

DRAFT

# TRAINING REVIEW CRITERIA AND PROCEDURES

21 June 1985

SUBJECT  
TO  
REVISION  
AFTER  
FIELD-  
TESTING

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PDR NUREG  
CR-4439

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## Notice of Review Package Modification to Accommodate NUREG/CR Format

This package was designed for use by NRC personnel engaged in the review of performance-based training programs in nuclear power plants. The actual review package includes split pages and tabs and is contained in a multi-ring binder to enable easy use.

In the actual review package, the pages on the right side contain the review questions, observations, checklists, and the scoring summary. These are the pages that are to be written on by the reviewer during each review and replaced for each new review. The pages on the left side contain the review and scoring guidance and are not replaced for each new review. Tabs are used in the original package to separate each section of the review as well as the Introduction, Appendices, and Glossary. Multi-colored pages are also used to facilitate the review.

The NRC staff decided to publish the package in NUREG/CR format to enable large-scale production and distribution of the document. In order to do so, it was necessary to impose another set of page numbers, remove the split paging, index tabs, and multi-color pages. This explains the unusual use of blank space in the document but should enable the user to follow the logical flow of the contents without difficulty.

# INTRODUCTION

## PURPOSE OF THESE PROCEDURES

The industry, through commitment to the INPO-managed Training Accreditation Program, is implementing what is referred to as performance-based training, or the Systems Approach to Training (SAT). The NRC considers the following five elements as essential to these training programs:

1. Systematic analysis of the jobs to be performed,
2. Learning objectives that are derived from the analysis and that describe desired performance after training,
3. Training design and implementation based on the learning objectives,
4. Evaluation of trainee mastery of the objectives during training,
5. Evaluation and revision of the training based on the performance of trained personnel in the job setting.

As indicated in the "Commission Policy Statement on Training and Qualifications of Nuclear Power Plant Personnel" of March 20, 1985, "the NRC will continue to closely monitor the process [INPO Accreditation] and its results." These procedures provide a systematic means for implementing two of the NRC monitoring functions identified in the Commission Policy Statement:

1. "Continuing evaluation of industrywide training and qualification program effectiveness," and
2. "Monitoring plant and industry trends and events involving personnel errors."



## **IMPLEMENTING THESE PROCEDURES**

These procedures are organized around the five essential elements of the SAT (or performance-based training) that are listed on the preceding page.

Discussed below are the ways in which the procedures can be implemented for each of the identified purposes:

### **CONTINUING EVALUATION OF INDUSTRYWIDE TRAINING AND QUALIFICATION PROGRAM EFFECTIVENESS**

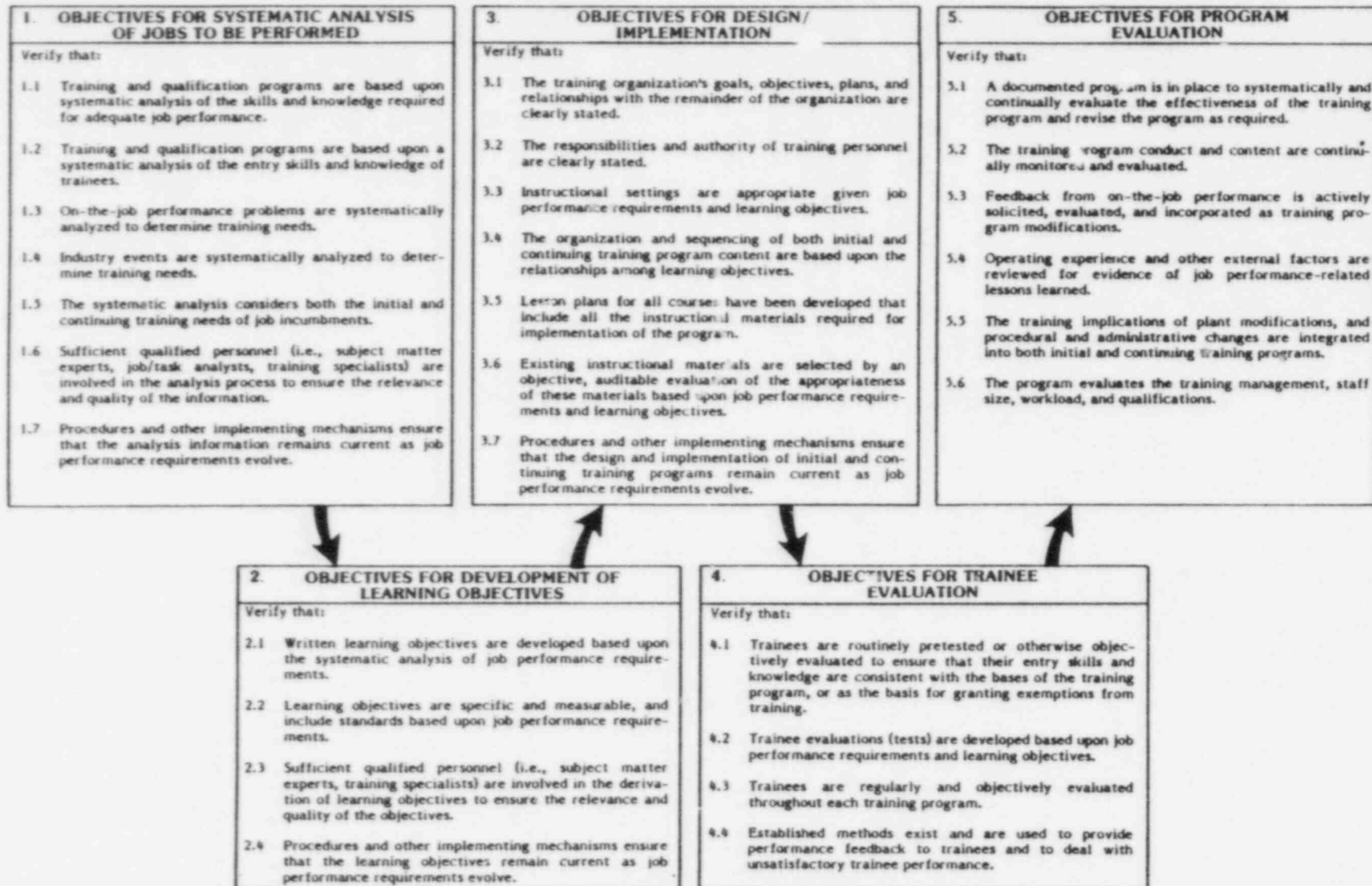
For these continuing evaluations of facility training programs, the review will proceed through these five essential elements in order. The objectives of such a review are shown on the following page.

It is anticipated that two experienced reviewers working for three days could complete such a review for one job/position. Reviews related to training for additional jobs/positions, if conducted at the same time, would require substantially less time. This is the case because a significant fraction of the review questions apply to all facility training programs, and thus the answer for one job/position will apply to other jobs/positions.

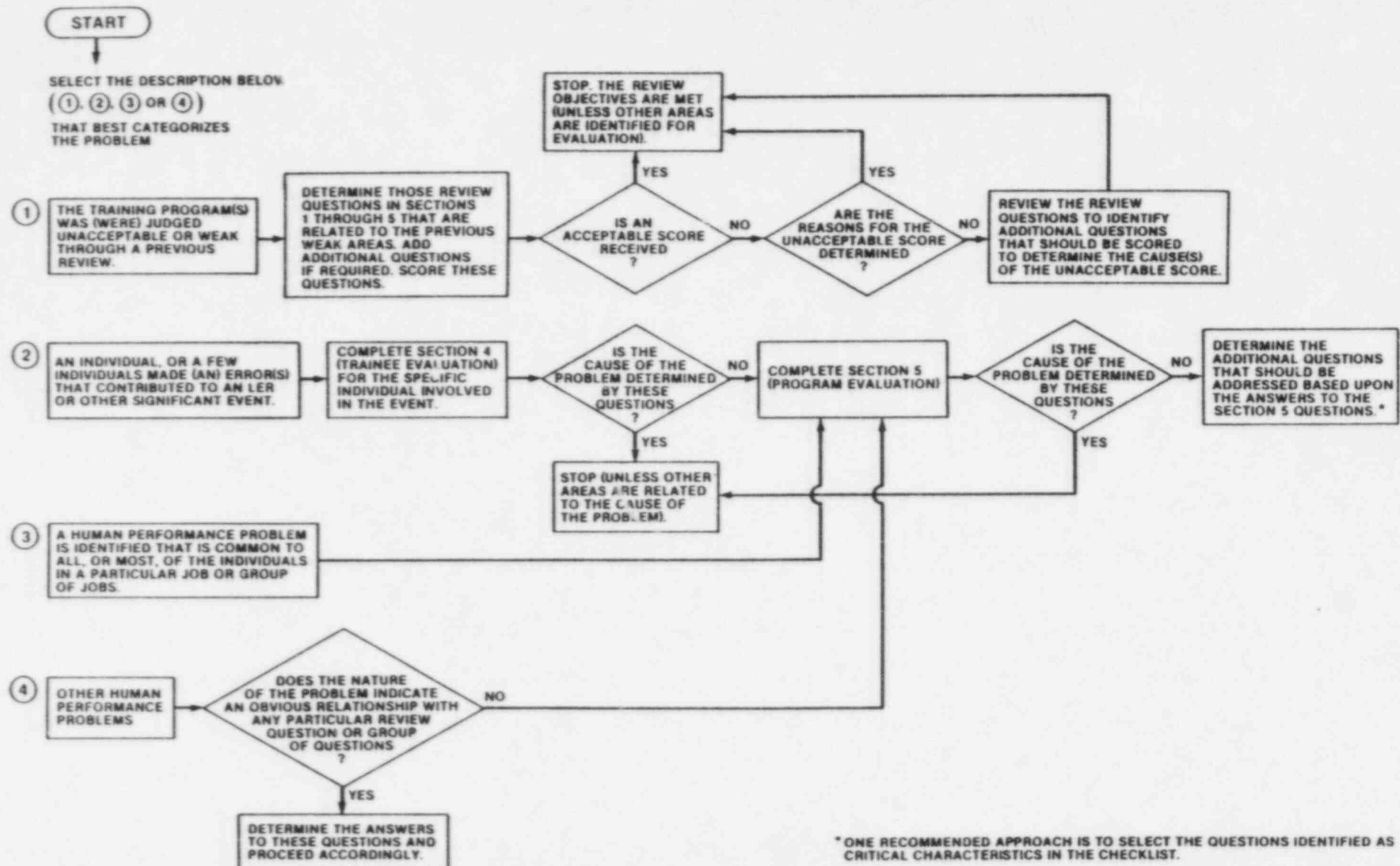
### **MONITORING PLANT AND INDUSTRY TRENDS AND EVENTS INVOLVING PERSONNEL ERRORS**

These procedures may also be used to evaluate facility training programs where a particular human performance problem has been identified or is suspected, and a determination is to be made concerning related training programs. Each of these reviews is likely to be unique in some respects, but in many cases it may not be necessary to answer all the review questions to determine whether there is a training-related problem and to diagnose its cause. The flowchart on page 4 provides a means for determining an efficient way to use these procedures based upon the characteristics of the problem.

## REVIEW OBJECTIVES



## USE OF THESE PROCEDURES FOR MONITORING EVENTS INVOLVING PERSONNEL ERRORS



## PREPARATIONS FOR THE REVIEW

1. It is recommended that the facility be notified well in advance of the review, indicating the program(s) that will be reviewed, and that the facility be requested to assemble:
  - o Instructions/Procedures related to:
    - Systematic methods used to analyze jobs,
    - Training organization goals, objectives, and plans,
    - Responsibilities/authority of training organization personnel,
    - Methods for evaluating/selecting instructional materials, methods, and media,
    - Methods for organizing/sequencing of training,
    - Methods for keeping training programs current,
    - Maintenance of training records,
    - Selection of candidates for training and the granting of waivers/exemptions from training,
    - Evaluation of training programs, and
    - Training, qualification, and evaluation of instructors
  - o Task lists for the job(s) being reviewed
  - o Documentation related to:
    - Development/validation of task lists,
    - Selection of tasks for formal training,
    - Analysis of tasks,
    - Analysis of on-the-job performance problems and industry events, and
    - Evaluations/audits of the training program(s)
  - o Roster/organization chart for the training organization
  - o Training schedule for the past six months and the next six months.
2. The facility should be requested to provide a dedicated individual to interface with the review team. This individual should be knowledgeable of the program(s) being evaluated and know where/how to find information requested by the reviewers. Ideally, this would be the person coordinating the facility's efforts toward INPO accreditation.
3. Prospective members of the review team should review the results of previous inspections of this facility's training programs, and LER's within the last two years.

## PREPARATIONS FOR THE REVIEW (Cont'd)

4. The questions in Sections 1 through 5 should be reviewed and then the five examples that follow this page should be studied as aids in completing scoring the checklists. The following points are emphasized:
  - While a three-point scale is used for scoring (as in SALP inspections), the scores have different meanings than SALP scores. The scores for this review are on an absolute scale (2 is the minimum acceptable score), while SALP scores are on a relative scale (below average, average, above average). Also, 1 is the highest score for SALP, while it is the lowest score for this review.
  - During the transition period to performance-based training, in situations where the facility has not yet completed the changes required to achieve a score of 2, but where actions are in progress that will apparently lead to this score, it may be judged appropriate to use a score of "2T" where the "T" indicates a transition situation. Such an example is shown on page 10.
5. It is appropriate to assign one reviewer to each training program. For those questions that involve more than one program (e.g., those related to training program plans), the reviewers should compare their scores. If the questions are assigned different scores, the scoring criteria should be reviewed by both reviewers to resolve the difference (it may be appropriate to have different scores for these questions for different programs based upon the manner in which the plans are implemented for the different training programs).

## How To Select Tasks for the Review

Once the documentation has been assembled, use it to select three to six tasks from the task list for each job being evaluated. These tasks and information related to them will be used to aid in answering questions with respect to each of the five elements of this evaluation (Sections 1 through 5). The following are the criteria to be used in selecting these tasks:

1. All tasks should be among those selected for formal training.
2. At least one of the tasks should be among those selected for continuing training.
3. At least one of the tasks should be among those selected for formal OJT.
4. At least one of the tasks should be among those selected for training using a simulation device (if such a device is used for training for this job).
5. At least one of the tasks should be from the emergency/abnormal operations area (if applicable to the job).

Write the names of tasks selected for the review in the appropriate spaces on page I-2R, along with any number or other designation assigned to the tasks by the facility. Also, in the appropriate spaces on page I-2R, indicate those tasks that meet each of the five criteria above.

## TASKS SELECTED FOR THE REVIEW

JOB Health Physics Tech. FACILITY Green Mountain 1

1. Perform a temporary shielding survey  
(Task 6.5 on the task list for this job)
2. Perform stay time calculations  
(Task 8.2)
3. Decontaminate personnel (Task 11.2)
4. Perform as a re-entry team member  
(post accident) (Task 12.5)
5. Analyze post-accident samples (Task 12.8)

EXAMPLE

- ONLY
- ☒ All tasks are among those selected for formal training.
  - ☒ List the number(s) of the task(s) above that were selected for continuing training. 3, 4, 5
  - ☒ List the numbers of the task(s) above that were selected for formal OJT. 1, 2
  - ☒ List the number(s) of the task(s) above that were selected for training using a simulation device. 3, 5
  - ☒ List the number(s) of the task(s) above that are from the emergency/abnormal operations area (if applicable to the job). 4, 5



## REVIEW GUIDANCE

### 1.1\* Was a systematic method used for identifying the tasks that make up the job(s) being evaluated?

A method or procedure is considered to be systematic if it possesses the following characteristics:

- o Consists of a logically ordered set of steps,
- o Is clearly documented so that it can be executed with consistent results on different occasions by different personnel,
- o Requires a physical record (e.g., signature) of external review/approval for historical accountability, and
- o Results in a consistently formatted, quality product (where applicable).

A task is a unit of work that describes the performance of a complete meaningful function in a job. An example of a task for the health physics (radiation protection) technician job is:

"Perform pre-Radiation Work Permit (RWP) surveys."

Note that the comments and the score of ② are consistent with this guidance.

## SCORING GUIDANCE

Score this question as a:

- ① if there is no task list, or if the task list is an industry-wide task list or a task list developed for another facility that is used for this facility without review or validation, or if there are no implementing procedures/instructions that describe the process for developing/validating the task list.
- ② if a plant-specific task list has been produced based upon a documented systematic method.
- ③ if a plant-specific task list has been developed that includes all of these characteristics:
  - o Involvement in the process by experienced training professionals and job incumbents, and
  - o Validation of the initial task list by two or more job incumbents through interview, survey, or a group review meeting, and
  - o Approval of the task list by managers/supervisors of subject matter and training personnel.

## REVIEW REQUIREMENTS

### 1.1\* Was a systematic method used for identifying the tasks that make up the job(s) being evaluated?

COMMENTS: A group review of an industry-wide task list was conducted. The group was made up of 3 job incumbents and the HP trainer. Plant-specific tasks were added to the industry-wide task list. Documentation of this review is included in the facility's October 1984 HP training development file.

### 1.2\* Was a systematic method used for selecting tasks for which training will be provided?

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

1 NOT AT ALL  
 2 GENERALLY  
 3 COMPLETELY

1 2 3

EXAMPLE ONLY

\* Indicates that this is a critical characteristic of the training program. A score of ① for this question indicates that the training program is "unacceptable" overall.

