

ADDENDUM A
COORDINATOR GUIDE

U.S. Department of Energy
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5480.20 Training Seminar Series:
"Table-Top Job Analysis"
Coordinator Guide

March 1994

FOREWORD

The table-top process is a method of job analysis in which a team of subject-matter experts--job incumbents, engineers, supervisors, and other experts as applicable--and instructional technologists meets to identify the tasks performed in a specified job position. The task list serves as the basis for determining the content that should be included in the training program.

To coordinate the table top job analysis (TTJA) seminar, someone at the facility must be designated as the "Coordinator," who is responsible for making the necessary pre-seminar arrangements. **This *Coordinator Guide* is for use by the facility-designated Coordinator.** It will help the Coordinator organize a successful TTJA seminar by providing an overview of TTJA and step-by-step directions and easy-to-use checklists and examples needed to fulfill all Coordinator responsibilities.

The 3-day TTJA seminar helps the facility develop a valid task list and select tasks for training, as reflected in the seminar's terminal objective:

"Using the Table-Top Job Analysis process, participants will DEVELOP a task list and SELECT tasks for training that meet the intent of DOE Orders 5480.18A and/or 5480.20."

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HOW TO USE THE COORDINATOR GUIDE

Thank you for serving as the "Coordinator" for organizing the 3-day seminar titled "Table-Top Job Analysis" (TTJA). Your role is crucial to the success of the seminar; a success which in turn will promote the quality and usefulness of the seminar end product: a task list that will serve as the basis for training program content. Your participation as Coordinator will help your facility efficiently and cost-effectively meet the requirements of DOE Order 5480.18A and/or 5480.20.

This *Coordinator Guide* provides step-by-step directions, easy-to-use checklists, and examples to help you prepare for and follow-up after the seminar.

This Guide is divided into three segments:

<u>Segment</u>	<u>Topic</u>
1	How Do You Know if You Need the TTJA Seminar?
2	Directions for Completing Each Item on the Coordinator Checklist
3	Coordinator Checklist

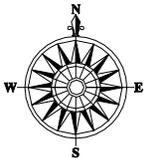
Feel free to write in this Guide and use it as a note-taking tool. Your facility will be given a master set of all TTJA seminar materials from which you can make clean copies for future TTJA seminars. An extra "TTJA Planning Sheet" and "TTJA Checklist" are provided in the pockets of this Guide for your use. You may also want to keep additional notes and memos in the pockets so you will have a complete record of your work as you organize the seminar.

SYMBOLS

Symbols are used in this Guide to alert you to important activities or points.



This symbol denotes a checkpoint where you will apply the information in the segment to your specific needs.



If you see this, read the directions.



This symbol means read the text.



This symbol means to write your response in the space provided or take the action specified.



When you see this symbol, we'll recap previous information.

SEGMENT

1



Learning objectives and evaluations are based on the task list, so training is effective and efficient



The end product of TTJA is a valid task list with tasks selected for training

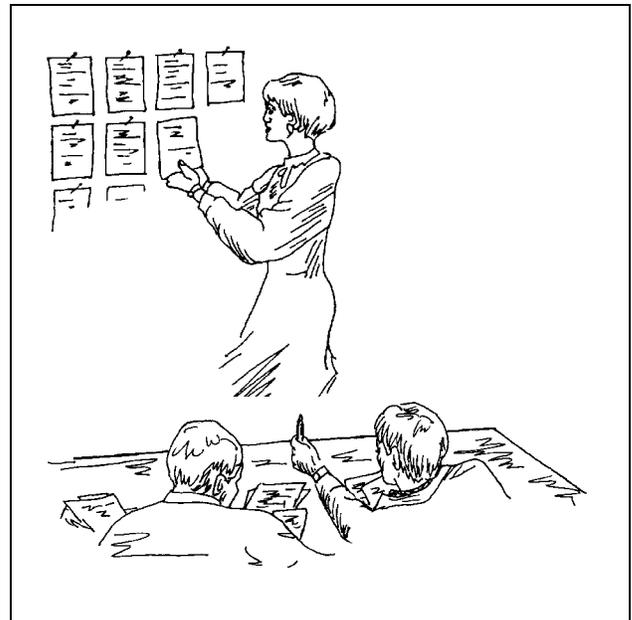
HOW DO YOU KNOW IF YOU NEED THE TTJA SEMINAR?

