropriate amount of time in which to learn tasks prior to evaluation?

8. What instructional aids are available to the trainee during the OJT process?

9. If a task cannot be performed, do the conditions of task performance in the simulator or walk-through reflect the actual task to the extent possible? Cite examples.

10. Are there established criteria for performance evaluations? Cite examples.

11. Do these criteria reflect actual job performance standards? Cite examples.

SIMULATOR TRAINING

1. Does the simulator hardware mimic that of the control room?

2. Do simulator responses emulate those of the facility?

3. Is the simulator configuration program effective?

4. Are appropriate procedures, references, etc., available and maintained current?

5. Are actual facility procedures and references utilized and adapted as appropriate for simulators?

6. Do simulator training materials provide a proper mix of normal, abnormal, and emergency exercises?

7. Do the training materials effectively incorporate facility and industry events?

8. Does the normal operational team participate together in simulator training?

9. Does management routinely observe and evaluate simulator training?

10. Are effective post-training critiques conducted?

11. Is feedback from trainees and management solicited and used to modify or improve the quality of the training?

12. Are training performance evaluations effectively used to enhance the training program?

13. Do exercises and scenarios effectively support established learning objectives?

14. Does the content of the training guides support the related classroom instruction?

15. Are simulator guides, including exercises and scenarios, based on sound operating principles?

16. Do simulator guides reflect the manner of conducting business established at this facility?

17. Are learning objectives specific to identified training needs of the facility?

18. Do exercises and instructors challenge trainees to perform to the best of their ability?

ADDITIONAL REMARKS:

APPENDIX C

EXAMPLE 9 - Instructor Observation Checklist

Lesson Title:	Date:
Instructor:	Length Of Observation:
Observed By:	Title:
Reviewed By:	Date:

Directions: Check Yes, No, or N/O (Not Observed)

1.	Advance Preparation	Yes	No	N/O
	The instructor was prepared for the training session	103		N/O
	Training materials were gathered and checked for accuracy, completeness, and legibility			
	Training aids and materials (i.e., tests, handouts, transparencies) were organized for effective and efficient use			
	Administrative materials (i.e., attendance sheets) were available			
	Training area was set up for effective instruction prior to training (i.e., lighting, seating, supplies, A/V equipment			
2.	Format of the Training Material	Yes	No	N/O
	The instructor demonstrated the ability to follow the lesson plan.		No	N/O
	An overview of the session was presented as a part of the introduction.			
	Training objectives were provided at the beginning of the class			
	Training content was presented according to the lesson plan			
	Instructor/trainee activities were implemented according to the plan.			
	The instructor demonstrated the ability to make instruction meaningful for the trainees.			
	Objectives were reinforced during the training.			
	Examples and/or analogies were used to apply the content to practical situations.			

	The instructor demonstrated the ability to focus the trainees' attention on the training content.	Yes	No	N/O
	The trainees were provided with an appropriate purpose or rationale for the training.			
	Interest in the topic was increased through use of reinforcement.			
	The relationship of the present session to previous training was identified.			
	The on-the-job significance of the training was emphasized.			
	The instructor demonstrated the ability to present the content and instructor/trainee activities in an organized, logical sequence.	Yes	No	N/O
	One teaching point and/or objective flowed to the next.			
	Trainees could follow the presentation without confusion.			
	"Nice to know" information was minimized.			
	Meaningful relationships between concepts and skills were clear.			
	Topics had natural beginning and ending points.			
3.	Technical Material Review (For Peer Evaluation) The instructor demonstrated appropriate technical competence to present the subject matter.	Yes	No	N/O
	Lesson content was accurate and current.			
	Knowledge was of appropriate depth.			
	Knowledge could be applied to the job as appropriate.			
4.	Applied Instructional Theory The instructor demonstrated the ability to involve trainees actively in the learning process (as opposed to constant lecture or watching a demonstration).	Yes	No	N/O
	Active trainee participation was encouraged.			
	Checks for understanding were made through questioning, performance, review quizzes, etc.			
	Training was adjusted according to trainee needs.			
	Allowances were made for "slower" and "faster" learners.			
	Behavior and trainee responses were reinforced in a positive manner.			
	Frequent and appropriate trainee responses were solicited.			

Asking subject-matter questions was encouraged.			
Trainees were given an opportunity to practice more than once (if needed).			
"Hands-on" practice was provided where possible.			
"Hands-on" practice emphasized critical steps and skills.			
The instructor summarized key points/information/task steps before progressing to the next objective.	Yes	No	N/O
The amount of information presented was appropriate for the trainees.			

ADDITIONAL COMMENTS:

EXAMPLE 10 - OJT Training Course Evaluation Form

Course Title:		Date:
Instructor:	Student:	
Observed By:	Title:	
Reviewed By:	Date:	

Check **Yes**, **No**, or Not Applicable (**N/A**) for each item on this evaluation form. At the discretion of the evaluator, additional amplifying comments may be included for individual items in the spaces provided on the form. A Not Applicable rating for any item should be considered to be entirely neutral and should not factor into the student's overall evaluation grade.

Individual items marked with ** are considered vital and must receive either a Yes or No rating (Not Applicable does not apply to these items).

PREPARATION

ITEM	YES	NO	N/A	COMMENTS
** Are the objectives clear and measurable and do they contain conditions, action, and a				
Is the instructor prepared to conduct the demonstration (e.g., all materials, prepared in advance, and in sufficient quantities)?				

INTRODUCTION

ITEM	YES	NO	N/A	COMMENTS
Did the instructor attempt to put the trainee at ease by using "small talk" during the Introduction?				
Did the instructor motivate the trainee by explaining the importance of learning this particular skill, e.g., "WIIFM" (What's In It For Me)?				