### REVIEW GUIDANCE

#### 2.1\* Is there a learning objective for each of the tasks selected for evaluation?

A learning objective describes precisely what is to be learned in terms of the expected trainee performance under specified conditions to accepted standards. These learning objectives are often referred to as terminal learning objectives, and are easy to identify because they are similar to the task statements. An example of a terminal learning objective for a mechanical technician job is:

"Given the disassembled parts of a service water pump, proper tools, and the approved procedure, reassemble the pump in accordance with the steps of the approved procedure."

It is not necessary to consider the quality of the learning objectives at this point. Subsequent questions will address the quality of the objectives.

### SCORING GUIDANCE

For the three to six tasks selected for this inspection score this question as:

- ① if there are no learning objectives for these tasks.
- ② if there are learning objectives for those tasks:
  - o Selected for initial training,
  - o Related to emergency/abnormal operations.
- ③ if there are learning objectives for all tasks selected for this review.

### REVIEW REQUIREMENTS

#### 2.1\* Is there a learning objective for each of the tasks selected for evaluation?

COMMENTS: These learning objectives,  
cross-referenced to the associated task,  
are provided in "Notebook 5"  
dated October 15, 1984.

#### 2.2 For each of the learning objectives in Question 2.1, are there associated learning objectives related to the skills and knowledge that enable the trainee to perform the tasks?

COMMENTS: \_\_\_\_\_

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

1 2 3

EXAMPLE ONLY

\* Indicates that this is a critical characteristic of the training program. A score of 1 for this question indicates that the training program is "unacceptable" overall.



### REVIEW GUIDANCE

- 3.1\* Is there a written plan that clearly and specifically states the training organization's goals, objectives, and plans, and relationships with other parts of the facility's organization?

This question is scored as "2" rather than "1" because the facility has plans to meet the intent of the question.

### SCORING GUIDANCE

Score this question as:

- ① if there is no written plan, or if goals, objectives, and plans are stated only in general ways that do not permit objective evaluation of their success.
- ② if there is a written plan that addresses, as a minimum, the training organization's goals and plans and some objective evaluation of the achievement of these goals and plans is possible.
- ③ if there is a written plan that addresses the training organization's goals, objectives, and plans and relationships with other parts of the organization in clear and specific terms that permit an objective evaluation of their success.

### REVIEW REQUIREMENTS

- 3.1\* Is there a written plan that clearly and specifically states the training organization's goals, objectives, and plans, and relationships with other parts of the facility's organization?

COMMENTS: The training manager provided a schedule which indicated that such a plan is to be developed within the next 6 months.

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

- 3.2 Are these goals, objectives, and plans maintained current and used as the basis for periodic evaluation of the training organization's performance?

1 2 3

COMMENTS:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\* Indicates that this is a critical characteristic of the training program. A score of ① for this question indicates that the training program is "unacceptable" overall.

### REVIEW GUIDANCE

- 4.1 Before beginning an initial training program, are candidates for the training program routinely tested or otherwise objectively evaluated based upon assumed entry-level skills and knowledge?

When administered to all candidates for training, pretest results can be used to:

- o Confirm individual candidate qualifications for entering the training program,
- o Identify remedial training requirements for candidates who do not meet the entry-level requirements, and
- o Provide a basis for exempting candidates from all or part of the training program.

Listing the specific information used in scoring the question may be helpful in summarizing the results or responding to facility questions about the basis for the score assigned.

### SCORING GUIDANCE

Score this question as a:

- ① if there is no evidence that candidates for training are routinely tested or otherwise objectively evaluated during the selection process.
- ② if documentation is available to demonstrate that candidates for the training program(s) are routinely tested or otherwise objectively evaluated based upon the assumed entry-level skills and knowledge.
- ③ if the requirements for a score of ② are met, and an aptitude battery is used that either is job specific or is a general aptitude battery that has been validated for use for the specific job.

### REVIEW REQUIREMENTS

- 4.1 Before beginning an initial training program, are candidates for the training program routinely tested or otherwise objectively evaluated based upon assumed entry-level skills and knowledge?

COMMENTS: Job-specific test items were used as the basis for a placement test that is administered to all candidates for the training program (see Training Dept. Instruction 5.6)

- 4.2 Are exemptions from training only permitted based upon performance-based testing or other objective evaluation methods?

COMMENTS:

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

### REVIEW GUIDANCE

- 5.1\* Is there a documented program in place to systematically evaluate the effectiveness of training programs and to revise the programs as required?

This item addresses only whether a documented evaluation program exists. Subsequent questions deal with the specifics of the evaluation program.

Note that the score, comments, and scoring guidance are consistent.

### SCORING GUIDANCE

Score this question as a:

- ① if no documented evaluation program exists.
- ② if an approved, documented evaluation program is in place.
- ③ if the requirements for a score of ② are met and there is evidence that the program is periodically evaluated and revised (if required).

### REVIEW REQUIREMENTS

- 5.1\* Is there a documented program in place to systematically evaluate the effectiveness of training programs and to revise the programs as required?

COMMENTS: The program was reviewed within the last six months (see file 10.42) and a spot check of lesson 10.5 indicated that the review findings had been implemented

- 5.2 Is the program evaluated through a systematic analysis of aggregate trainee test performance?

COMMENTS:

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

1 2 3

EXAMPLE ONLY

\* Indicates that this is a critical characteristic of the training program. A score of ① for this question indicates that the training program is "unacceptable" overall.

## **REVIEW QUESTIONS**

SECTION 1 --  
SYSTEMATIC ANALYSIS OF JOBS TO BE PERFORMED

Obtain the Following Documentations:

- o Instructions/procedures that describe the facility's analysis methods,
- o Task lists/inventories for the job(s) of interest,
- o Documentation related to the development/validation of the task lists(s)
- o Documentation related to the selection of tasks for formal training (initial and continuing),
- o Documentation related to the analysis of tasks to determine conditions and standards of performance, and enabling skills and knowledge,
- o Documentation related to the analysis of on-the-job performance problems and industry events, and
- o Documentation related to the selection of instructional methods and media.

I-1L

SECTION 1 --  
SYSTEMATIC ANALYSIS OF JOBS TO BE PERFORMED

List of Documentation Obtained

- ☐ Instructions/procedures that describe the facility's analysis methods,
- ☐ Task lists/inventories for the job(s) of interest,
- ☐ Documentation related to the development/validation of the task list(s)
- ☐ Documentation related to the selection of tasks for formal training (initial and continuing),
- ☐ Documentation related to the analysis of tasks to determine conditions and standards of performance, and enabling skills and knowledge,
- ☐ Documentation related to the analysis of on-the-job performance problems and industry events, and
- ☐ Documentation related to the selection of instructional methods and media.

I-1R

### How To Select Tasks for the Review

Once the documentation has been assembled, use it to select three to six tasks from the task list for each job being evaluated. These tasks and information related to them will be used to aid in answering questions with respect to each of the five elements of this evaluation (Sections 1 through 5). The following are the criteria to be used in selecting these tasks:

1. All tasks should be among those selected for formal training.
2. At least one of the tasks should be among those selected for continuing training.
3. At least one of the tasks should be among those selected for formal OJT.
4. At least one of the tasks should be among those selected for training using a simulation device (if such a device is used for training for this job).
5. At least one of the tasks should be from the emergency/abnormal operations area (if applicable to the job).

Write the names of tasks selected for the review in the appropriate spaces on page I-2R, along with any number or other designation assigned to the tasks by the facility. Also, in the appropriate spaces on page I-2R, indicate those tasks that meet each of the five criteria above.

### TASKS SELECTED FOR THE REVIEW

JOB	FACILITY
1.	
2.	
3.	
4.	
5.	
6.	

- ☐ All tasks are among those selected for formal training.
- ☐ List the number(s) of the task(s) above that were selected for continuing training. \_\_\_\_\_
- ☐ List the numbers of the task(s) above that were selected for formal OJT. \_\_\_\_\_
- ☐ List the number(s) of the task(s) above that were selected for training using a simulation device. \_\_\_\_\_
- ☐ List the number(s) of the task(s) above that are from the emergency/abnormal operations area (if applicable to the job). \_\_\_\_\_

### REVIEW GUIDANCE

1.1\* Was a systematic method used for identifying the tasks that make up the job(s) being evaluated?

A method or procedure is considered to be systematic if it possesses the following characteristics:

- o Consists of a logically ordered set of steps,
- o Is clearly documented so that it can be executed with consistent results on different occasions by different personnel,
- o Requires a physical record (e.g., signature) of external review/approval for historical accountability, and
- o Results in a consistently formatted, quality product (where applicable).

A task is a unit of work that describes the performance of a complete meaningful function in a job. An example of a task for the health physics (radiation protection) technician job is:

"Perform pre-Radiation Work Permit (RWP) surveys."

### REVIEW REQUIREMENTS

1.1\* Was a systematic method used for identifying the tasks that make up the job(s) being evaluated?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### SCORING GUIDANCE

Score this question as a:

- ① if there is no task list, or if the task list is an industry-wide task list or a task list developed for another facility that is used for this facility without review or validation, or  
if there are no implementing procedures/instructions that describe the process for developing/validating the task list.
- ② if a plant-specific task list has been produced based upon a documented systematic method.
- ③ if a plant-specific task list has been developed that includes all of these characteristics.
  - o Involvement in the process by experienced training professionals and job incumbents, and
  - o Validation of the initial task list by two or more job incumbents through interview, survey, or a group review meeting, and
  - o Approval of the task list by managers/supervisors of subject matter and training personnel.

\* Indicates that this is a critical characteristic of the training program. A score of ① for this question indicates that the training program is "unacceptable" overall.

### REVIEW GUIDANCE

#### 1.2\* Was a systematic method used for selecting tasks for which training will be provided?

To systematically select tasks for formal training, there must a basis for selections. The following are criteria that are generally used as the basis for selecting tasks for training:

- o Percent of job incumbents who perform the task,
- o Percent of time spent performing the task,
- o Consequences of inadequate performance,
- o Frequency of task performance,
- o Task learning difficulty (or task performance difficulty),
- o Time between job entry and task performance, and
- o Entry-level skills and knowledge (e.g., job tasks performed in previous jobs).

Information concerning these criteria should be collected in an objective, reliable way and should be obtained from individuals who are familiar with the particular job being analyzed. Threshold values for task selection decisions should be established by qualified training specialists.

### REVIEW REQUIREMENTS

#### 1.2\* Was a systematic method used for selecting tasks for which training will be provided?

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

NOT AT ALL  
 GENERALLY  
 COMPLETELY  
 1 2 3

### SCORING GUIDANCE

#### Score this question as a:

- ① if no systematic basis is identified for selecting tasks for initial training, or if the requirements for a score of ② are not met.
- ② if the basis for selection includes consequences of inadequate performance and involvement of job incumbents in the selection process is documented.
- ③ if the requirements for a score of ② are met and a generally accepted method for collecting the information (e.g., survey, interview, group consensus meeting) is implemented in such a way that a representative sample of job incumbents' opinions are objectively and reliably identified and interpreted.

\* Indicates that this is a critical characteristic of the training program. A score of ① for this question indicates that the training program is "unacceptable" overall.



### REVIEW GUIDANCE

1.3\* Does the selection method distinguish between tasks requiring initial training only and those requiring continuing training as well?

In general, the following three criteria are used in selecting tasks for continuing training (in addition to the criteria used to select tasks for initial training):

1. Consequences of inadequate performance,
  2. Frequency of task performance, and
  3. Decay in task performance with time.
- o Consequences of Inadequate Performance. Those tasks whose performance is so critical that particular attention must be paid to ensuring adequate performance.
- o Frequency of Performance. The subset of tasks selected for initial training for which proficiency is not maintained through on-the-job performance (e.g., tasks that are performed infrequently).
- o Decay in Task Performance over Time. Those tasks that require periodic practice to maintain proficiency (particularly tasks requiring coordinated psychomotor skills).

### SCORING GUIDANCE

Score this question as a:

- ① if no systematic basis is identified for selecting tasks for continuing training, or if the requirements for a score of ② are not met.
- ② if consequences of inadequate performance and either frequency of performance or time decay are considered in selecting tasks for continuing training and involvement of job incumbents in the task selection process is documented.
- ③ if the requirements for a score of ② are met and a generally accepted method for collecting the information (e.g., survey, interview, group consensus meeting) is implemented in such a way that a representative sample of job incumbents' opinions concerning the tasks to be selected are objectively and reliably identified and interpreted.

### REVIEW REQUIREMENTS

1.3\* Does the selection method distinguish between tasks requiring initial training only and those requiring continuing training as well?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\* Indicates that this is a critical characteristic of the training program. A score of ① for this question indicates that the training program is "unacceptable" overall.

### REVIEW GUIDANCE

- 1.4\* Was a systematic method used for identifying the cues, conditions, and standards of performance for the tasks selected for formal training?

A cue is the event that determines, in the job situation, when the job incumbent performs a particular task (i.e., "when the tank high level alarm is activated"). Conditions are the on-the-job conditions that significantly influence performance of a task (i.e., "given that the reactor coolant system is at normal operating temperature and pressure"). Standards describe the criteria or standards of performance of a task that separate "acceptable" from "unacceptable" job performance (i.e., "tank level must be maintained between high and low level trip set points").

Cues, conditions, and standards are necessary because they strongly influence decisions about training. For example, consider a task that requires attaching cables to various items so that they can be lifted. Knowing that the task is performed under conditions where the job incumbent is required to wear anti-contamination clothing and respirators (e.g., exposure to surface and airborne contamination) is likely to influence both how and where the task is trained. Knowing that the standards of performance require torquing the retaining lugs to 200± 20 ft-lbs provides information concerning enabling skills and knowledge to perform the task.

### SCORING GUIDANCE

For the three to six tasks selected for this inspection, score this question as a:

- ① if no cues, conditions, or standards have been identified for these tasks, or if the requirements for a score of ② are not met.
- ② if:
  - o A procedure for collecting information concerning cues, conditions, and standards exists and
  - o Most of the cues, conditions, and standards are specific and measurable and
  - o There is evidence of involvement in the process by job incumbents.
- ③ if:
  - o The requirements for a score of ② are met and
  - o All cues, conditions, and standards are specific and measurable and
  - o It is evident that job incumbents have contributed to both the development and the review of this information.

### REVIEW REQUIREMENTS

- 1.4\* Was a systematic method used for identifying the cues, conditions and standards of performance for the tasks selected for formal training?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\* Indicates that this is a critical characteristic of the training program. A score of ① for this question indicates that the training program is "unacceptable" overall.

### REVIEW GUIDANCE

- 1.5 Was a systematic method used for identifying the skills and knowledge that enable the job incumbent to adequately perform the tasks selected for formal training?

The process of identifying the skills and knowledge that are necessary for a job incumbent to adequately perform assigned tasks is often referred to as task analysis. Shown on the blue pages at the end of Section I (pages I-13L through I-18L) is an example of the skills and knowledge and related information collected through a comprehensive task analysis (the process shown is similar to INPO's task analysis approach). Note particularly that skills and knowledge are identified by first dividing the task into elements or steps and then determining the skills and knowledge required for each element/step. This illustrates one of the basic tenets of task analysis: if a job is divided into small enough "pieces," then specific and complete information can be determined about the skills and knowledge, and cues, conditions, and standards of job performance (e.g., a statement such as "knowledge of basic mathematics" without additional detail would be unacceptable while "use of a handheld calculator to calculate the volume of a cylinder" would be acceptable).

### SCORING GUIDANCE

Review the task analysis information developed for the three to six tasks selected for this review.

#### Score this question as:

- ① if skills and knowledge have not been identified, or if the results of a generic task analysis or a task analysis performed for a different facility have been used without reviewing/modifying the information to determine its applicability to this specific facility.
- ② if the skills and knowledge are identified based upon tasks as they are performed for this particular job (through review of generic task analysis data for its applicability or facility-specific analysis), and the skills and knowledge are specific enough to support the design of training, and job incumbents or individuals with equivalent knowledge of the job provided the information or reviewed existing information for accuracy/realism.
- ③ if the requirements for a score of 2 are met and the skills and knowledge are at a level of detail similar to those shown in the example task analysis data collection form on the following pages.

I-7L

### REVIEW REQUIREMENTS

- 1.5 Was a systematic method used for identifying the skills and knowledge that enable the job incumbent to adequately perform the tasks selected for formal training?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

I-7R

### REVIEW GUIDANCE

#### 1.6\* Was a systematic analysis of entry-level skills and knowledge conducted?

Such a systematic analysis may include assumptions about the skills and knowledge associated with a particular level of education (e.g., a high school graduate) and then requiring the task analysis to identify those additional skills and knowledge, beyond that level of education, required for adequate job performance.

Once skills and knowledge are identified, these two alternatives are available to ensure that job incumbents possess them.

- a) Select individuals who already possess these skills and knowledge or
- b) Train the individuals selected for the job in these skills and knowledge.

If alternative a) was used, then these skills and knowledge should become part of the selection criteria for candidates. For example, an identified skill might be "ability to plot data on a log-log graph." If a decision was made not to include this skill in the training program, then the skill should be included in the basis for selecting candidates for the training (i.e., either in a selection test or objective review of previous experience).

If alternative b) was used, these skills and knowledge should be included in the training program.