WHY CONDUCT JOB ANALYSIS?

Job analysis results in a valid task list which serves as the basis for objectives that job incumbents learn and perform in a formal training program. This analysis ensures that job incumbents learn exactly what is needed to perform their jobs safely and competently without spending too much time in training (learning things irrelevant to their job) or too little time in training (not learning everything they need to know, or not having their performance of tasks evaluated before working in the field). Basing a training program on a valid task list leads to more productive, safe, and competent job performance.

WHAT IS THE PURPOSE OF THE TTJA SEMINAR? WHAT ARE THE PRODUCTS?

Table-top job analysis includes a team of subject matter experts (SMEs) and a supervisor that meets in a workshop to identify a list of tasks performed in a specific job and to determine which of those tasks should be included in the formal training program. A Facilitator guides the team through the process and writes and posts the task statements on a wall or other easy-to-see surface. The end product of the seminar will be a valid list of tasks selected for training for that one job position.





TTJA Steps

1. Orient team (training portion)
2. Review job
3. Identify duty areas
4. Identify tasks
5. Sequence tasks and duty areas
6. Select tasks for training

The 3-day TTJA seminar includes a 1/2-day "training portion" (participants learn the TTJA terms and steps) and 2-1/2 days of "workshop" (participants apply what they learned as they perform each TTJA step).

WHO SHOULD BE INVOLVED?

TTJA is usually conducted for one job position at a time. A **job position** involves all the activities assigned to one individual. Numerous individuals may be employed with the same job position (though not necessarily the same job title).

Examples of job positions include:

- Health Physics Technicians
- Chemistry Technicians
- Reactor Operators
- Tank Farm Operators
- Distribution and Inspection Operators
- Hazardous Waste Management Technicians
- Pipefitters

The people who would be involved in a given TTJA session would be those SMEs and a supervisor who are familiar with the specific job position being analyzed. The SMEs would include job incumbents and/or engineers who understand the design of facility systems (as applicable). Depending on the job, SMEs from similar facilities might also participate. For example, if you want to base a "Health Physics Technician" training program on a valid task list, you would invite 2-4 Health Physics Technicians, 1 of their immediate supervisors, and, as applicable, 1-2 other facility Health Physics SMEs to participate in the TTJA seminar. You would not want to invite 1 Health Physics Technician, 1 Chemistry Technician, and 1 Reactor Operator to participate as team members in one TTJA seminar. These are very different jobs, so the



The TTJA process will satisfy requirements of DOE Orders 5480.18A and/or 5480.20

people on the team would not be able to work together productively to develop a list of "Health Physics Technician" tasks.

WHEN IS THE TTJA SEMINAR APPROPRIATE FOR YOUR NEEDS?

When you are responsible for developing or revising a job-specific training program using a systematic approach to training and:

1. No training program currently exists for the job position, or
2. There is an existing training program for the job position but it is not based on a current, valid task list,

then this seminar is for you.

The table-top process, when used properly, has proven to be a more efficient, cost-effective method for developing a task list than traditional job analysis methods such as survey questionnaire or observation. It is effective as a stand-alone process and when used in combination with other job analysis methods such as verification analysis (using another facility's task list as a basis for your own) and document analysis (reviewing procedures or other documents to determine tasks). This TTJA seminar combines the table-top approach with verification analysis and documentation analysis.



Coordinator's responsibilities

WHAT IS THE COORDINATOR'S ROLE IN TTJA?

As the Coordinator, your role is to make the necessary pre-seminar arrangements, such as selecting TTJA team members, gathering job-related information for use during the seminar, and scheduling the seminar meeting room. The Coordinator may or may not act as the Facilitator of the seminar.



Summary

1. TTJA involves a team of SMEs (job incumbents, engineers, etc.) and supervisors who identify the tasks involved in one specific job position. An instructional technologist should also be involved, usually in the role of Facilitator.
2. The valid list of tasks selected for training serves as the basis for training program content.
3. The Coordinator's role is to arrange the 3-day TTJA seminar by completing this Coordinator Guide.



Checkpoint



Who initiated the request for the 3-day seminar?

Name

Phone



For which job position will your facility be developing a task list during the 3-day TTJA seminar?



Is there an existing task list at your facility for this job position or a similar job position?