** Was the learning objective stated by the instructor and then discussed with the trainee to clear up any misunderstandings?		
Did the instructor attempt to find out the trainees's previous background in this particular task?		
Did the instructor explain the overall process that would be followed during the OJT lesson?		
Did the instructor tell the trainee what was going to be covered in the OJT lesson?		

EXPLANATION AND DEMONSTRATION

ITEM	YES	NO	N/A	COMMENTS
** Did the instructor use and follow the lesson plan developed for this demonstration?				
** Did the instructor use and follow the procedure developed for this demonstration?				
** Did the instructor explain and demonstrate the task to the trainee?				
** Was two-way communication between the instructor and the trainee evident?				
**Were proper safety precautions stressed and discussed as applicable?				
** Did the instructor use proper questioning techniques to ensure student comprehension?				

PRACTICE UNDER SUPERVISION

ITEM	YES	NO	N/A	COMMENTS
** Was the trainee allowed to practice the task sufficiently to gain the required skill?				
** Did the instructor ensure the trainee followed the procedure?				
Did the instructor ensure the trainee used proper techniques as applicable?				
**Were proper safety precautions stressed and discussed as applicable?				

CONCLUSION

ITEM	YES	NO	N/A	COMMENTS
Did the instructor clearly conclude the Training Phase prior to beginning the Evaluation Phase?				
** Did the instructor summarize/conclude the presentation by restating the major points?				
** Did the instructor restate the learning objective in the summary/conclusion?				

PERFORMANCE EVALUATION

ITEM	YES	NO	N/A	COMMENTS
** Did the instructor restate the learning objective?				
** Did the instructor clearly explain the ground rules (e.g., trainee will be on his own, no coaching, required performance standard)?				
Did the instructor review the Evaluation Document with the trainee prior to beginning the evaluation?				
Did the trainee perform the task without help or coaching from the instructor?				
** Did the instructor use the standards defined in the Evaluation Document to evaluate the trainee's performance?				
** Did the instructor ask pertinent questions during the task performance?				
** Did the instructor review the trainee's performance (using the criteria contained in the Evaluation Document) with the trainee immediately after the task was completed?				
Was the Pass/Fail status of the trainee's performance provided to the trainee immediately following completion of the task?				

As applicable, did the instructor encourage/motivate the trainee to practice or refine any noted weaknesses?		
Did the instructor document the training (e.g., sign the evaluation document)?		

OVERALL OJT TRAINING COURSE CONCLUSIONS

SATISFACTORY

NEEDS IMPROVEMENT (*)

OJT Course Instructor

Course Trainee

SPECIFIC COMMENTS

STRENGTHS	WEAKNESSES
	(*) Specify where improvement is needed

EXAMPLE 11 - Training Development Recommendation Checklist

ORIGINATOR: _____

NEW DEVELOPMENT:______REVISION: _____

- 1. Identify the problem/need:
- 2. Is the problem/need safety-related? Yes No
- 3. What job classification is affected?

4. What type of task is involved?

Normal operations
Maintenance and surveillance
Administrative
Abnormal
Emergency
Team building
Other:

5. How important is this situation?

Negligible
Undesirable
Serious
Severe
Extremely severe

6. Does the situation require urgent consideration? Yes No

7. How difficult is this task to perform?

Very easy
Somewhat easy
Moderately difficult
Very difficult
Extremely difficult

8. What is the frequency of this problem/need?

Rarely (about once a year)
Seldom (about 3 or 4 times a year)
Occasionally (about once a month)
Often (about once a week)
Very often (daily)

9. What is the source of the problem/need?

Lack of training
Insufficient training emphasis
Lack of practice during training
Incorrect training materials
Conflict between training and job requirements
Regulatory requirement
Not applicable

	10.	How can this recommendation	benefit facility o	perations?
--	-----	-----------------------------	--------------------	------------

-	
	Correct unsafe practices
	Improve facility availability
	Eliminate equipment misuse/damage
	Reduce reworks
	Reduce unscheduled maintenance
	Improve employee performance
	Accelerate qualification
	Avert anticipated problem
	Respond to regulatory/requirement/change
	Maintain job qualifications
	Avert anticipated problem Respond to regulatory/requirement/change

11. How do you suggest training be _ revised or __developed? (Attach a written description that describes the root cause of the problem and how it should be corrected.)

Date

FUNCTIONAL REVIEW

Disposition Action:

Approved _____ Approved with Modifications _____ Disapproved _____

Modifications and Comments (Note: approved with modifications and disapproved require comments):

Sign	ature,	Title
- 3.	,	

Date

TRAINING REVIEW

Disposition Action:

Approved _____Approved with Modifications _____ Disapproved _____Defer _____

Modifications and Comments (Note: approved with modifications, disapproved, and defer require comments):

Signature, Title

Date

EXAMPLE 12 - Training Material Request/Update

Course Title/Number:		Date:			
Instructor:	Location/Bldg:				
Your Name:	Employee Number:				
Department/Title:	Bldg/Room:				
Email:	Phone				
Reason for the Request:					
Work Authorized? Yes/No					
(circle one) C	ourse Coordinato	r Date			
Comments:					

Training Material Request Checklist					
Training Material	Document # or N/A	Date Required	Assigned To	Date Completed	
System Description					
Instructor/ Student Guide					
Student Handout					
Exam/Quiz					
Qualification Card/Guide					
Procedure					
Curriculum Outline					
Hierarchy					
Test Analysis Memo					
Exam Validation Matrix					
Training Appraisal Questionnaire					

Training Material Checklist Complete?

Instructor

Date

Completed Work Approval: Yes/No

(circle one) C

Course Coordinator

Date