### SCORING GUIDANCE

#### Score this question as a:

- ① if there is no evidence that entry skills and knowledge (derived from task analysis or assumed as the baseline for the analysis) are identified.
- ② if the selection of individuals for a job is based on a job candidate's known fulfillment of a stated prerequisite from a regulation, regulatory guide, industry standard for selection, or an educational prerequisite that clearly covers job qualifications, but specific identification of entry-level skill and knowledge is not conducted (e.g., use of ANSI/ANS-3.1 or a similar document). Specific analysis of entry-level skills can be ascertained by using several methods, but all are based on direct examination of the entry population.
- ③ if entry-level skills and knowledge are specifically identified as the baseline for task analysis or through task analysis. (NOTE: Checklist Question 4.1 addresses the testing of trainees based upon these skills and knowledge.)

### REVIEW REQUIREMENTS

#### 1.6\* Was a systematic analysis of entry-level skills and knowledge conducted?

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

\* Indicates that this is a critical characteristic of the training program. A score of ① for this question indicates that the training program is "unacceptable" overall.

#### REVIEW GUIDANCE

1.7 Was a systematic method used to analyze on-the-job performance problems to determine training needs?

An analysis of on-the-job performance problems should be based on a systematic method of collecting the necessary information, from sources such as:

- o LER's,
- o Industrial accident reports, and
- o Plant events, resulting from personnel errors, not requiring LER's (i.e., equipment damage, unscheduled maintenance, outage extensions).

Much of this information may be available in written reports; however, often there is a reluctance to document personnel errors because of concern about the effect on the individual. For this reason, there is often a need to supplement the information in written reports with interviews of supervisors and engineers.

In analyzing the information for training implications, two common problems arise:

- o The general assumption is made that additional training is the solution to all personnel errors. The analysis should consider other potential solutions also, e.g., procedure changes, work design/workloads, equipment design changes, and level of supervision.
- o The root causes of human performance problems are not identified. For example, a pattern of corrective actions that state, "remedial training was provided to the individual(s) involved," may be indicative that only a cursory analysis of the cause of the problem has been performed.

#### SCORING GUIDANCE

Score this question as a:

- ① if no analysis of on-the-job performance problems within the plant has been conducted, or  
if the requirements for a score of 2 are not met.
- ② if there are indications that at least two of the sources above have been used to analyze on-the-job performance problems within the plant, and  
that there is a general intent to incorporate such information into the program.
- ③ if a comprehensive analysis has been conducted of LER's, industrial accident reports, and other plant events resulting from personnel errors, and  
there is evidence that the causes of the problems have been addressed in the plant training program (or procedures, etc.) as appropriate.

#### REVIEW REQUIREMENTS

1.7 Was a systematic method used to analyze on-the-job performance problems to determine training needs?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### REVIEW GUIDANCE

**1.8** Was a systematic method used to analyze industry events to determine appropriate plant training needs?

An evaluation and screening of industry events that may be applicable to the facility and subsequent incorporation of applicable experience into training programs is a necessary component of systematic analysis.

INPO has implemented the Significant Event Evaluation and Information Network (SEE-IN) for operating experience review. A satisfactory means for meeting this requirement would be a systematic method for facility-specific review of INPO Operations and Maintenance Reminders, SER's and Significant Operating Experience Reports, and incorporation of applicable recommendations.

### REVIEW REQUIREMENTS

**1.8** Was a systematic method used to analyze industry events to determine appropriate plant training needs?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### SCORING GUIDANCE

Score this question as a:

- ① if no facility-specific method for analysis of industry events has been implemented, or if the requirements for a score of 2 are not met.
- ② if there are indications that a facility-specific review of the INPO SEE-IN Program or an equivalent program has been implemented, and applicable recommendations with respect to training are implemented and documented.
- ③ if the requirements for a score of 2 are met and there is evidence that the root causes of the problems have been addressed in the training program (or procedures, etc.) as appropriate.



#### REVIEW GUIDANCE

- 1.9 Were sufficient qualified personnel (i.e., subject matter experts, job/task analysts, training development specialists) involved in the performance of the analysis described in Questions 1.1 through 1.8 to ensure the relevance and quality of the information?

#### REVIEW REQUIREMENTS

- 1.9 Were sufficient qualified personnel (i.e., subject matter experts, job/task analysts, training development specialists) involved in the activities described in Questions 1.1 through 1.8 to ensure the relevance and quality of the information?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

#### SCORING GUIDANCE

Score this question as a:

- ① if no subject matter experts and training specialists were involved in the performance of the analysis described in Questions 1.1 through 1.8, or the requirements for a score of ② are not met.
- ② if both subject and training specialist personnel were involved in the performance of the analysis to the minimum extent required to ensure the relevance and quality of the information collected.
- ③ if it is clearly documented that qualified subject matter and training specialist personnel were involved in the performance of analysis described in Questions 1.1 through 1.8 and that sufficient numbers of these qualified personnel were involved to ensure the relevance and quality of the information.

### REVIEW GUIDANCE

- 1.10 Are approved procedures properly implemented to maintain the information in Questions 1.1 through 1.8 current as job performance requirements evolve?

Job performance requirements may change over time for a variety of reasons, such as:

- o Backfits/modifications of plant equipment,
- o Changes in plant operating or administrative procedures,
- o Lessons learned through operating experience, and
- o Reorganization or changes in job responsibilities.

If training is to remain performance based, then the impact of these changes must be analyzed and the training program revised, as required. Procedures for accomplishing this should be in the facility's training plan, administrative procedures or related documentation.

Identify a backfit/plant modification or procedure change that has been implemented during the past three to six months.\* Determine whether the actions specified in the modification or procedure change related to updating training requirements have been implemented.

\* If a time frame for review is specified in the approved procedure, use that instead of the three to six months specified above.

### SCORING GUIDANCE

Score this question as a:

- ① if there are no approved procedures in place, or  
if the procedures were not properly implemented.
- ② if procedures are in place that require job performance requirements to be updated as a result of:
  - o Backfits/modifications of plant equipment,
  - o Changes in procedures,
  - o Operating experience, and
  - o Reorganization or job changes and

the procedure has been followed to the extent required to ensure that job performance requirements are generally met.
- ③ if approved procedures are in place to require that all the information in Questions 1.1 through 1.8 remains current as job performance requirements evolve and  
if the procedure has been properly implemented in all respects.

### REVIEW REQUIREMENTS

- 1.10 Are approved procedures properly implemented to maintain the information in Questions 1.1 through 1.8 current as job performance requirements evolve?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



TOTAL SCORE FOR SECTION I

\_\_\_\_\_

AVERAGE SCORE FOR SECTION I  
(to nearest tenth)

\_\_\_\_\_

LIST ANY CRITICAL CHARACTERIS-  
TICS (\* QUESTIONS) THAT WERE  
SCORED AS ①

\_\_\_\_\_

TRANSFER THE INFORMATION ABOVE  
TO THE SCORING SUMMARY (THE  
LAST PAGE OF THIS DOCUMENT).



EXAMPLES OF SKILLS AND KNOWLEDGE COLLECTED  
THROUGH A COMPREHENSIVE TASK ANALYSIS

(Sheet 1 of 6)

TASK ANALYSIS DATA COLLECTION FORM

00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99
01 MIX THE CONTENTS OF THE POISON WATER TANK																																																																																																			
02 01 Poison water tank contains a toxic solution has been calculated for 1 hour																																																																																																			
03 01 Plant number - All details																																																																																																			
04 01 When required by the routine maintenance schedule																																																																																																			
05 01 Poison water tank has been raised for 1 hour																																																																																																			
06 01 Poison water tank calculating pump must be run for 1 hour 02 Poison water tank level must be at required operating level																																																																																																			
07 01 Radiation exposure 02 Personal hazard due to chemical spill - most probable cause of spill is leakage through pump shaft seal																																																																																																			
08 01 Possible loss of poison water tank contents																																																																																																			

Definition/Explanation of Important Parts of the Task Analysis

04 Initiating Cue(s)

The stimulus or stimuli that prompt task performance. (What happens to let the job incumbent know that he should start performing the task?)

05 Terminating Cue(s)

The stimulus or stimuli that indicate task completion. (What happens to let the job incumbent know that he has completed the task?)

06 Standards

The testable or measurable criteria regarding quality, sequence, accuracy, and time that must be met while performing the task. (What are the most important differences between the way someone performs this task well and someone who performs the task poorly?)

EXAMPLES OF SKILLS AND KNOWLEDGE COLLECTED  
THROUGH A COMPREHENSIVE TASK ANALYSIS

(Sheet 2 of 6)

TASK ANALYSIS DATA COLLECTION FORM

Page 2 of 6  
TASK: *ELR*

10	SYSTEM INTERFACES	01 AC electrical distribution system											
10	HUMAN INTERFACES	01 Shift supervisor											
11	GENERAL TOOLS AND EQUIPMENT	NONE											
12	GENERAL REFERENCES	01 Power water solution system operating procedures 02 Administrative procedures											
16	INSTRUCTIONAL SETTING	01 Optimal - in plant 02 Alternate - classroom											
17	JPM METHOD	01 Optimal setting - in plant 02 Optimal method - actual performance 03 Alternate setting - classroom 04 Alternate method - task strategy											
18	REVIEW DATA	REVIEW STEP	NAME	DATE	COMMENTS	REVIEW STEP	NAME	DATE	COMMENTS	REVIEW STEP	NAME	DATE	COMMENTS
18	* OBSERVERS RECOMMENDATION DO NOT VOTE ON THIS IF ONLY ONE OBSERVER WAS AVAILABLE	1. OBSERVATION IS COMPLETE	Hess, X/ Tach	1/14 83	Power water solution set	5. VALIDATION CHECKS COMPLETE	Burgess	1/14/83		6. DATA ENTRY COMPLETE	Salomon	1/14/83	
		3. INITIAL DE CASCIO COMPLETE	Salomon	1/14/83		4. TASKING COMPLETE	Salomon	1/14/83					

Definition/Explanation of Important Parts of the Task Analysis

16 Instructional Setting

The recommended setting that is both optimum and most feasible to be used in training the performance of the subject task.

17 JPM Method

The recommended method and setting that are optimum and most feasible to be used in testing an operator's ability to perform the subject task.

### EXAMPLES OF SKILLS AND KNOWLEDGE COLLECTED THROUGH A COMPREHENSIVE TASK ANALYSIS

(Sheet 3 of 6)

Page 1 of 1

\_\_\_\_\_ *Product: Personal Services, Subscription System*

STEP	C	SLIPST	COND	STANDARD	REMARKS	INSTRUMENT
01		Verify the piston water level within 1 ft correction. within valve is shut and exposed			01 Piston water level within 1 ft correction. within valve is shut and exposed	
02		Verify the piston water level that is at normal operating level by checking the level sight glass			02 Piston water level within 1 ft correction. within valve is shut and exposed	
03		Open the piston water level circulating pump isolation and discharge valves			03 Piston water level within 1 ft correction. within valve is shut and exposed	
04		Verify the piston water level circulating pump pressure and in valve is shut and exposed			04 Piston water level within 1 ft correction. within valve is shut and exposed	
05		Monitor the piston water level circulating pump			05 Piston water level within 1 ft correction. within valve is shut and exposed	
06		Verify the piston water level circulating pump			06 Piston water level within 1 ft correction. within valve is shut and exposed	
07		Place the piston water level circulating pump isolation and discharge valves			07 Piston water level within 1 ft correction. within valve is shut and exposed	
08		Verify the piston water level level is at normal level by checking the level sight glass			08 Piston water level within 1 ft correction. within valve is shut and exposed	
09		Make required log entries			09 Piston water level within 1 ft correction. within valve is shut and exposed	
10		Inform the supervisor that entry of the piston water level is complete			10 Piston water level within 1 ft correction. within valve is shut and exposed	

### Definition/Explanation of Important Parts of the Task Analysis

19 Element

The action steps used by the job incumbent in completing the subject task.

20 Conditions

Any required condition necessary for the performance of a particular element.

21 Standards

Any measurable criterion that must be observed or achieved during the performance of a particular element.

# EXAMPLES OF SKILLS AND KNOWLEDGE COLLECTED THROUGH A COMPREHENSIVE TASK ANALYSIS

(Sheet 4 of 6)

Page 4 of 6

ENGINEERING SYSTEM: Reactive Person Water Solution System  
TASK: 24.24  
TASK TITLE: 24.24 THE CONTENTS OF THE PERSON WATER TASK

STEP	24 TASKS/STORY CODE	SKILLS AND KNOWLEDGE	25 PROBLEM ASSESSMENT (25 any new task?)	26 PROBLEM RESOLUTION (26 any new task?)
01	240000000000	Purpose of the reactive person water system (provide for emergency reaction shutdown)		
	240000000000	Purpose of the person water tank fill connection (provide capacity to add water to the person water tank)		
	240000000000	Location of the person water tank fill connection isolation valve (hidden behind shielding)		
02	240000000000	Location of the person water tank sight glass		
	240000000000	Required level in the person water tank		
	240000000000	Interpretation of the person water tank sight glass (known scale, graduated in inches)		
	240000000000	Chemical formula for Cadmium Nitrate - $\text{Cd}(\text{NO}_3)_2$		
	240000000000	Chemical characteristics of Cadmium Nitrate A Reacts violently with water through chemical reaction B Remains in solution at room temperature		
	240000000000	Purpose of Cadmium Nitrate ( $\text{Cd}(\text{NO}_3)_2$ ) (acts as a poison to initiate emergency reaction shutdown margin)		
	240000000000	Definition of a 'poison' (any chemical or ion that has an affinity for absorbing neutrons)		
03	240000000000	Flowpath for circulating the person water tank		
	240000000000	Location of the person water tank circulating pump suction valve		
	240000000000	Location of the person water tank circulating pump discharge valve		
	240000000000	Operation of the person water tank circulating pump suction valve (manually operated valve)		
	240000000000	Operation of the person water tank circulating pump discharge valve (manually operated valve)		
	240000000000	Operation of manual handwheel operated valves (open/close, block/stop, close/checked)		

## Definition/Explanation of Important Parts of the Task Analysis

### 24 Skills and Knowledge

The particular statements of required knowledge in an academic, system, and/or generic equipment component sense necessary to support the operator's performance of each of the elements. These must be related directly to a particular step number.

# EXAMPLES OF SKILLS AND KNOWLEDGE COLLECTED THROUGH A COMPREHENSIVE TASK ANALYSIS

(Sheet 5 of 6)

Page 5 of 6

ENGINEERING SYSTEM Reactor Process Water Solution System  
TASK # 4.1  
TASK TITLE Check the Contents of the Reactor Water Tank

STEP	24 TARDUPOINT CODE	25 SKILLS AND KNOWLEDGE	26 PROBLEM ASSESSMENT (DO ANY NEW TASKS?)	27 PROBLEM RESOLUTION (DO ANY NEW TASKS?)
4	204821010000 Location of the process water tank circulating pump power cord. 204821010100 Location of the process water tank circulating pump motor. 204821010200 AC electrical cord. 204821010300 Location of the process water tank circulating pump electrical outlet supply circuit breaker. 204821010400 Process water tank circulating pump power supply. 204821010500 Effect of circulating the process water tank on availability of process water for emergency reaction shutdown (can be tricky in the situation of process water dump could be well).			
5	204821020000 Orientation of chemicals in solution (can time chemicals and to give take out of solution unless served in dry solid). 204821020100 Flow path for circulating the process water tank. 204821020200 Reason for circulating the process water tank for one hour (to make sure mixing of the process throughout the solution prevent stratification). 204821020300 Reason of the process water circulating pump (circulation medium is made solution through the process water tank to make sure mixing of the solution).			
6	204821030000 Location of the process water tank circulating pump power cord. 204821030100 Location of the process water tank circulating pump motor AC electrical outlet. 204821030200 Location of the process water tank circulating pump electrical outlet supply circuit breaker. 204821030300 Process water tank circulating pump power supply.			
7	204821040000 Flow path for circulating the process water tank. 204821040100 Location of the process water tank circulating pump solution valve. 204821040200 Location of the process water tank circulating pump discharge valve. 204821040300 Operation of the process water tank circulating pump solution valve (manually operated valve). 204821040400 Operation of the process water tank circulating pump discharge valve (manually operated valve). 204821040500 Operation of manual hand-operated operated valve (open counter-shutdown close check valve).			

# EXAMPLES OF SKILLS AND KNOWLEDGE COLLECTED THROUGH A COMPREHENSIVE TASK ANALYSIS

(Sheet 6 of 6)

Page 6 of 6

ENGINEERING SYSTEM Radioactive Material Waste Solution  
TASK # 08.01  
TASK TITLE Fill the contents of the Radioactive Tank

STEP	TASK/KNOWLEDGE CODE	SKILLS AND KNOWLEDGE	PROBLEM ASSESSMENT YES NO YES NO	PROBLEM RESOLUTION YES NO YES NO
08	200010000000 200010000000 200010000000 300000000000 300000000000 300000000000 300000000000 300000000000	Location of the person waste tank system Diagram (used in the person waste tank) Interpretation of the person waste tank system (linear scale, graduated in inches) Physical characteristics of cadmium salts A readily soluble substance through chemical reaction of cadmium in solution at room temperature Purpose of cadmium salts (Cd(NO <sub>3</sub> ) <sub>2</sub> ) (used as a poison to remove undesired material from solution) Definition of a "poison" (any chemical or ion that has an affinity for binding material) Chemical formula for cadmium salts - Cd(NO <sub>3</sub> ) <sub>2</sub>		
09	200010000000 200010000000 200010000000	Location of control room log Familiarity with data - statistics procedures regarding log entries Ability to make proper log entries (clear, concise, legible)		
10	300000000000	Communication skill (Pass to Pass passing information)		

SECTION 2 --  
DEVELOPMENT OF LEARNING OBJECTIVES

Obtain the Following Documentation:

- o Learning objectives associated with the tasks selected for this review.
- o Information linking these learning objectives to job performance requirements.
- o Procedures/instructions with respect to maintaining learning objectives current.
- o Documentation with respect to a recent plant modification or procedural change that should necessitate revision of training.