Does your facility have well-written procedures that describe task performance?

SEGMENT

2



DIRECTIONS FOR COMPLETING EACH ITEM ON COORDINATOR CHECKLIST

Directions

USE THE YELLOW PLANNING SHEET AND CHECKLIST TO PREPARE FOR AND FOLLOW-UP THE TTJA SEMINAR.

Read the information in **THIS SEGMENT** to obtain **DETAILED EXPLANATIONS** of each item on the checklist.

NOTE: It will not require a full-time effort for 30-90 days to complete these items, but it will most likely require 30-90 days for adequate leeway in scheduling participants and a meeting room.

30-90 DAYS PRIOR TO TTJA SEMINAR

NOTE: The items listed in this section will typically be completed concurrently rather than sequentially.



Item 1: Identify Potential TTJA Participants

TTJA involves a team of SMEs and supervisors and a Facilitator (usually an Instructional Technologist). You may invite observers to learn the TTJA process.

The team members (SMEs and supervisors) use their technical expertise to determine the task list. The same team members should participate throughout the entire TTJA seminar. The ideal TTJA team is composed of 2-5 SMEs and 1 immediate supervisor. TTJA should be conducted with enough team members to fairly represent the workers involved in a job position and to allow group interaction. If there are so few job incumbents in the position being analyzed that a facility cannot commit at least three members, perhaps people from a neighboring facility who have similar job positions could provide additional team members. For example, a TTJA team for Laboratory Technicians at Savannah River Site might consist of laboratory technicians from S-Area, H-Area, and K-

Size of team

Number of observers

Area. It is best to select 5-8 people so that if one or two people cannot participate at the last minute, the team will still be functional.

The people responsible for developing the subsequent training materials should facilitate or at least observe the process. Other people who wish to learn how to conduct the process should also observe. **NOTE:** We suggest you do not invite more observers to attend than you have as team members. For example, if there are 4 team members and 9 observers, the team members may feel uncomfortable, like they are "on trial," and this may reduce their effectiveness on the team. If there are 4 team members, invite 4 or fewer observers.

One of the most critical aspects for organizing a TTJA seminar is selecting the most appropriate team members. The quality of team interactions and thus the end product--the task list--will depend heavily on the people selected. After discussions with management, select team members based on the qualifications described below.

Subject Matter Experts (SMEs)

Who are SMEs?

In the context of this seminar, the term **subject matter experts** typically means the actual job incumbents of the job position being analyzed and, as applicable, engineering personnel responsible for the design and safety analysis of facilities/activities. In some cases there may be no expert job incumbents (e.g., when determining training requirements to teach people a new system/process). In this case, the SMEs may consist of engineering and design personnel or perhaps experts from other facilities who may be familiar with that system/process.

Job incumbent qualifications

- | |
|--|
| <p style="text-align: center;">Job Incumbent Qualifications</p> <ol style="list-style-type: none"> 1. Full-time employee in job being analyzed 2. Perceived as the "role model" for proper job performance 3. Highly skilled and knowledgeable regarding the tasks 4. Aware of new procedures, equipment, and "lessons learned" |
|--|

Job Incumbents

Expert job incumbents are in the best position to explain "what they do." Therefore, the job incumbents selected as TTJA team members should be full-time employees in the job being analyzed. Being full-time helps ensure their knowledge of and

Engineer
qualifications

familiarity with all aspects of the job. They must be technically competent and perceived as "role models" for proper job performance. They must be highly skilled and knowledgeable regarding the tasks required to perform the job, and aware of current developments such as new procedures, new equipment, as well as facility and industry "lessons learned." Many years of employment does not necessarily qualify a person as a competent TTJA member.

Engineers

As applicable, engineers should be selected based on their knowledge of how the facility systems are designed and should be operated. They must also be familiar with the tasks involved in the job position being analyzed and have a good working relationship with the job incumbents.

Other SMEs

If the TTJA seminar is being conducted for a job that is performed in more than one facility at a site, then you might want to consider broader-based "job representativeness" as an additional selection criterion. For example, the Health Physics Technician job position is common in the DOE community. If TTJA is being conducted at the Oak Ridge National Laboratory for the Health Physics Technician job, then the team might consist of representatives from Y-12, X-10, K-25, etc. (assuming one master task list for this job position will be used throughout ORNL). Additionally, if two or more DOE sites choose to save money by sharing a task list for a common job position, the TTJA team might also have representatives from Paducah and Portsmouth.

Supervisor
qualifications

Supervisors

Supervisors should be those who directly supervise the job incumbents performing the job being analyzed. Supervisors who have had recent practitioner-level experience in the job can provide useful insights into the job being analyzed and can provide continuity to the process since

Supervisor Qualifications

1. Directly supervise the job incumbents who perform the job being analyzed
2. Recent practitioner-level experience in the job
3. Good working relationship with job incumbents serving on team

CAUTION

they know what is considered "desirable" worker performance. Supervisors also help filter the tendencies of some job incumbents to include managerial or other higher-level tasks that job incumbents do not actually perform. The caution is to make sure the supervisors have a good working relationship with the job incumbents so the SMEs on the team will not feel hindered or threatened when describing their jobs. The supervisor selected to participate on the team must be someone who will listen to and consider the contributions of all team members, even though the supervisor may disagree on some discussion points. The entire team must be able to come to consensus on decision points, without the supervisor's opinion carrying more weight than the other team members'.

In addition to the technical competence required of the SMEs, supervisors, and engineers, there are some interpersonal skills they must all possess:

Interpersonal Skills Required by all Team Members

- the ability and willingness to clearly describe the tasks they perform in a precise and accurate way
- the skill of listening respectfully to the views of others and participating effectively in group discussions without dominating or being dominated
- the disposition toward not overreacting to criticism or having their contributions analyzed/reorganized
- the disposition toward being a team player who believes in the TTJA process and who wants to participate in the process (this excludes people who are "sent" without explanation or are simply assigned by their supervisor to "fill a seat" on the team)
- the ability to be open-minded and free from biases related to training methods, training time, and trainee qualifications

Qualifications for all team members

Facilitator

Facilitator's Role

The Facilitator's role is the TTJA process expert who facilitates the TTJA steps but does not provide technical input toward the task list. Two people usually serve as Facilitators, alternating between

"Facilitator" and "Co-Facilitator." Facilitators must have technical expertise in conducting job analysis and expertise in the table-top analysis method. Preferably, Facilitators will be qualified to facilitate TTJA through training and practical experience. In the context of this 3-day seminar, the Facilitators must also possess strong instructional skills in order to teach the lessons on the first day dealing with TTJA, nominal group technique, and consensus decision-making.

A successful TTJA seminar hinges on the Facilitator's successful use of (a) interpersonal skills, (b) special facilitating skills, and (c) expertise in the entire Systematic Approach to Training (SAT) process.

Facilitator
qualifications

Interpersonal Skills Needed by Facilitator

- FLEXIBILITY!!!
- the ability to establish and maintain enthusiasm -
- patience
- the ability to display and maintain a positive image
- a high degree of sensitivity to both verbal and nonverbal communication
- excellent memory
- a sensitivity to others
- a sense of humor
- the ability to make decisions
- excellent listening skills
- the ability to display warmth and establish rapport quickly with team members
- the ability to motivate, encourage, and focus team members

Special Skills Required of TTJA Facilitators

- expertise in job analysis processes
- expertise in the table-top analysis method
- skill in questioning techniques
- the ability to act as a process expert who leads and controls the process but allows team members to act as content experts who make content judgments and decisions
- skill in small-group dynamics
- skill in obtaining small-group consensus
- the ability to establish and maintain the team's pace, balance, and participation
- the ability to recognize vague statements and help the team select the most appropriate action verbs, task statement modifiers, and nouns

Who are
"observers"?

When selecting a TTJA Facilitator, you must carefully compare a candidate with the checklist of interpersonal skills as well as the special skills listed above. At a minimum, the candidate should be extremely familiar with the job analysis and task analysis processes and possess excellent facilitation skills. Someone who is flexible and can adjust to changing needs is crucial. Because of the importance of the Facilitator, if the right person cannot be found, you may consider using outside experts who have been trained in this particular TTJA process.

Observers

Several types of people might be interested in observing the 3-day seminar. Most important are those who will be required to develop the training materials based on the task list that will be produced during the seminar. These "developers" should attend the entire 3 days, taking notes on the many training-related discussions. Observing will also help them follow through with follow-on SAT steps.