2-1L

SECTION 2 --  
DEVELOPMENT OF LEARNING OBJECTIVES

List of Documentation Obtained

- ☐ Learning objectives associated with the tasks selected for this review.
- ☐ Information linking these learning objectives to job performance requirements.
- ☐ Procedures/instructions with respect to maintaining learning objectives current.
- ☐ Documentation with respect to a recent plant modification or procedural change that should necessitate revision of training.

2-1R



#### REVIEW GUIDANCE

2.1\* Is there a learning objective for each of the tasks selected for evaluation?

A learning objective describes precisely what is to be learned in terms of the expected trainee performance under specified conditions to accepted standards. These learning objectives are often referred to as terminal learning objectives, and are easy to identify because they are similar to the task statements. An example of a terminal learning objective for a mechanical technician job is:

"Given the disassembled parts of a service water pump, proper tools, and the approved procedure, reassemble the pump in accordance with the steps of the approved procedure."

It is not necessary to consider the quality of the learning objectives at this point. Subsequent questions will address the quality of the objectives.

#### REVIEW REQUIREMENTS

2.1\* Is there a learning objective for each of the tasks selected for evaluation?

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

#### SCORING GUIDANCE

For the three to six tasks selected for this inspection score this question as a:

- ① if there are no learning objectives for these tasks.
- ② if there are learning objectives for those tasks:
  - o Selected for initial training,
  - o Related to emergency/abnormal operations.
- ③ if there are learning objectives for all tasks selected for this review.

\* Indicates that this is a critical characteristic of the training program. A score of ① for this question indicates that the training program is "unacceptable" overall.

### REVIEW GUIDANCE

- 2.2 For each of the learning objectives in Question 2.1, are there associated learning objectives related to the skills and knowledge that enable the trainee to perform the tasks?

These learning objectives are often referred to as enabling learning objectives. (A review of the example of the skills and knowledge collected through a comprehensive task analysis, provided on the pages that follow Question 1.5 (pages 1-8L through 1-13) will illustrate the origin of enabling learning objectives.)

### REVIEW REQUIREMENTS

- 2.2 For each of the learning objectives in Question 2.1, are there associated learning objectives related to the skills and knowledge that enable the trainee to perform the tasks?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### SCORING GUIDANCE

For the three to six tasks selected for the review, score this question as a:

- ① if learning objectives are not identified for the skills and knowledge that enable the trainee to perform these tasks.
- ② if learning objectives are identified for the skills and knowledge that enable the trainee to perform tasks:
  - o Selected for initial training,
  - o Related to emergency/abnormal operations(the only exceptions being any skills/knowledge that are assumed to be entry-level skills/knowledge).
- ③ if learning objectives are identified for the skills and knowledge that enable the trainee to perform all the tasks selected for this review (the only exceptions being any skills/knowledge that are assumed to be entry-level skills/knowledge).

### REVIEW GUIDANCE

- 2.3 Does each of the learning objectives in Questions 2.1 and 2.2 state the behavior (action) that is expected of the trainee upon completion of training?

Listed below are examples of these behaviors (action verbs):

<u>Knowledge</u>		<u>Skill</u>	
Analyze	Name	Adjust	Repair
Apply	Prove	Assemble	Replace
Calculate	Recall	Calibrate	Select
Check (visual)	Recite	Close	Set
Classify	Relate	Communicate	Start
Derive	Solve	Inspect	Stop
Discriminate	State	Open	Throttle
Evaluate	Tell	Operate	Trip
Identify	Verify	Reassemble	Vent
List	Write	Remove	
Monitor			

Examples of these behaviors (actions) are underlined in the learning objectives below:

Given the disassembled parts of a service water pump, proper tools, and the approved procedures, reassemble the pump in accordance with the steps of the approved procedure.

Given temperature indications and their associated times, calculate the heatup rate with an accuracy of within  $\pm 2$  degrees per hour.

### SCORING GUIDANCE

For the learning objectives identified in Questions 2.1 and 2.2, score this question as a:

- ① if one or more of these learning objectives do not include behaviors.
- ② if behaviors are stated for all learning objectives.
- ③ if behaviors are stated for all learning objectives and non-specific action verbs (such as "know" and "understand") that are difficult to evaluate are avoided.

### REVIEW REQUIREMENTS

- 2.3 Does each of the learning objectives in Questions 2.1 and 2.2 state the behavior (action) that is expected of the trainee upon completion of training?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### REVIEW GUIDANCE

2.4\* Are these behaviors (actions) based upon an analysis of the associated job performance requirements?

In general, the behaviors stated in the learning objectives should be the same as those stated in the related tasks/skills/knowledge; however, there are reasons why there may be differences between these behaviors. For example, plant safety, potential for equipment damage or other considerations may preclude the actual performance of the task in training. Therefore, the learning objective action statement may be "simulate tripping the auxiliary boiler" when the task action statement is "trip the auxiliary boiler."

#### SCORING GUIDANCE

For the learning objectives identified in Questions 2.1 and 2.2, score this question as a:

- ① if the behaviors are not based upon an analysis of associated job performance requirements.
- ② if there is an auditable link between job performance requirements and the learning objective action statements for all learning objectives.
- ③ if for all learning objectives the behavior (action statement) is the same as the associated task/skill/knowledge or the difference between the two action statements can be reconciled.

#### REVIEW REQUIREMENTS

2.4\* Are these behaviors (actions) based upon an analysis of the associated job performance requirements?

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

\* Indicates that this is a critical characteristic of the training program. A score of ① for this question indicates that the training program is "unacceptable" overall.

### REVIEW GUIDANCE

- 2.5 Does each of the learning objectives in Questions 2.1 and 2.2 state the job performance-based condition(s) under which the trainee actions will take place?

Examples of conditions are underlined in the following learning objectives:

Given the disassembled parts of a service water pump, proper tools, and the approved procedure, reassemble the pump in accordance with the steps of the approved procedure.

Given temperature indications and their associated times, calculate the heatup rate with an accuracy of within  $\pm 2$  degrees per hour.

### REVIEW REQUIREMENTS

- 2.5 Does each of the learning objectives in Questions 2.1 and 2.2 state the job performance-based condition(s) under which trainee actions will take place?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### SCORING GUIDANCE

Score this question as a:

- ① if these learning objectives do not include condition statements, or if the condition statements do not meet the requirements for a score of ②.
- ② if conditions are stated for all the objectives in Question 2.1 (terminal learning objectives) and at least 2/3 of the objectives in Question 2.2 (enabling learning objectives), and the conditions are derived from job performance requirements.
- ③ if conditions are based upon an analysis of job performance requirements, and the conditions are as specific as the examples above.

### REVIEW GUIDANCE

- 2.6\* Does each of the learning objectives in Questions 2.1 and 2.2 state a specific job performance-based standard for successful performance of the learning objective?

Examples of standards are underlined in the following learning objectives:

Given the disassembled parts of a service water pump, proper tools, and the approved procedure, reassemble the pump in accordance with the steps of the approved procedure.

Given temperature indications and their associated times, calculate the heatup rate with an accuracy of within  $\pm 2$  degrees per hour.

### REVIEW REQUIREMENTS

- 2.6\* Does each of the learning objectives in Questions 2.1 and 2.2 state a specific job performance-based standard for successful performance of the learning objective?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### SCORING GUIDANCE

Score this question as a:

- ① if these learning objectives do not include specific standards, or the standards do not meet the requirements for a score of ②.
- ② if specific standards are identified for all objectives in Question 2.1 (terminal learning objectives), and at least 2/3 of the objectives in Question 2.2 (enabling learning objectives), and the standards are derived from job performance requirements.
- ③ if specific standards are identified for all learning objectives, and these standards are based upon an analysis of associated job performance requirements, and the standards are as specific as the examples above.

- \* Indicates that this is a critical characteristic of the training program. A score of ① for this question indicates that the training program is "unacceptable" overall.

### REVIEW GUIDANCE

2.7 Are the learning objectives sufficiently detailed to support instructional design/development?

Given only the information in the learning objectives, is there sufficient information on which to develop a lesson plan? Examples of learning objectives that are not sufficiently detailed are:

"Solve basic mathematics problems" and

"Operate plant equipment."

Neither of these objectives is specific enough to allow even identification of meaningful conditions or standards.

In contrast, learning objectives should provide the instructional designer with the information necessary to organize objectives, select instructional settings, and other related actions required to design and develop a training program. Here are two examples of good learning objectives:

"Given a handheld calculator, calculate the volume of a cylinder, without error" and

"When directed by the shift supervisor and given the appropriate procedure, start a main feedwater pump in accordance with the appropriate procedure."

### SCORING GUIDANCE

Score this question as a:

- ① if most of the learning objectives are not sufficiently detailed to support instructional design/development.
- ② if all the objectives in Question 2.1, and at least 1/2 of the objectives in Question 2.2 are sufficiently detailed to support instructional design/development.
- ③ if all learning objectives in Questions 2.1 and 2.2 are sufficiently detailed to support instructional design/development.

### REVIEW REQUIREMENTS

2.7 Are the learning objectives sufficiently detailed to support instructional design/development?

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3



#### REVIEW GUIDANCE

- 2.8 Are there written procedures that require modification of learning objectives when related job performance requirements change?

Obtain a recent plant modification package, procedural change, or other document revision that should necessitate the revision of training and the procedure for modification of training programs when job performance requirements change. Determine whether the procedure has been followed and documented in this case.

#### REVIEW REQUIREMENTS

- 2.8 Are there written procedures that require modification of learning objectives when related job performance requirements change?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### SCORING GUIDANCE

Score this question as a:

- ① if the procedure has not been followed or if no procedure exists.
- ② if the procedure has been followed to the extent required to ensure that job performance requirements are generally current.
- ③ if the procedure has been properly implemented in all aspects.

TOTAL SCORE FOR SECTION 2

\_\_\_\_\_

AVERAGE SCORE FOR SECTION 2  
(to nearest tenth)

\_\_\_\_\_

LIST ANY CRITICAL CHARACTERIS-  
TICS (\* QUESTIONS) THAT WERE  
SCORED AS ①

\_\_\_\_\_

TRANSFER THE INFORMATION ABOVE  
TO THE SCORING SUMMARY (THE  
LAST PAGE OF THIS DOCUMENT).



SECTION 3 --  
DESIGN/IMPLEMENTATION

Obtain the Following Documentations:

- o The list of three to six tasks selected for this review (page 1-2R of this procedure),
- o Instructions/procedures that describe the training organization's goals, objectives, plans, and relationships with other parts of the facility's organization,
- o Documentation with respect to the updating/revision of these goals and objectives and the evaluation of the training organization against these goals and objectives,
- o Instructions/procedures that define the responsibility and authority of training organization personnel,
- o Roster/organization chart for the training organization,
- o Instructions/procedures that describe the method(s) used for evaluating/selecting instructional methods and media,
- o Documentation with respect to evaluation/selection of the instructional methods and media for the three to six tasks selected for this review,
- o Instructions/procedures with respect to the organization/sequencing of learning objectives for initial and continuing training,

3-1L

SECTION 3 --  
DESIGN/IMPLEMENTATION

List of Documentation Obtained

- ☐ The list of three to six tasks selected for this review (page 1-2R),
- ☐ Instructions/procedures that describe the training organization's goals, objectives, plans, and relationships with other parts of the facility's organization,
- ☐ Documentation with respect to the updating/revision of these goals and objectives and the evaluation of the training organization against these goals and objectives,
- ☐ Instructions/procedures that define the responsibility and authority of training organization personnel,
- ☐ Roster/organization chart for the training organization,
- ☐ Instructions/procedures that describe the method(s) used for evaluating/selecting instructional methods and media,
- ☐ Documentation with respect to the evaluation/selection of the instructional methods and media for the three to six tasks selected for this review.
- ☐ Instructions/procedures with respect to the organization/sequencing of learning objectives for initial and continuing training,

(continued on next page.)

3-1R

SECTION 3 --  
DESIGN/IMPLEMENTATION (Cont'd)

Obtain the Following Documentation (Cont'd):

- o Documentation with respect to the organization/sequencing of the learning objectives associated with the three to six tasks selected for this review,
- o Lesson plans that include the learning objectives associated with the three to six tasks selected for this review,
- o Procedure/instruction for evaluating the appropriateness of existing instructional materials based upon job performance requirements and learning objectives,
- o Examples of existing instructional materials that were evaluated using the procedure/instruction above (If existing instructional materials were selected to train the three to six tasks selected for this review, obtain this material.),
- o Procedures/instructions for keeping training programs current,
- o Training schedule for the time during which the review will be conducted, and
- o Procedures/instructions for maintaining training records.

3-2L

SECTION 3 --  
DESIGN/IMPLEMENTATION (Cont'd)

List of Documentation Obtained (Cont'd)

- ☐ Documentation with respect to the organization/sequencing of the learning objectives associated with the three to six tasks selected for this review,
- ☐ Lesson plans that include the learning objectives associated with the three to six tasks selected for this review,
- ☐ Procedure/instruction for evaluating the appropriateness of existing instructional materials based upon job performance requirements and learning objectives,
- ☐ Examples of existing instructional materials that were evaluated using the procedure/instruction above (If existing instructional materials were selected to train the three to six tasks selected for this review, obtain this material.),
- ☐ Procedures/instructions for keeping training programs current,
- ☐ Training schedule for the time during which the review will be conducted, and
- ☐ Procedures/instructions for maintaining training records.

3-2R

#### REVIEW GUIDANCE

- 3.1\* Is there a written plan that clearly and specifically states the training organization's goals, objectives, and plans, and relationships with other parts of the facility's organization?

#### REVIEW REQUIREMENTS

- 3.1\* Is there a written plan that clearly and specifically states the training organization's goals, objectives, and plans, and relationships with other parts of the facility's organization?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### SCORING GUIDANCE

Score this question as a:

- ① if there is no written plan, or if goals, objectives, and plans are stated only in general ways that do not permit objective evaluation of their success.
- ② if there is a written plan that addresses, as a minimum, the training organizations' goals and plans and some objective evaluation of the achievement of these goals and plans is possible.
- ③ if there is a written plan that addresses the training organization's goals, objectives, and plans and relationships with other parts of the organization in clear and specific terms that permit an objective evaluation of their success.

\* Indicates that this is a critical characteristic of the training program. A score of ① for this question indicates that the training program is "unacceptable" overall.

#### REVIEW GUIDANCE

- 3.2 Are these goals, objectives, and plans maintained current and used as the basis for periodic evaluation of the training organization's performance?

#### REVIEW REQUIREMENTS

- 3.2 Are these goals, objectives, and plans maintained current and used as the basis for periodic evaluation of the training organization's performance?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### SCORING GUIDANCE

Score this question as a:

- ① if there is no written requirement to review/revise these goals, objectives and plans or no indication that they are revised periodically.
- ② if there is a written requirement to review/revise these items at no more than two-year intervals and there are indications that the reviews are being conducted.
- ③ if the requirements for a score of ② are met and the training organization's performance is evaluated against these objectives at no more than two-year intervals.

#### REVIEW GUIDANCE

3.3 Are the responsibilities and authority of training organization personnel clearly stated in writing?

#### REVIEW REQUIREMENTS

3.3 Are the responsibilities and authority of training organization personnel clearly stated in writing?

NOT AT ALL  
1  
GENERALLY  
2  
COMPLETELY  
3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

#### SCORING GUIDANCE

Score this question as a:

- ① if there is no approved document defining responsibilities and authorities of training organization personnel.
- ② if there is a written document that defines the responsibilities and authorities of all management, supervisory and senior instructor level personnel in the training organization.
- ③ if there is an approved document that clearly and unambiguously defines the responsibilities and authorities of all training organization personnel on the roster/organization chart.



### REVIEW GUIDANCE

3.4 Are instructional settings appropriate given job performance requirements and learning objectives?

Review the instructional settings for the learning objectives associated with the three to six tasks selected for this review. (A job aid for selection of instructional settings is provided on the next page.)

Instructional settings are the environments in which learning occurs. In order to provide the opportunity for mastery of the training, the job performance requirements must be considered in selecting the appropriate instructional setting. For example, it would not be appropriate to select a classroom as the instructional setting for a learning objective that requires a "hands-on" environment for mastery.

The instructional settings generally used by facilities are:

- o Classroom instruction,
- o Laboratory and workshop instruction,
- o Formal on-the-job training (OJT),
- o Simulator instruction, and
- o Self-study.

### REVIEW REQUIREMENTS

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

3.4 Are instructional settings appropriate given job performance requirements and learning objectives?

COMMENTS: \_\_\_\_\_

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### SCORING GUIDANCE

Score this question as a:

- ① if there has been no review of instructional settings for the learning objectives associated with these tasks.
- ② if there has been a selection of instructional settings for these learning objectives and the selections are consistent with the characteristics in the job aid for selecting instructional settings for all terminal learning objectives and at least 2/3 of the enabling learning objectives.
- ③ if the selection of instructional settings is consistent with job aid for all the learning objectives reviewed.

# JOB AID FOR SELECTING INSTRUCTIONAL SETTINGS

INSTRUCTIONAL SETTING	SOME REASONS FOR USE	SOME REASONS NOT TO USE
Classroom	<ul style="list-style-type: none"> <li>o Large group of trainees can be scheduled at the same time</li> <li>o Large amount of information is to be presented</li> </ul>	<ul style="list-style-type: none"> <li>o Hands-on environment is required for mastery</li> </ul>
Laboratory and Workshop Instruction	<ul style="list-style-type: none"> <li>o Hands-on environment required and necessary conditions can be provided in the laboratory</li> </ul>	<ul style="list-style-type: none"> <li>o Necessary conditions cannot be provided/simulated in the laboratory</li> </ul>
Formal OJT	<ul style="list-style-type: none"> <li>o Hands-on environment required and necessary conditions/equipment operation can be provided in the plant</li> <li>o Sufficient qualified personnel are available to conduct the OJT</li> </ul>	<ul style="list-style-type: none"> <li>o Necessary conditions cannot be provided/simulated in the plant (e.g., emergency indications)</li> <li>o High fidelity of training is required and plant status/safety does not permit manipulation of the equipment</li> </ul>
Simulator Instruction	<ul style="list-style-type: none"> <li>o High fidelity to the job task is required during training for the skills and knowledge to be mastered by the trainee</li> </ul>	<ul style="list-style-type: none"> <li>o Necessary conditions can be provided in a less costly setting</li> </ul>
Self-Study	<ul style="list-style-type: none"> <li>o All conditions can be contained in the training material (or made available in the plant)</li> </ul>	<ul style="list-style-type: none"> <li>o Close supervision required to prevent injury or damage to the plant equipment</li> <li>o Task is identified as difficult to learn/perform</li> </ul>

#### REVIEW GUIDANCE

3.5 Is the organization and sequencing of the initial training program(s) based upon the relationships among learning objectives?

Learning objectives may be dependent or, independent of, or complementary to one another. Where there is a dependence of one objective on another, the dependent objective should be taught in a sequence after the objective upon which it is dependent. Complementary objectives should be grouped together to allow the instructor to use these complementary relationships. An example of a dependent relationship would be that recognition of abnormal operation of a pump first requires knowledge of the indicators of normal pump operation. An example of a complementary relationship would be "assembly of a centrifugal pump" and "disassembly of a centrifugal pump."

#### SCORING GUIDANCE

Score this question as a:

- ① if there has been no formal review of the sequencing of training based upon relationships among learning objectives.
- ② if indications are that at least a general review of the sequencing of training has been conducted, and the sequencing of the learning objectives associated with the three to six tasks selected for this inspection is appropriate, based upon your knowledge of any dependent or complementary relationships that exist among these objectives.
- ③ if the requirements for a score of ② are met, and a detailed, structured review of the sequencing of training has been conducted and documented.

3-8L

#### REVIEW REQUIREMENTS

3.5 Is the organization and sequencing of the initial training program(s) content based upon the relationships among learning objectives?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3-8R

#### REVIEW GUIDANCE

- 3.6 Is the organization and sequencing of continuing training based upon the relationships among learning objectives?

#### REVIEW REQUIREMENTS

- 3.6 Is the organization and sequencing of continuing training based upon the relationships among learning objectives?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### SCORING GUIDANCE

Score this question as a:

- ① if there has been no formal review of the sequencing of training based upon relationships among learning objectives.
- ② if indications are that at least a general review of the sequencing of training has been conducted, and the sequencing of the learning objectives associated with the continuing training task(s) selected for this review (see page 1-2R) is appropriate, based upon your knowledge of any dependent or complementary relationships that exist among these objectives.
- ③ if the requirements for a score of ② are met, and a detailed, structured review of the sequencing of training has been conducted and documented.

3-9L

3-9L

### REVIEW GUIDANCE

3.7\*\* Are lesson plans available that include: objectives for the lesson, suggested instructor teaching activities, instructor and trainee references, suggested evaluation methods/standards, and necessary materials?

Select two or more lesson plans that include learning objectives associated with the tasks selected for this review.

A lesson plan is a structured outline that ensures consistency in instructor presentation and evaluation of trainee performance. Regardless of the instructional setting (classroom, laboratory, OJT, simulator, or self-study), lesson plans should include:

- o Learning objectives,
- o Appropriate instructor teaching activities,
- o Instructor and trainee references,
- o Appropriate evaluation methods/standards, and
- o Required materials (audiovisual aids, test equipment, etc.).

For formal OJT, lesson plans frequently are a series of OJT guides. These guides provide guidance and structure during training in the plant. They can also be used as qualification guides or checklists when evaluating a trainee's proficiency in performing a task.

For simulator training, the lesson plan may be identified as an exercise guide and should include:

- o Indications/symptoms to be recognized,
- o Correct responses to the exercise,
- o Standards for objectively evaluating trainee performance, and
- o Feedback to be provided to the trainee.

### SCORING GUIDANCE

Score this question as a:

- ① if lesson plans are not developed, or if the requirements for a score of ② are not met.
- ② if all the lesson plans reviewed contain the information described above.
- ③ if all the lesson plans reviewed contain the information described above, and the level of detail of the information allows specific reference to instructional activities of the trainee and instructor for the objectives listed.

### REVIEW REQUIREMENTS

3.7\*\* Are lesson plans available that include: objectives for the lesson, suggested instructor teaching activities, instructor and trainee references, suggested evaluation methods/standards, and necessary materials?

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

\*\* If Question 3.10 is not included in the evaluation (for whatever reason), then Question 3.7 is a critical characteristic.

### REVIEW GUIDANCE

- 3.8\* Has an objective, auditable method that is based upon entry skills and knowledge and learning objectives been implemented for evaluating the appropriateness of existing instructional materials?

There are many cases where existing instructional materials may be used (either "as is" or with modification) for implementing a performance-based training program. Among these cases are:

- o A training program has been in place for some time before a systematic analysis of job performance requirements is performed (i.e., a licensed operator training program). Because the licensee expects that much of the existing training material for this program will be suitable for a performance-based training program, the licensee chooses to revise these materials (as required) rather than develop new materials.
- o A training program is being developed for a job that is "similar" to another job where performance-based training materials (based upon the other job) are available.

The use of these existing materials (or their modification for use) in a performance-based training program is entirely appropriate if the decision to use these materials is based upon job performance requirements (e.g., the learning objectives) and trainee entry-level skills and knowledge. When such an evaluation is not conducted, subjective decisions will be made, with a bias toward accepting materials that do not meet all job needs.

(Continued on next page)

### SCORING GUIDANCE

Score this question as a:

- ① if there is no documentation indicating that such a review of existing training materials was conducted.
- ② if there is documented indication that existing training materials were evaluated objectively at least once based upon the three criteria on the next page. (If any of the learning objectives associated with the tasks selected for this review are trained through the use of existing materials, these materials should meet the three criteria on the next page.)
- ③ if there is documented indication that existing training materials are regularly and objectively evaluated based upon the three criteria on the next page.

3-11L

### REVIEW REQUIREMENTS

- 3.8\* Has an objective, auditable method that is based upon entry skills and knowledge and learning objectives been implemented for evaluating the appropriateness of existing instructional materials?

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

NOT AT ALL  
 GENERALLY  
 COMPLETELY  
 1 2 3

- \* Indicates that this is a critical characteristic of the training program. A score of ① for this question indicates that the training program is "unacceptable" overall.

3-11R

### REVIEW GUIDANCE

#### 3.8\* (CONT'D)

If existing training materials are used, there should be documentation available that indicates a review of these materials was conducted that included the following criteria:

- o Is the material content and reading level consistent with expected entry- level skills and knowledge?
- o Does the material adequately address the learning objectives?
- o Is the material consistent with other components of the training program?

### REVIEW REQUIREMENTS

- 3.8\* Has an objective, auditable method that is based upon entry skills and knowledge and learning objectives been implemented for evaluating the appropriateness of existing instructional materials?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\* Indicates that this is a critical characteristic of the training program. A score of ① for this question indicates that the training program is "unacceptable" overall.



### REVIEW GUIDANCE

#### 3.9\* Is training being conducted in an adequate manner?

Given the training schedule, select a particular training evolution for observation. Make the selection based on these criteria:

- o Has a particular instructional setting (classroom, laboratory, OJT, simulator) been identified as requiring improvement (through previous parts of this checklist or previous inspections)?
- o Are any of the training evolutions addressing a content area that has been identified as requiring improvement?
- o Is the duration of the evolution consistent with the time available for observation?

Training Observation Checklists for each instructional setting have been provided as separate appendices to these inspection procedures as follows:

<u>Appendix</u>	<u>Training Observation Checklist For</u>
A	Classroom Setting
B	Laboratory Setting
C	OJT Setting
D	Simulator Setting

Complete the appropriate observation checklist provided in the appropriate Appendix (based upon instructional setting).

### SCORING GUIDANCE

Using the results of the training observation, score this question as a:

- ① if a score of ① is received in any major area (as defined on the observation checklist) or  
if the average score for all areas is less than 2.0.
- ② if a score of ② or above is received in all major areas and the average score is 2.0 or greater.
- ③ if a score of ② or greater is received in all areas and the instructor's overall performance is particularly exemplary.

### REVIEW REQUIREMENTS

#### 3.9\* Is training being conducted in an adequate manner?

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

\* Indicates that this is a critical characteristic of the training program. A score of ① for this question indicates that the training program is "unacceptable" overall.

### REVIEW GUIDANCE

#### 3.10 Are adequate methods established for maintaining training records?

The following are the materials that should be included in a training records system:

##### Program Records

- o Training Plans,
- o Training group procedures,
- o Training materials,
- o Test/examination banks,
- o Course schedules and trainee participation,
- o Results of trainee examinations and course evaluations,
- o Analysis results (e.g., job and task analysis), and
- o Data gathered to assess program effectiveness.

##### Trainee Records

- o Records of the training and qualifications of facility employees and
- o Records of the training of contractors and visitors.

The program records have been evaluated through individual questions in this and other sections. Therefore, this question focuses on trainee records.

To evaluate trainee records, select the name of an individual who has been qualified to perform the job in question. Ask for the training records of this individual.

### REVIEW REQUIREMENTS

#### 3.10 Are adequate methods established for maintaining training records?

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

### SCORING GUIDANCE

#### Score this question as a:

- ① if there are no records of this individual's training and qualifications or if the requirements for a score of ② are not met.
- ② if the training records for this individual indicate completion of all training and qualifications required for the job.
- ③ if the requirements for a score of ② are met, and there are indications that individual training records are used to plan individual training.

TOTAL SCORE FOR SECTION 3

\_\_\_\_\_

AVERAGE SCORE FOR SECTION 3  
(to nearest tenth)

\_\_\_\_\_

LIST ANY CRITICAL CHARACTERIS-  
TICS (\* QUESTIONS) THAT WERE  
SCORED AS ①

\_\_\_\_\_

TRANSFER THE INFORMATION ABOVE  
TO THE SCORING SUMMARY (THE  
LAST PAGE OF THIS DOCUMENT).



SECTION 4 --  
TRAINEE EVALUATION

Obtain the Following Documentations:

- o The list of three to six tasks selected for this review (page 1-2R of this procedure),
- o Procedures/instructions concerning the selection of candidates for training and the granting of exemptions from training,
- o Records concerning trainee selection and exemptions granted from training, and
- o Test results for the most recent course for either initial or continuing training.

4-1L

SECTION 4 --  
TRAINEE EVALUATION

List of Documentation Obtained

- ☐ The list of three to six tasks selected for this review (page 1-2R),
- ☐ Procedures/instructions concerning the selection of candidates for training and the granting of exemptions from training,
- ☐ Records concerning trainee selection and exemptions granted from training, and
- ☐ Test results for the most recent course for either initial or continuing training.

4-1R

#### REVIEW GUIDANCE

4.1 Before beginning an initial training program, are candidates for the training program routinely tested or otherwise objectively evaluated based upon assumed entry-level skills and knowledge?

When administered to all candidates for training, pretest results can be used to:

- o Confirm individual candidate qualifications for entering the training program,
- o Identify remedial training requirements for candidates who do not meet the entry-level requirements, and
- o Provide a basis for exempting candidates from all or part of the training program.

#### SCORING GUIDANCE

Score this question as a:

- ① if there is no evidence that candidates for training are routinely tested or otherwise objectively evaluated during the selection process.
- ② if documentation is available to demonstrate that candidates for the training program(s) are routinely tested or otherwise objectively evaluated based upon the assumed entry-level skills and knowledge.
- ③ if the requirements for a score of ② are met, and an aptitude battery is used that either is job specific or is a general aptitude battery that has been validated for use for the specific job.

#### REVIEW REQUIREMENTS

4.1 Before beginning an initial training program, are candidates for the training program routinely tested or otherwise objectively evaluated based upon assumed entry-level skills and knowledge?

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

# REVIEW GUIDANCE

- 4.2 Are exemptions from training only permitted based upon performance-based testing or other objective evaluation methods?

# REVIEW REQUIREMENTS

- 4.2 Are exemptions from training only permitted based upon performance-based testing or other objective evaluation methods?

COMMENTS:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

NOT AT ALL  
1  
GENERALLY  
2  
COMPLETELY  
3

# SCORING GUIDANCE

Score this question as a:

- ① if exemptions from training are permitted without any documented basis for these exemptions.
- ② if no exemptions from training are permitted, or if any exemptions permitted are based upon performance-based testing or other objective and documented evaluation methods.
- ③ if the requirements for a score of ② are met and only performance-based testing is used for granting exemptions.

4-3L

4-3R

#### REVIEW GUIDANCE

4.3\* Are testing methods appropriate given job performance requirements and learning objectives?

For the three to six tasks selected for this review and their associated learning objectives, identify the test items/methods used to evaluate trainee performance.

For task level learning objectives (i.e., terminal learning objectives or TLO's), the actual behavior called for in the task statement and TLO should also be required for the performance test (i.e., the test should assess the task as it is stated).

For learning objectives that support the TLO's (i.e., enabling learning objectives or ELO's), the test items should be consistent with the action statement, conditions, and standards for the ELO. For example, it would not be appropriate to test an ELO with an action statement of "locate fire extinguishers in the control building" through a written test. Although written tests are a valuable means of assessing mastery, a common problem is that they are sometimes selected for convenience rather than appropriateness. Knowledge has various levels, ranging from basic knowledge to comprehension, application, analysis, synthesis, and evaluation. Knowledge tasks beginning with verbs, such as explain, differentiate, evaluate, describe, construct, and solve, require a test that involves more than recall of terms and facts.

#### SCORING GUIDANCE

Score this question as a:

- ① if there is no consistent link between the job performance requirements/learning objectives and the test items.
- ② if the test items for all TLO's evaluate the task/TLO as stated, and test items for at least 2/3 of ELO's are consistent with the action statement, condition, and standards of the ELO.
- \* ③ if the test items for all TLO's and ELO's are consistent with job performance requirements.

#### REVIEW REQUIREMENTS

4.3\* Are testing methods appropriate given job performance requirements and learning objectives?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\* Indicates that this is a critical characteristic of the training program. A score of ① for this question indicates that the training program is "unacceptable" overall.



#### INSPECTION GUIDANCE

##### 4.4 Are appropriate precautions taken to preclude compromise of test contents?

Among the measures that should be implemented are:

1. A sufficient number of questions in a test item bank to permit variations in examinations from one administration of an examination to the next,
2. A single administration of a particular examination, rather than multiple administrations of the same examination, and
3. Regular proctoring of tests.

#### REVIEW REQUIREMENTS

##### 4.4 Are appropriate precautions taken to preclude compromise of test contents?

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

#### SCORING GUIDANCE

Score this question as:

- ① if the requirements for a score of ② are not met.
- ② if measures 1 and 3 above are implemented.
- ③ if all of the measures above are implemented in an apparently effective manner.

#### REVIEW GUIDANCE

- 4.5 Is trainee performance evaluated regularly during the training program, and prompt, objective feedback provided on a regular basis?

Learning is greatly enhanced when trainees are provided feedback with respect to their performance. The more immediate and continuous the feedback the better. This feedback can be provided by self-checks that are scored by the trainee, as in self-study workbooks, or by instructor-administered and scored tests. If instructor-administered tests are used, there should be provisions for promptly providing the results to trainees (i.e., ideally within a day, but no more than a week).

#### SCORING GUIDANCE

Score this question as a:

- ① if there is no evidence of regular, prompt, and objective evaluation/feedback of trainee performance, or if the requirements for a score of ② are not met.
- ② if, within a week after an evaluation, trainees are provided feedback concerning performance that not only indicates whether the overall performance was satisfactory, but also provides at least general feedback concerning specific performances as related to job performance requirements.
- ③ if a comprehensive trainee performance evaluation system is implemented that provides immediate feedback (i.e., either in real time or at the end of a lesson) to trainees related to specific skills/knowledges that do not meet job performance requirements (i.e., learning objective standards).