Other training staff from your facility training department may want to learn how to conduct future TTJA seminars and would therefore benefit from observing the process. These trainers should participate during the "training" portion and then observe during the "workshop" portion. To gain TTJA facilitation experience, the Facilitator may ask these trainers to co-facilitate portions of the seminar.

Procedure writers from your facility may also benefit from observing the seminar. Since procedures should be based on the tasks required for competent job performance, this provides an excellent base for ensuring that all procedures are written as needed, are based on current information, and have buy-in from the job incumbents.

People from other DOE facilities may also be interested in observing to see how the process can be used at their own facility. This has helped save time and money throughout the DOE complex. One caution, however, is that having observers from other facilities may promote an unhealthy feeling of "competition" with your facility. Be careful to set a positive tone when inviting observers from other facilities, and the Facilitator should be careful to explain the role of observers.



*With whom
must you seek
approval?*

Name Phone

Item 2: Secure Management Approval

It is important for you to personally, if possible, explain the TTJA process to all affected management levels and obtain their commitment to the planned TTJA seminar. If you cannot do this in person, make the necessary contacts by phone.

NOTE: Securing management approval has been shown to be critical. Without management support for allowing the team members to participate the entire time, uninterrupted, then the seminar may not be completed within the allotted time and the results may not be completely valid. Recognize, however, that management may be reluctant about this process at first. They may have previously experienced traditional job analysis methods, where much SME time was requested to participate in surveys, interviews, and other methods. You will need to be sensitive to this and help management understand that this process requires only 3 days of full-time commitment by a handful of SMEs and supervisors and it will result in an immediate product--a valid list of tasks selected for training that will serve as the foundation for training program content.

Your discussions with management should include topics such as:

1. *Why job analysis is beneficial and why the Table-Top process produces fast results.* Use Segment 1 of this Guide to explain the necessity of job analysis. Point out that in order to meet DOE Orders 5480.20 and 5480.18A (if applicable), the training program content for the (name of job position being analyzed) should be based on a valid task list.

Possible People to Contact

1. Your management for approval of your participation as Coordinator
2. Operating organization(s) management that employs people in the job being analyzed
3. The managers who can release expert job incumbents and their supervisors for participation in the seminar
4. Training organization management responsible for associated training program

2. *Purpose of Seminar.* Explain that during a 3-day TTJA seminar, the task list will be developed and, at the same time, facility training staff will learn how to conduct future table-top job analyses for other training programs that must meet the Orders.

3. *Agenda.* An agenda for the 3-day seminar is shown on the next page.

4. *Who Needs to be Involved.* Using the information from the previous section, explain that the seminar must involve a special mix of people who must be allowed to participate, uninterrupted, for the entire 3 days:

- 2-5 SMEs
- 1 supervisor
- 1 coordinator
- 2 facilitators
- 1-5 observers

In addition, 1 manager from the operating organization needing the task list should conduct a brief (1-2 min.) welcome during the "Introduction" lesson on the first morning of the seminar. This person should welcome the team officially, thank the team members for their participation, and recognize the importance of the team's contributions in the seminar. The operating organization management should drop-in periodically throughout the seminar to see how it is progressing. Especially toward the end of the seminar, management should observe long enough to understand the resulting product and express their support for the people who participated in the process.

Ask managers to suggest potential team members based on the "qualifications" described in the previous section. Ask **management** to inform potential team members of the upcoming seminar prior to the time when you invite the team members to participate (refer to Segment 2, Appendix A, for a sample letter management could use to invite participants). This will help alleviate resistance by job incumbents and eliminate rumors about why the job position is being examined.

Item 3: Establish Dates for 3-Day TTJA Seminar

There are several things to keep in mind when selecting the date for the 3-day TTJA seminar.