#### REVIEW REQUIREMENTS

- 4.5 Is trainee performance evaluated regularly during the training program, and prompt, objective feedback provided on a regular basis?

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

#### REVIEW GUIDANCE

- 4.6 Are trainees who perform below minimum standards provided remedial training and retested?

Ask for specific examples of the remediation process and procedures for accomplishing required additional training and testing. The minimum standards used as the basis for requiring remediation should be based upon job performance requirements.

#### SCORING GUIDANCE

Score this question as:

- ① if remedial training and retesting are not included as part of the program.
- ② if a remedial training and retesting program are routinely implemented in cases where trainee performance is below minimum standards.
- ③ if, in addition to the requirements for a score of ②, special retraining techniques are used to correct the difficulties individuals experienced in the original training.

#### REVIEW REQUIREMENTS

- 4.6 Are trainees who perform below minimum standards provided remedial training and retested?

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

#### REVIEW GUIDANCE

- 4.7 Are trainees who do not meet minimum standards after remedial training removed from the training program or from their associated job duties?

Ask for the test records for the two most recently completed initial or continuing training programs. Also retain the information collected in scoring Question 4.7.

Review these test records and remedial training documents.

#### SCORING GUIDANCE

Score this question as a:

- ① if one or more individuals in the program above have completed the training program without meeting minimum standards.
- ② if, for the programs reviewed, all individuals completed met the minimum standards or were removed from the training program.
- ③ if the requirements for a score of ② are met and the root causes of failures are identified and used to improve the selection/training processes (as appropriate).

#### REVIEW REQUIREMENTS

- 4.7 Are trainees who do not meet minimum standards after remedial training removed from the training program or from their associated job duties?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

TOTAL SCORE FOR SECTION 4

\_\_\_\_\_

AVERAGE SCORE FOR SECTION 4  
(to nearest tenth)

\_\_\_\_\_

LIST ANY CRITICAL CHARACTERIS-  
TICS (\* QUESTIONS) THAT WERE  
SCORED AS ①

\_\_\_\_\_

TRANSFER THE INFORMATION ABOVE  
TO THE SCORING SUMMARY (THE  
LAST PAGE OF THIS DOCUMENT).



SECTION 5 --  
PROGRAM EVALUATION

Obtain the Following Documentation:

- o Procedures/instructions for evaluation of training programs,
- o Documentation for the most recent:
  - Evaluation of aggregate trainee performance,
  - Instructor critiques,
  - Trainee critiques,
  - Graduate trainee on-the-job experience critiques, and
  - Supervisor feedback,
- o Results of internal and external audits for the last two years,
- o Results of evaluations of personnel performance problems for the last two years, and
- o Procedures/instructions for the training, qualifications, evaluation, and certification of training personnel.

5-1L

SECTION 5 --  
PROGRAM EVALUATION

List of Documentation Obtained

- ☐ Procedures/instructions for evaluation of training programs,

Documentation for the most recent:

- ☐ Evaluation of aggregate trainee performance,
- ☐ Instructor critiques,
- ☐ Trainee critiques,
- ☐ Graduate trainee on-the-job experience critiques, and
- ☐ Supervisor feedback,

- ☐ Results of internal and external audits for the last two years,

- ☐ Results of evaluations of personnel performance problems for the last two years, and

- ☐ Procedures/instructions for the training, qualifications, evaluation, and certification of training personnel.

5-1R

#### REVIEW GUIDANCE

- 5.1\* Is there a documented program in place to systematically evaluate the effectiveness of training programs and to revise the programs as required?

This item addresses only whether a documented evaluation program exists. Subsequent questions deal with the specifics of the evaluation program.

#### SCORING GUIDANCE

Score this question as a:

- ① if no documented evaluation program exists.
- ② if an approved, documented evaluation program is in place.
- ③ if the requirements for a score of ② are met and there is evidence that the program is periodically evaluated and revised (if required).

#### REVIEW REQUIREMENTS

- 5.1\* Is there a documented program in place to systematically evaluate the effectiveness of training programs and to revise the programs as required?

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

\* Indicates that this is a critical characteristic of the training program. A score of ① for this question indicates that the training program is "unacceptable" overall.

#### REVIEW GUIDANCE

5.2 Is the program evaluated through a systematic analysis of aggregate trainee test performance?

Just as individual trainee test performance is indicative of the strengths and weaknesses of individual trainees, review of the aggregate test performance of trainees provides insights into the strengths and weaknesses of the training program. While the identification of areas where trainees had difficulty in meeting program standards is straightforward, the determination of the cause of these difficulties may not be. There is a tendency to focus on a solution of "more training"; however, the analysis should also consider:

1. The adequacy of the procedures or other job performance aids provided,
2. The adequacy of selection criteria,
3. The sequencing of training (is prerequisite training being provided?), and
4. The qualifications and performance of the instructor.

Review the results of the evaluation of test results for the most recently completed course and the procedure/instruction dealing with this evaluation to score this question.

#### SCORING GUIDANCE

Score this question as a:

- ① if a review of aggregate trainee test scores is neither required nor conducted or if procedures/instructions call for such a review, but the review has not been conducted within the specified time frame (or within six months after the program is completed if no time frame is specified).
- ② if a review of aggregate trainee test scores has been conducted and the review evaluates the causes of any program weaknesses identified.
- ③ if the requirements for a score of ② are met and the evaluation considers at least three (3) of four (4) items listed above.

#### REVIEW REQUIREMENTS

5.2 Is the program evaluated through a systematic analysis of aggregate trainee test performance?

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3



#### REVIEW GUIDANCE

##### 5.3 Are instructor critiques of training used for program evaluation?

Instructors are in a unique position to identify problems with the technical accuracy, completeness, sequencing, and trainee difficulties associated with the training materials. These problems should be identified as they occur through a diary, log, or similar means. Recommended changes should be reviewed in a timely manner and implemented as appropriate.

#### REVIEW REQUIREMENTS

##### 5.3 Are instructor critiques of the training used for program evaluation?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

#### SCORING GUIDANCE

Score this question as a:

- ① if there is no requirement for instructor critiques of training to be used for program evaluation.
- ② if there are both a requirement for instructor critiques of training and indications that these critiques are used for program evaluation.
- ③ if the requirements for a score of ② are met and there are indications that the critiques are an ongoing part of course conduct with a formal method for timely implementation of appropriate changes.

#### REVIEW GUIDANCE

5.4 Are trainee critiques of training used for program evaluation?

Information provided by trainees upon completion of major segments of training should focus on course effectiveness and ways to improve training. To be most effective, the critiques should:

- o Be in written form and
- o Be structured to focus trainee comments on the desired information.

#### REVIEW REQUIREMENTS

5.4 Are trainee critiques of training used for program evaluation?

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

#### SCORING GUIDANCE

Score this question as:

- ① if there is no requirement for trainee critiques of training.
- ② if there is a requirement for trainee critiques of training and indications that these critiques are being regularly solicited and used for program evaluation.
- ③ if the requirements for a score of ② are met and the critiques are structured so as to focus trainee comments on desired information.

#### REVIEW GUIDANCE

##### 5.5 Are job incumbents' on-the-job experiences solicited and used for program evaluation?

Soliciting information from program graduates three to six months after they complete training can aid in identifying strengths and weaknesses of initial training programs. Information from more experienced job incumbents should also be collected to identify needs for continuing (refresher) training. The following types of information should be collected:

1. Unexpected difficulties in performing tasks on the job,
2. Tasks that are particularly difficult or easy to perform,
3. Differences between the way tasks are performed on the job and the way they are taught,
4. Additional training needed to do the job, and
5. Kinds of errors committed on the job.

#### REVIEW REQUIREMENTS

##### 5.5 Are job incumbents' on-the-job experiences solicited and used for program evaluation?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### SCORING GUIDANCE

Score this question as a:

- ① if there is no formal program for soliciting information from job incumbents for program evaluation or if procedures/instructions call for collecting and using this information, but the solicitation has not been conducted.
- ② if information with respect to at least three (3) of the five (5) areas above has been solicited from job incumbents and used for program evaluation.
- ③ if the requirements for a score of ② have been met and the types of information listed above are collected and used for evaluation of both initial and continuing training.

### REVIEW GUIDANCE

#### 5.6 Is feedback from supervisors solicited for program evaluation?

Information should be solicited periodically (annually is suggested) to determine how well the initial training program is preparing individuals to perform their jobs and what continuing training is needed for current job incumbents. The following types of information should be collected:

1. Tasks for which new job incumbents are inadequately prepared,
2. Kinds of errors being committed by job incumbents,
3. Additional training received by new job incumbents once they are on the job,
4. Suggestions for improvements in initial and continuing training programs, and
5. Expected changes in job assignments, procedures, or equipments.

### REVIEW REQUIREMENTS

#### 5.6 Is feedback from supervisors solicited for program evaluation?

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

### SCORING GUIDANCE

#### Score this question as a:

- ① if there is no formal program for soliciting feedback from supervisors for program evaluation or if procedures/instructions call for collecting and using this information, but the solicitation has not been conducted.
- ② if at least three (3) of the five (5) types of information above are collected and used for program evaluation.
- ③ if the requirements for a score of ② are met and the types of information listed above are collected and used for evaluation of both initial and continuing training.

#### REVIEW GUIDANCE

5.7\* Does on-the-job performance indicate that the training and qualification programs are adequate?

An adequate training program is a necessary, but not sufficient, condition for satisfactory on-the-job performance; that is, if training is inadequate, then on-the-job performance will be less than satisfactory. However, unsatisfactory job performance is not always the result of an inadequate training program. The training may be adequate and other factors may be at fault, such as:

- o Inadequate supervision,
- o Poor procedures, or
- o Lack of motivation.

The information used to assess Question 1.7 can also be used to make an independent determination of the overall performance of facility job incumbents for the position(s) being evaluated. If this determination is that there are areas of unsatisfactory job performance, then an attempt should be made to determine the root cause(s) of these performance deficiencies. It is entirely likely that more than one root cause may be identified for a particular deficiency.

#### SCORING GUIDANCE

Score this question as a:

- ① if, based upon the information collected for Question 1.7, job incumbents overall are clearly performing on the job at a level below that necessary to protect the health and safety of the public.
- ② if, based upon the information collected for Question 1.7, job incumbents' overall performance is satisfactory, but there are specific performance deficiencies that may be attributable to the training program.
- ③ if, based upon the information collected for Question 1.7, job incumbents' overall performance is satisfactory and no particular weaknesses were identified.

#### REVIEW REQUIREMENTS

5.7\* Does the on-the-job performance indicate that the training and qualification programs are adequate?

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOT AT ALL  
GENERALLY  
COMPLETELY

\* Indicates that this is a critical characteristic of the training program. A score of ① for this question indicates that the training program is "unacceptable" overall.

#### REVIEW GUIDANCE

5.8 Are both internal and external training program audit/evaluation findings used for program evaluation?

In reviewing training program audit/evaluation findings for the last two years, there should be a resolution for each finding that either adequately rebuts the finding or makes changes in the program in response to the finding. Review these rebuttals and changes to identify whether they are appropriate responses to the findings.

#### SCORING GUIDANCE

Score this question as a:

- ① if audit/evaluation findings are not used for program evaluation.
- ② if (in your opinion) audit/evaluation findings are, in general, appropriately used for program evaluation.
- ③ if all audit/evaluation findings are appropriately used for program evaluation.

#### REVIEW REQUIREMENTS

5.8 Are both internal and external training program audit/evaluation findings used for program evaluation?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### REVIEW GUIDANCE

- 5.9 Are there documented qualification requirements for the training staff that address both subject matter and instructional skills and knowledge appropriate for specific assignments?

Experience has shown that, in addition to a thorough understanding of the training content, successful execution of a training program depends on additional skills and knowledge in the areas of:

- o Training program development (represented by the training professional),
- o Instruction (represented by the qualified instructor), and
- o Management (represented by the management professional with a training background).

In addition to the subject matter expertise element, training staff qualifications should address each of these three skill/knowledge areas also.

#### SCORING GUIDANCE

Score this question as a:

- ① if no documented qualifications for the training staff exist or if the only documented qualifications for the training staff pertain to subject matter expertise.
- ② if, in addition to subject matter expertise, documented training staff qualifications address two of the other three areas.
- ③ if, in addition to subject matter expertise, documented training staff qualifications address training program development, instruction and management.

#### REVIEW REQUIREMENTS

- 5.9 Are there documented qualification requirements for the training staff that address both subject matter and instructional skills and knowledge appropriate for specific assignments?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### REVIEW GUIDANCE

5.10\* Are the staff members who are responsible for analysis of job requirements and program design/development qualified for these assignments based upon objective evaluation of their qualifications?

In addition to subject matter knowledge specialized skills and knowledge are required in:

1. Analyzing jobs and tasks,
2. Developing learning objectives, and
3. Selecting appropriate instructional settings, methods, and media, etc.

In general, training program effectiveness varies with the degree to which personnel charged with these tasks possess the requisite skills and knowledge. The skills and knowledge are normally acquired through specialized training coupled with practical experience.

#### SCORING GUIDANCE

Score this question as a:

- ① if no provision for determining staff member qualifications in the three (3) areas above is evident.
- ② if provision for determining staff member qualifications in the three (3) areas above is made.
- ③ if provision for determining staff member qualifications in these areas is made, and the qualification criteria are based on an objective (documented) evaluation of specific job requirements.

#### REVIEW REQUIREMENTS

5.10\* Are the staff members who are responsible for analysis of job requirements and program design/development qualified for these assignments based upon objective evaluation of their qualifications?

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

\* Indicates that this is a critical characteristic of the training program. A score of ① for this question indicates that the training program is "unacceptable" overall.



REVIEW GUIDANCE

- 5.11 Is the performance of each member of the training staff objectively evaluated on a regular basis?

REVIEW REQUIREMENTS

- 5.11 Is the performance of each member of the training staff objectively evaluated on a regular basis?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as:

- ① if no provision is made for evaluating training staff member performance against the job requirements on a periodic basis.
- ② if procedures exist for the periodic (at least once every 12 months) evaluation of training staff member performance against job requirements and there is evidence that the procedures are, in general, being followed.
- ③ if procedures exist and there is evidence that they are being followed in a consistent, accountable manner.

#### REVIEW GUIDANCE

- 5.12 Does the workload of the training staff allow adequate time for maintenance of technical and instructional skills, lesson preparation, and professional development?

The process of developing and maintaining effective and relevant training programs requires considerable non-classroom time. Staffing only to the level required to ensure that classroom contact hours are supported ensures that the training program will become out of date quickly. In addition, the failure to provide sufficient time for preparation, technical skill maintenance, and professional development will reduce the quality of instruction.

#### SCORING GUIDANCE

Score this question as at

- ① if no evidence exists that staffing is, at most, sufficient to maintain scheduled training program contact (i.e., instructional) hours.
- ② if indications are that staffing is generally sufficient to provide the instructional staff with adequate time for lesson preparation, technical skills maintenance, and professional development.
- ③ if indications are that staffing is sufficient to support time required for preparation, etc., and there exists documented policy encouraging this approach.

#### REVIEW REQUIREMENTS

- 5.12 Does the workload of the training staff allow adequate time for maintenance of technical and instructional skills, lesson preparation, and professional development?

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOT AT ALL  
GENRALLY  
COMPLETELY  
1 2 3

#### REVIEW GUIDANCE

5.13 Is initial and continuing training provided for the training staff based upon job requirements?

#### REVIEW REQUIREMENTS

5.13 Is initial and continuing training provided for the training staff based upon job requirements?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

#### SCORING GUIDANCE

Score this question as a:

- ① if no provision for initial or continuing training is evident or the programs do meet the requirements for a score of ②.
- ② if formal initial and continuing training programs are required and there is evidence that the training is regularly provided.
- ③ if, in addition to the requirements for score of ②, the programs are:
  - o Based upon an analysis of job requirements and
  - o Require documentation of exemptions based upon performance testing or other objective measures.

TOTAL SCORE FOR SECTION 5

\_\_\_\_\_

AVERAGE SCORE FOR SECTION 5  
(to nearest tenth)

\_\_\_\_\_

LIST ANY CRITICAL CHARACTERIS-  
TICS (\* QUESTIONS) THAT WERE  
SCORED AS ①

\_\_\_\_\_

TRANSFER THE INFORMATION ABOVE  
TO THE SCORING SUMMARY (THE  
LAST PAGE OF THIS DOCUMENT).



# **TRAINING OBSERVATION CHECKLISTS**

## APPENDIX A

### TRAINING OBSERVATION CHECKLIST (CLASSROOM SESSION)

If a classroom session is selected for observation, this checklist is to be used in support of Question 3.9, which states,

"Is training being conducted in an adequate manner?"

#### CHECKLIST INSTRUCTIONS

Score each question of this checklist after observing the conduct of the entire session. Enter the score for each question in the appropriate space under SCORING SUMMARY on page A-1R.

### SUMMARY SCORING SHEET FOR TRAINING OBSERVATION CHECKLIST "A" (CLASSROOM SESSION)

DATE- \_\_\_\_\_

INSTRUCTOR- \_\_\_\_\_

LESSON TITLE- \_\_\_\_\_

PLANNED LENGTH- \_\_\_\_\_

#### SCORING SUMMARY:

QUESTION	AREA	SCORE ASSIGNED (Circle one)		
A.1	Timing, and Pace	1	2	3
A.2	Introduction and Lesson Context	1	2	3
A.3*	Structure and Content	1	2	3
A.4	Presentation and Poise	1	2	3
A.5	Control and Flow	1	2	3
A.6*	Demonstrated Technical Competence	1	2	3
A.7*	Completeness and Accuracy	1	2	3
A.8	Lesson Summary and Lab Prep	1	2	3
TOTAL SCORE		_____		
AVERAGE SCORE FOR THIS OBSERVATION (to the nearest tenth)		_____		

\* = Major area. A score of (1) for these questions indicates that the overall conduct of training (as evidenced by this observation) is unsatisfactory

### TIMING AND PACE

A.1 Did the instructor present the lesson in a well-paced, coherent fashion within the allotted time?

### REVIEW REQUIREMENTS

A.1 Did the instructor present the lesson in a well-paced, coherent fashion within the allotted time?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### SCORING GUIDANCE

Score this question as a:

- ① if the lesson fell well outside planned duration; the instructor exhibited no time sense during presentation with negative effect on teaching and trainee acceptance of material.
- ② if the lesson fell outside the expected duration by 15-20%; some allowance for questions was provided.
- ③ if the lesson was presented within the allotted time with ample, but not excessive, time for questions; the instructor was aware of time throughout lesson; if lesson was in excess of one hour, a planned, controlled break was provided.

A-2L

A-2R

INTRODUCTION AND LESSON CONTEXT

A.2 Did the instructor inform the class of the lesson objectives, context, and structure?

REVIEW REQUIREMENTS

A.2 Did the instructor inform the class of the lesson objectives, context, and structure?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as a:

- ① if the instructor failed to provide an adequate level of lesson introduction or miscommunicated the overall intent, structure, or context of the lesson with a negative effect on the ensuing instruction.
- ② if the instructor outlined the lesson in general or generic terms, provided some direction for the ensuing instruction; the course context of the lesson was adequately explained as it related to preceding or following lessons.
- ③ if the instructor provided the trainee with a meaningful and complete instructional context for the lesson with reference to the overall course objectives; the lesson was outlined prior to the presentation and the structure was explained in detail.



STRUCTURE AND CONTENT

A.3\* Did the instructor adhere to the content and structure of the instructor guide?

REVIEW REQUIREMENTS

A.3 Did the instructor adhere to the content and structure of the instructor guide?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as a:

- ① if the instructor failed to utilize the instructor guide and, as a result, major errors of omission occurred within the presentation; data required for ensuing training was not covered as required.
- ② if the instructor utilized the outline of instruction with minor departures into other subject areas; the subject areas of the lesson suffered from only minor deviations in the level and content of the presentation by the instructor.
- ③ if the instructor kept to the outline of instruction, departing only to satisfy questions or to maintain class interest/attention; all subject areas were covered at a level commensurate with the data presented in the instructor guide and with the objectives of the lesson.

PRESENTATION AND POISE

A.4 Did the instructor present the lesson in an interesting and attention-getting fashion?

REVIEW REQUIREMENTS

A.4 Did the instructor present the lesson in an interesting and attention-getting fashion?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as a:

- ① if the instructor was confused and nervous with a large negative impact on effectiveness or the instructor was unable to relate to the knowledge level of the trainees.
- ② if the instructor, in general, conveyed a feeling of certainty and presented the lesson in an effective fashion; the instructor monitored and reacted to the attention level of the class with only minor effects on the overall presentation.
- ③ if the instructor was poised and professional and kept the interest of the class throughout the session; the instructor gained and maintained the confidence and trust of the class.

CONTROL AND FLOW

A.5 Did the instructor maintain control of the class and the instructional flow?

REVIEW REQUIREMENTS

A.5 Did the instructor maintain control of the class and the instructional flow?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as a:

- ① if control was never gained by the instructor and the session deteriorated, or tangential discussions were pursued resulting in substantial detriment of the subject matter.
- ② if the lesson was affected in only a minor fashion by loss of control and the end goals of the lesson were attained.
- ③ if the instructor was in control of the class throughout its conduct and did not allow tangential discussions to disrupt the pursuit of the subject at hand; the respect of the class for the instructor allowed the successful completion of the lesson without undue distraction.

DEMONSTRATED TECHNICAL COMPETENCE

A.6\* Did the instructor exhibit a level of technical knowledge adequate to satisfy the requirements of the subject matter?

REVIEW REQUIREMENTS

A.6\* Did the instructor exhibit a level of technical knowledge adequate to satisfy the requirements of the subject matter?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as a:

- ① if the instructor did not seem to possess a technical level of knowledge which would allow successful completion of the lesson.
- ② if the instructor's grasp of the subject matter was adequate to address the level of detail in the instructor guide (lesson plan); the instructor was able to interpret his detailed knowledge to an understandable level; questions were answered in a completion fashion or with only minor/recoverable errors.
- ③ if the instructor exhibited a complete and thorough grasp of the subject matter and was confident enough in this knowledge to be able to relate it in an understandable fashion; questions within the scope of the course were answered correctly and completely; questions outside the scope of the lesson or course were referred to offline discussion.

COMPLETENESS AND ACCURACY

A.7\* Was the lesson, as presented, technically complete and correct and was the information understandable?

REVIEW REQUIREMENTS

A.7\* Was the lesson, as presented, technically complete and correct and was the information understandable?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as a:

- ① if technical errors by the instructor were of such a severe and widespread nature that trainee confidence and instructor credibility could not be maintained; the instructor failed to bridge the gap between the instructor guide (lesson plan) and the reference materials; lack of preparation was obvious.
- ② if there were a few technical errors in the presentation and they were of a minor nature and had little impact on the accomplishment of the objectives; the instructor presented an understandable picture of the function or system.
- ③ if there were no technical errors in the presentation and the instructor presented a complete picture of the function/system including relating the lesson to the overall performance of the function/system.

### LESSON SUMMARY AND LAB PREP

- Ⓐ.8 Did the instructor adequately summarize the class and leave the trainees with a clear picture of remaining requirements for satisfactory objective completion?

### REVIEW REQUIREMENTS

- Ⓐ.8 Did the instructor adequately summarize the class and leave the trainees with a clear picture of remaining requirements for satisfactory completion of the objectives?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### SCORING GUIDANCE

Score this question as a:

- ① if the instructor did not summarize the lesson or provide adequate guidance.
- ② if the instructor provided a brief summary of the lesson that, in general, communicated the requirements for successful lesson completion.
- ③ if the instructor presented a complete and thorough summary of the subject matter and provided the trainees with a review of homework, lab and study requirements, and schedule for completion.

## APPENDIX B

### TRAINING OBSERVATION CHECKLIST (LABORATORY/WORKSHOP SESSION)

If a laboratory/workshop session is selected for observation, this checklist is to be used in support of Question 3.9, which states,

"Is training being conducted in an adequate manner?"

#### CHECKLIST INSTRUCTIONS

Score each question of this checklist after observing the conduct of the entire session. Enter the score for each question in the appropriate space under SCORING SUMMARY on page B-1R.

### SUMMARY SCORING SHEET FOR TRAINING OBSERVATION CHECKLIST "B" (LABORATORY/WORKSHOP SESSION)

DATE- \_\_\_\_\_

INSTRUCTOR- \_\_\_\_\_

LESSON TITLE- \_\_\_\_\_

PLANNED LENGTH- \_\_\_\_\_

#### SCORING SUMMARY:

QUESTION	AREA	SCORE ASSIGNED (Circle one)		
B.1	Timing, Pace, and Orientation	1	2	3
B.2	Introduction and Laboratory/ Workshop	1	2	3
B.3*	Structure and Content	1	2	3
B.4	Facility Support	1	2	3
B.5	Control and Flow	1	2	3
B.6*	Demonstrated Technical Competence	1	2	3
B.7*	Completeness and Accuracy	1	2	3
B.8	Scheduling and Coordination	1	2	3
B.9	Lesson Summary and Lab Prep	1	2	3
TOTAL SCORE		_____		
AVERAGE SCORE FOR THIS OBSERVATION (to the nearest tenth)		_____		

\* = Major area. A score of ① for these questions indicates that the overall conduct of training (as evidenced by this observation) is unsatisfactory

TIMING, PACE, AND ORIENTATION

- Ⓐ Did the instructor present the laboratory/workshop in a well-paced, coherent fashion within the allotted time with sufficient attention to security, equipment, and orientation?

REVIEW REQUIREMENTS

- Ⓐ Did the instructor present the laboratory/workshop in a well-paced, coherent fashion within the allotted time with sufficient attention to security, equipment, and orientation?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as at:

- ① if the laboratory/workshop fell substantially outside planned duration (greater than 20%); instructor exhibited no time sense during presentation and had a negative effect on teaching and trainee acceptance of material.
- ② if the laboratory/workshop fell outside of expected duration by 15-20%; some allowance for questions was provided.
- ③ if the laboratory/workshop was presented within the allotted time with ample, but not excessive, time for questions; if the laboratory class was in excess of one hour, a planned, controlled break was provided



INTRODUCTION AND LESSON CONTEXT

- B.2 Did the instructor inform the class of the laboratory/workshop objectives, context, and structure?

REVIEW REQUIREMENTS

- B.2 Did the instructor inform the class of the laboratory/workshop objectives, context, and structure?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as a:

- ① if the instructor failed to provide an adequate level of laboratory/workshop introduction or miscommunicated the overall intent, structure, or context of the laboratory/workshop with a negative effect on the ensuing instruction.
- ② if the instructor outlined the laboratory/workshop in general or generic terms and provided sufficient direction for the ensuing instruction; the course context of the laboratory/workshop was adequately explained as related to preceding or following sessions.
- ③ if the instructor provided the trainee with a meaningful and complete instructional context for the laboratory/workshop with reference to the overall course objectives; the laboratory/workshop was outlined prior to the presentation and the structure was explained in detail.

STRUCTURE AND CONTENT

B.3 Did the instructor adhere to the content and structure of the instructor guide?

REVIEW REQUIREMENTS

B.3 Did the instructor adhere to the content and structure of the instructor guide?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as a:

- ① if the instructor failed to utilize the instructor guide and, as a result, major errors of omission occurred within the presentation; data required for ensuing training was not covered as required.
- ② if the instructor utilized the outline of instruction with only minor departures into other subject areas; the subject areas of the lesson suffered from minor deviations in the level and content of the presentation by the instructor.
- ③ if the instructor kept to the outline of instruction, departing only to satisfy questions or to maintain class interest/attention; all subject areas were covered at a level commensurate with the data presented in the instructor guide and with the objectives of the lesson.

#### FACILITY SUPPORT

- ⑧.4 Did the instructor use the laboratory/workshop facility in a satisfactory manner to support the achievement of the knowledge and skill requirements as specified in the lesson objectives?

#### REVIEW REQUIREMENTS

- ⑧.4 Did the instructor use the laboratory/workshop facility in a satisfactory manner to support the achievement of the knowledge and skill requirements as specified in the lesson objectives?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### SCORING GUIDANCE

Score this question as a:

- ① if the instructor was confused and nervous and had a negative impact on effectiveness or  
if the instructor was unable to coordinate trainees with equipment and failed to support the achievement of skill objectives in the workshop.
- ② if the instructor, in general, conveyed a feeling of certainty and presented the workshop in an effective fashion; the instructor provided sufficient coordination of trainees, equipment, space and time.
- ③ if the instructor was poised and professional in his coordination of the facilities (e.g., temperature, lighting, space); adequate room and time with the equipment were provided to satisfy skill requirements.

CONTROL AND FLOW

B.5 Did the instructor maintain control of the class and the instructional flow?

REVIEW REQUIREMENTS

B.5 Did the instructor maintain control of the class and the instructional flow?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as a:

- ① if the instructor never gained control and the session deteriorated or time on equipment was inadequate to achieve expected skill level.
- ② if the lesson was affected in only a minor fashion by the loss of control and the end goals of the workshop were attained.
- ③ if the instructor was always in control of the workshop; effective coordination of trainees and equipment was evident; the class' respect for the instructor allowed the successful completion of the workshop without undue distraction.

DEMONSTRATED TECHNICAL COMPETENCE

- ⑥ Did the instructor exhibit a level of technical knowledge adequate to satisfy the subject matter requirements?

REVIEW REQUIREMENTS

- ⑥ Did the instructor exhibit a level of technical knowledge adequate to satisfy the subject matter requirements?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as a:

- ① if the instructor did not seem to have a technical skill level which would allow successful completion of the laboratory/workshop.
- ② if the instructor's grasp of the subject matter was adequate to address the level of detail in the instructor guide; the instructor was able to demonstrate his detailed knowledge to an understandable level; questions were answered in a complete fashion or with only minor/recoverable errors.
- ③ if the instructor exhibited a complete and thorough grasp of the subject matter and was confident enough in this skill to be able to demonstrate it in an understandable fashion; questions within the scope of the course were answered correctly and completely; questions outside the scope of the lesson or course were referred to offline discussion; suggestions and recommendations were offered in an acceptable manner.

COMPLETENESS AND ACCURACY

- ① B.7 Was the laboratory/workshop, as presented, technically complete and were the skill expectations understandable?

REVIEW REQUIREMENTS

- ① B.7 Was the laboratory/workshop, as presented, technically complete and were the skill expectations understandable?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as a:

- ① if technical errors by the instructor were of such a severe and widespread nature that trainee confidence and instructor credibility could not be maintained; the instructor failed to bridge the gap between the instructor guide (lesson plan) and the reference materials; lack of skill and preparation were obvious.
- ② if there were few technical errors in the demonstration and they were of a minor nature and had little impact on the accomplishment of the objectives; the instructor presented a complete picture of the function or system.
- ③ if there were no technical errors in the demonstration and the instructor presented a complete picture of the laboratory equipment, including relating it to equipment in the plant.

#### LESSON SUMMARY AND LAB PREP

- B.9 Did the instructor adequately summarize the laboratory/workshop and leave the trainees with a clear picture of remaining requirements for satisfactory completion of the objectives?

#### INSPECTION REQUIREMENTS

- B.9 Did the instructor adequately summarize the laboratory/workshop and leave the trainees with a clear picture of remaining requirements for satisfactory completion of the objectives?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### SCORING GUIDANCE

Score this question as a:

- ① if the instructor did not summarize the lesson or provide adequate guidance and feedback.
- ② if the instructor provided a brief summary of the lesson that, in general, communicated the requirements for successful laboratory completion.
- ③ if the instructor presented a comprehensive summary of the subject matter and provided the trainees with a complete briefing of laboratory and objective requirements and a schedule for completion; related safety precautions were reinforced in the summary and emphasized prior to the lab.

APPENDIX C  
TRAINING OBSERVATION CHECKLIST  
(OJT SESSION)

If an OJT session is selected for observation, this checklist is to be used in support of Question 3.9, which states,

"Is training being conducted in an adequate manner?"

CHECKLIST INSTRUCTIONS

Score each question of this checklist after observing the conduct of the entire session. Enter the score for each question in the appropriate space under SCORING SUMMARY on page C-1R.

SUMMARY SCORING SHEET FOR  
TRAINING OBSERVATION CHECKLIST "C"  
(OJT SESSION)

DATE- \_\_\_\_\_

INSTRUCTOR- \_\_\_\_\_

LESSON TITLE- \_\_\_\_\_

PLANNED LENGTH- \_\_\_\_\_

SCORING SUMMARY:

QUESTION	AREA	SCORE ASSIGNED (Circle one)		
C.1	Timing, Pace, and Orientation	1	2	3
C.2	Introduction and OJT	1	2	3
C.3*	Structure and Content	1	2	3
C.4	Facility Support	1	2	3
C.5	Control and Flow	1	2	3
C.6*	Demonstrated Technical Competence	1	2	3
C.7*	Completeness and Accuracy	1	2	3
C.8	Scheduling and Coordination	1	2	3
C.9	OJT Summary	1	2	3
TOTAL SCORE		_____		
AVERAGE SCORE FOR THIS OBSERVATION (to the nearest tenth)		_____		

\* = Major area. A score of ① for these questions indicates that the overall conduct of training (as evidenced by this observation) is unsatisfactory



TIMING, PACE, AND ORIENTATION

- (C.1) Did the instructor conduct the OJT in a well-paced, coherent fashion within the allotted time within sufficient attention to security, equipment, and orientation?

REVIEW REQUIREMENTS

- (C.1) Did the instructor conduct the OJT in a well-paced, coherent fashion within the allotted time with sufficient attention to security, equipment, and orientation?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as a:

- ① if OJT fell well outside planned duration; instructor exhibited no time sense during presentation with negative effect on teaching and trainee acceptance of material or environmental conditions did not support conduct of OJT or safety precautions were not followed.
- ② if OJT fell outside of expected duration by 15-20%; some allowance was provided for questions; environmental conditions were adequate for training; safety precautions were sufficiently addressed; orientation to facilities was adequate.
- ③ if OJT was presented within the allotted time with ampie, but not excessive, time for questions; no apparent evidence of rushing or dragging; learning process was aided by environmental conditions; safety precautions adequately addressed; orientation to facilities was adequate.

INTRODUCTION AND CONTEXT

C.2 Did the instructor inform the trainee(s) of the OJT objectives, context, and structure?

REVIEW REQUIREMENTS

C.2 Did the instructor inform the trainee(s) of the OJT objectives, context, and structure?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

SCORING GUIDANCE

Score this question as a:

- ① if the instructor failed to provide an adequate level of OJT introduction or miscommunicated the overall intent, structure, or context of the training with a negative effect on the ensuing instruction.
- ② if the instructor outlined the OJT in general or generic terms or provided adequate direction for the ensuing instruction; the course context of the training was adequately explained as related to preceding or following sessions.
- ③ if the instructor provided the trainee with a meaningful and complete instructional context for the OJT with reference to the overall course objectives; the training was outlined prior to the presentation and the structure was explained in detail.

STRUCTURE AND CONTENT

C.3\* Did the instructor adhere to the content and structure of the instructor guide?

REVIEW REQUIREMENTS

C.3 Did the instructor adhere to the content and structure of the instructor guide?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as a:

- ① if the instructor failed to utilize the instructor guide (lesson plan) and, as a result, major errors of omission occurred within the presentation; data required for ensuing training was not covered as required.
- ② if the instructor utilized the outline of instruction with only minor departures into other subject areas; the subject areas of the lesson suffered from only minor deviations in the level and content of the presentation by the instructor.
- ③ if the instructor kept to the outline of trainee instruction, departing only to satisfy questions or to maintain trainee interest/attention; all areas were covered at a level commensurate with the data presented in the instructor guide and with the intent of the lesson.

#### FACILITY SUPPORT

- C.4 Did the instructor use the training facility in a satisfactory manner to support the achievement of the knowledge and skill requirements as specified in the lesson objectives?

#### REVIEW REQUIREMENTS

- C.4 Did the instructor use the training facility in a satisfactory manner to support the achievement of the knowledge and skill requirements as specified in the lesson objectives?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### SCORING GUIDANCE

Score this question as a:

- ① if the instructor was unable to coordinate trainees with the equipment and failed to support the achievement of skill objectives of the OJT or the learning objective could not be achieved because the equipment did not support the objective.
- ② if the instructor provided sufficient coordination of trainee(s), equipment, and time and adequately monitored the attention level of the trainee(s).
- ③ if the instructor used the equipment/facilities in a way that allowed complete achievement of the desired learning objectives in an efficient and effective manner.

CONTROL AND FLOW

C.5 Did the instructor maintain control of the class and the instructional flow?

REVIEW REQUIREMENTS

C.5 Did the instructor maintain control of the class and the instructional flow?

NOT AT ALL  
1  
GENERALLY  
2  
COMPLETELY  
3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

SCORING GUIDANCE

Score this question as a:

- ① if the instructor never gained control and the session deteriorated; time on equipment was inadequate to achieve expected skill level.
- ② if loss of control affected the lesson in only a minor fashion; related safety precautions and warnings were followed; and the end goals of the training session were attained.
- ③ if the instructor was in control of the training session throughout its conduct; effective coordination of trainee(s) and equipment was evident; related safety precautions and warnings were presented in such a way that a safety awareness/attitude was instilled in the trainee(s).

DEMONSTRATED TECHNICAL COMPETENCE

C.6\* Did the instructor exhibit a level of technical knowledge adequate to satisfy the requirements of the subject matter?

REVIEW REQUIREMENTS

C.6 Did the instructor exhibit a level of technical knowledge adequate to satisfy the requirements of the subject matter?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as:

- ① if the instructor did not seem to possess a technical skill level that would allow successful completion of the OJT.
- ② if the instructor's grasp of the subject matter was adequate to address the level of detail in the instructor guide (lesson plan); the instructor was able to relate his detailed knowledge to an understandable level for the trainee; questions were answered in a complete fashion or with minor/recoverable errors.
- ③ if the instructor exhibited a complete and thorough grasp of the subject matter and was able to demonstrate in an understandable fashion to the trainee; questions within the scope of the training were answered correctly and completely; questions outside the scope of the training were referred to offline discussion.

COMPLETENESS AND ACCURACY

C.7\* Was the training session, as presented, technically complete and were the skill expectations understandable?

REVIEW REQUIREMENTS

C.7\* Was the training session, as presented, technically complete and were the skill expectations understandable?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as a:

- ① if the instructor's technical errors were of such a severe and widespread nature that trainee confidence and instructor credibility could not be maintained; the instructor failed to bridge the gap between the instructor guide (lesson plan) and the OJT to be conducted; lack of skill and preparation were obvious.
- ② if there were few technical errors in the demonstration and they were of a minor nature and had little impact on the accomplishment of the objectives; the instructor presented a complete picture of the OJT to be conducted and related the lesson to the overall performance of the system/function.
- ③ if there were no technical errors in the instructor's demonstrations to the trainees and safety precautions/limitations were emphasized and the OJT was related to the overall performance of the system/function.

C-8L

C-8R

SCHEDULING AND COORDINATION

⑧ Did the instructor provide adequate training time to allow for proficiency of skill performance?

REVIEW REQUIREMENTS

⑧ Did the instructor provide adequate training time to allow for proficiency of skill performance?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as a:

- ① if the instructor failed to coordinate adequate scheduling of trainees to allow for proficiency of skill performance. Additional practice time was required.
- ② if the instructor provided scheduling and coordination of trainee(s) in the OJT session, but failed to provide sufficient practice time to ensure skill mastery; supervision, guidance, and reinforcement were generally available.
- ③ if the instructor provided acceptable scheduling and coordination of trainees during the OJT session to permit adequate practice; and sufficient supervision, guidance, and reinforcement were provided.



### OJT SUMMARY

- C.9 Did the instructor adequately summarize the OJT and leave the trainees with a clear picture of remaining requirements for satisfactory completion of the objectives?

### REVIEW REQUIREMENTS

- C.9 Did the instructor adequately summarize the OJT and leave the trainees with a clear picture of remaining requirements for satisfactory completion of the objectives?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### SCORING GUIDANCE

Score this question as a:

- ① if the instructor did not summarize the OJT lesson or provide adequate guidance and feedback.
- ② if the instructor provided a brief summary of the lesson that communicated the requirements for successful training completion, including a safety discussion.
- ③ if the instructor presented a comprehensive summary of the subject matter and provided the trainees with a complete briefing of OJT objective requirements and a schedule for completion, and related safety precautions were reinforced in the summary and emphasized prior to the training session.

## APPENDIX D

### TRAINING OBSERVATION CHECKLIST (SIMULATOR SESSION)

If a simulator session is selected for observation, this checklist is to be used in support of Question 3.9, which states,

"Is training being conducted in an adequate manner?"

#### CHECKLIST INSTRUCTIONS

Score each question of this checklist after observing the conduct of the entire session. Enter the score for each question in the appropriate space under SCORING SUMMARY on page D-1R.

### SUMMARY SCORING SHEET FOR TRAINING OBSERVATION CHECKLIST "D" (SIMULATOR SESSION)

DATE- \_\_\_\_\_

INSTRUCTOR- \_\_\_\_\_

LESSON TITLE- \_\_\_\_\_

PLANNED LENGTH- \_\_\_\_\_

#### SCORING SUMMARY:

QUESTION	AREA	SCORE ASSIGNED (Circle one)		
D.1	Timing, Pace, and Orientation	1	2	3
D.2	Introduction and Simulator	1	2	3
D.3*	Structure and Content	1	2	3
D.4	Facility Support	1	2	3
D.5	Control and Flow	1	2	3
D.6*	Demonstrated Technical Competence	1	2	3
D.7*	Completeness and Accuracy	1	2	3
D.8	Scheduling and Coordination	1	2	3
D.9	Simulator Summary	1	2	3
TOTAL SCORE		_____		
AVERAGE SCORE FOR THIS OBSERVATION (to the nearest tenth)		_____		

\* = Major area. A score of ① for these questions indicates that the overall conduct of training (as evidenced by this observation) is unsatisfactory

TIMING, PACE, AND ORIENTATION

- (D.1) Did the instructor present the simulator training in a well-paced, coherent fashion within the allotted time with sufficient attention to security, equipment, and orientation?

REVIEW REQUIREMENTS

- (D.1) Did the instructor present the simulator training in a well-paced, coherent fashion within the allotted time with sufficient attention to security, equipment, and orientation?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as a:

- ① if simulator training fell well outside planned duration (greater than 20%), or the instructor exhibited no time sense during presentation with negative effect on teaching and trainee acceptance of materials or no facility orientation was provided.
- ② if simulator training fell outside of expected duration by 15-20% with an allowance for questions and orientation to facilities was adequate.
- ③ if simulator training was presented within the allotted time with ample, but not excessive, time for questions and orientation to facilities was adequate.

D-2L

D-2R

### INTRODUCTION AND CONTEXT

D.2 Did the instructor inform the class of the simulator objectives, context, and structure?

### REVIEW REQUIREMENTS

D.2 Did the instructor inform the class of the simulator objectives, context, and structure?

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

### SCORING GUIDANCE

Score this question as a:

- ① if the instructor failed to provide an adequate level of simulator introduction or miscommunicated the overall intent, structure, or context of the training with a negative effect on the ensuing instruction.
- ② if the instructor outlined the simulator training in general or generic terms and provided sufficient direction for the ensuing instruction; the course context of the training was adequately explained and the training was related to preceding or following sessions.
- ③ if the instructor provided the trainee(s) with a meaningful and complete instructional context for the simulator with reference to the overall course objectives; the training was outlined prior to the presentation and the structure was explained in detail.

D-3L

D-3R

STRUCTURE AND CONTENT

D.3\* Did the instructor adhere to the content and structure of the exercise guide/lesson plan?

REVIEW REQUIREMENTS

D.3\* Did the instructor adhere to the content and structure of the exercise guide/lesson plan?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SCORING GUIDANCE

Score this question as a:

- ① if the instructor failed to utilize the exercise guide (lesson plan) and, as a result, major errors of omission occurred within the presentation; data required for ensuing training was not covered as required.
- ② if the instructor utilized the outline of the exercise guide; any departures into other subject areas were based upon a need to support exercise guide objectives; the exercise suffered from only minor deviations in the level and content of the presentation by the instructor.
- ③ if the instructor kept to the outline of the exercise guide, departing only to demonstrate related concepts/responses or to maintain class interest/attention; all subject areas were covered at a level commensurate with the intent and data presented in the exercise guide.

D-4L

D-4R

#### FACILITY SUPPORT

- ④ D.4 Did the instructor use the simulator training facility in a satisfactory manner to support the achievement of the knowledge and skill requirements as specified in the lesson objectives?

#### REVIEW REQUIREMENTS

- ④ D.4 Did the instructor use the simulator training facility in a satisfactory manner to support the achievement of the knowledge and skill requirements as specified in the lesson objectives?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### SCORING GUIDANCE

Score this question as a:

- ① if the instructor was unable to coordinate trainees with the simulator features and capabilities and failed to support the achievement of skill objectives in the exercise.
- ② if the instructor presented the simulator training in a manner which supported the effectiveness of the lesson and the instructor provided sufficient coordination of trainees and equipment.
- ③ if the instructor was poised and professional in his coordination of the facilities (e.g., temperature, lighting, space) and adequate time with the equipment was provided to satisfy skill requirements.

### CONTROL AND FLOW

D.5 Did the instructor maintain control of the class and the instructional flow?

### REVIEW REQUIREMENTS

D.5 Did the instructor maintain control of the class and the instructional flow?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_

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### SCORING GUIDANCE

Score this question as a:

- ① if control was never gained by the instructor and the session deteriorated or time on equipment was inadequate to achieve expected skill level.
- ② if the lesson was affected in only a minor fashion by loss of control and the end goals of the training sessions were attained.
- ③ if the instructor was in control of the simulator training session throughout its conduct; effective coordination of trainees and equipment was evident; related safety precautions and warnings were presented and a safety awareness/attitude was instilled in the trainees.

DEMONSTRATED TECHNICAL COMPETENCE

D.6\* Did the instructor exhibit a level of technical knowledge adequate to satisfy the requirements of the subject matter?

REVIEW REQUIREMENTS

D.6\* Did the instructor exhibit a level of technical knowledge adequate to satisfy the requirements of the subject matter?

NOT AT ALL  
GENERALLY  
COMPLETELY

COMMENTS: \_\_\_\_\_

1 2 3

SCORING GUIDANCE

Score this question as a:

- ① if the instructor did not seem to possess a technical skill level which would allow successful completion of the simulator training.
- ② if the instructor's grasp of the subject matter was adequate to address the level of detail in the exercise guide; the instructor was able to demonstrate his detailed knowledge to a level understandable by the trainee(s).
- ③ if the instructor exhibited a complete and thorough grasp of the subject matter and was confident enough in this skill to be able to demonstrate it in an understandable fashion on the simulator equipment; questions within the scope of the simulator training were answered correctly and completely; questions outside the scope of the simulator training were referred to offline discussion.



#### COMPLETENESS AND ACCURACY

- (D.7\*) Was the simulator training session, as presented, technically complete and were the skill expectations understandable?

#### REVIEW REQUIREMENTS

- (D.7\*) Was the simulator training session, as presented, technically complete and were the skill expectations understandable?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

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#### SCORING GUIDANCE

Score this question as a:

- ① if technical errors by the instructor were of such a severe and widespread nature that trainee confidence and instructor credibility could not be maintained; lack of skill and preparation were obvious; technical errors in the demonstration resulted in confusion and uncertainty in the trainee(s); errors of an obvious nature were made and resulted in the erosion of instructor credibility.
- ② if there were few technical errors in the demonstration and they were of a minor nature and had no impact on the accomplishment of the objectives; the instructor presented a complete picture of the function or system and related the exercise.
- ③ if there were no technical errors in the instructor's implementation of the simulator exercise and the instructor presented an integrated picture of the function(s)/systems(s), including their effect on the overall performance of the system(s)/plant.

SCHEDULING AND COORDINATION

- ⑧ D.8 Did the instructor provide adequate simulator training time to allow for proficiency of skill performance?

REVIEW REQUIREMENTS

- ⑧ D.8 Did the instructor provide adequate simulator training time to allow for proficiency of skill performance?

NOT AT ALL  
GENERALLY  
COMPLETELY  
1 2 3

COMMENTS: \_\_\_\_\_  
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SCORING GUIDANCE

Score this question as a:

- ① if the instructor failed to coordinate adequate scheduling of trainees on the simulator equipment or to allow for proficiency of skill performance.
- ② if the instructor provided scheduling and coordination of trainee(s) in simulator training session so as to provide, in general, sufficient practice time to ensure mastery of skill and instructor supervision, guidance, and reinforcement were generally available.
- ③ if the instructor provided scheduling and coordination of trainees in the simulator training session to permit adequate practice by all trainees and supervision, guidance, and reinforcement were always provided when required by the trainee(s).

#### SIMULATOR SUMMARY

- ⑨ Did the instructor adequately summarize the simulator training and leave the trainees with a clear picture of remaining requirements for satisfactory objective completion?

#### REVIEW REQUIREMENTS

- ⑨ Did the instructor adequately summarize the simulator training and leave the trainees with a clear picture of remaining requirements for satisfactory objective completion?

NOT AT ALL  
GENERALLY  
COMPLETELY

1 2 3

COMMENTS: \_\_\_\_\_

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#### SCORING GUIDANCE

##### Score this question as a:

- ① if the instructor did not summarize the exercise or provide adequate guidance and feedback to trainees.
- ② if the instructor provided a brief summary of the lesson that generally communicated the requirements for successful simulator training completion, including safety discussions.
- ③ if the instructor presented a comprehensive summary of the subject matter and provided the trainees with a complete briefing of simulator training and objective requirements and schedule for completion; related safety precautions were reinforced in the summary and emphasized prior to the training session.

## **SCORING SUMMARY**

# SCORING SUMMARY

SECTION	CRITICAL CHARACTERISTICS SCORED AS ①	AVERAGE SCORE (to nearest tenth)
1 (Systematic Analysis of Jobs to be Performed)		
2 (Development of Learning Objectives)		
3 (Design/Implementation)		
4 (Trainee Evaluation)		
5 (Program Evaluation)		

## **GLOSSARY**

## GLOSSARY

- CONDITIONS - On-the-job conditions that significantly influence performance of a task (i.e., "given that the reactor coolant system is at normal operating temperature and pressure").
- CUE - Event that determines, in the job situation, when the job incumbent performs a particular task (i.e., "when the tank high level alarm is activated").
- ENABLING LEARNING OBJECTIVE - Learning objective related to the skills and knowledge that enable the trainee to perform a given task.
- INSTRUCTIONAL SETTING - Environment in which learning occurs.
- LEARNING OBJECTIVE - Precisely what is to be learned in terms of the expected trainee performance under specified conditions to accepted standards; terminal learning objective.
- LESSON PLAN - Structured outline that ensures consistency in instructor presentation and evaluation of trainee performance.
- STANDARDS - Criteria or standards of performance of a task that separate "acceptable" from "unacceptable" job performance (i.e., "tank level must be maintained between high and low level trip set points").
- SYSTEMATIC - Consisting of a logically ordered set of steps; clearly documented so that it can be executed with consistent results on different occasions by different personnel; requiring a physical record (e.g., signature) of external review/approval for historical accountability; and resulting in a consistently formatted, quality product where applicable.
- TASK - Unit of work that describes the performance of a complete meaningful function in a job.
- TASK ANALYSIS - Process of identifying the skills and knowledge that are necessary for a job incumbent to adequately perform assigned tasks.
- TERMINAL LEARNING OBJECTIVE - Learning objective directly related to the performance of a particular job task.