Solicit suggestions for potential team members and a possible date

Ensure management will be somewhat visible throughout seminar

Have management talk with potential team members in advance



Agenda for Table-Top Job Analysis Seminar

Day 1

8:00 - 12:00 Step 1: Orient Team (training portion)
1:00 - 5:00 Workshop
Step 2: Review the job
Step 3: Identify duty areas
Step 4: Identify tasks

Day 2

8:00 - 5:00 Workshop (cont'd)
Step 4: Identify tasks (cont'd)

Day 3

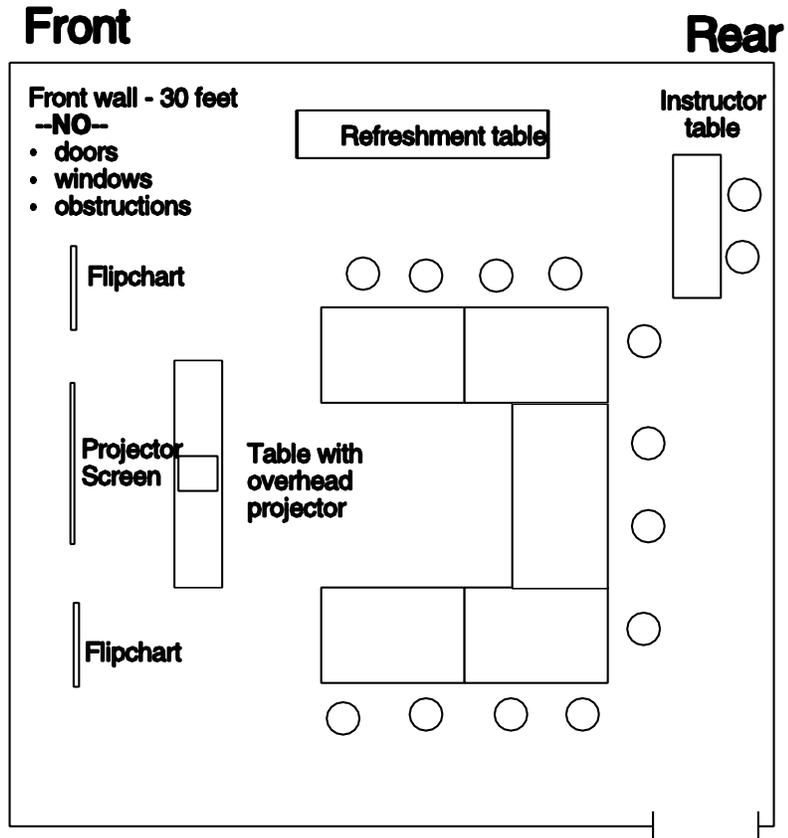
8:00 - 4:30 Workshop (cont'd)
Step 5: Sequence tasks and duty areas
Step 6: Select tasks for training
4:30 - 5:00 Seminar Summary

1. Remember that it may take you up to 30-90 days to complete all Coordinator responsibilities (only part time, of course).
2. When the 3-day TTJA seminar is being delivered by outside experts, you will need to work with them to schedule a date. Tuesday through Thursday may work best to accommodate travel schedules.
3. When seeking management's approval (previous section), ask if they have suggestions for dates that would best accommodate potential TTJA team members (shift schedules, scheduled outages, etc.).
4. Depending on where the seminar will be held and who is invited, consider whether people will need time to transfer security clearances.



In what room will the seminar be held?

Item 4: Select and Schedule Seminar Meeting Room



Check the room to make sure it meets these standards

Make sure there is adequate wall space to post all tasks

Notice the wall surface

Because the TTJA process depends heavily on group dynamics, certain features are required of the room in which the seminar will be conducted. The room should have an unbroken wall surface of at least 30 feet on two walls and should be of sufficient size to comfortably accommodate the team and observers. Since the Facilitator will be writing each task on a separate piece of paper and then posting it on the wall (and there may be literally hundreds of tasks, so it may take more than one wall to post all tasks), there should be no doors, windows, or other obstructions on the TTJA walls.

Notice the surface of the walls. Hundreds of pages will be hung on the wall and moved around, yet the integrity of the wall must be maintained. Are they hard painted walls? Are they corkboard or some other cloth-covered surface? Make a note of the surface so you can tell the

Facilitator which materials will be most appropriate for hanging the pages on the wall (non-marking putty, tape, post-it pads, push pins, staples, etc.). (Refer to the supply list provided later in this segment.) Note: Due to the uneven surface, the folding, accordion-style partition walls will not work for this seminar.

Make sure tables can be arranged as needed

To facilitate interactions during the TTJA seminar, the members should be comfortably seated so they can easily see and hear each other, as well as read items placed on the wall. The best arrangement is to seat team members in a semicircular arrangement. The members should actually face the wall where their ideas will be posted. The tables create work space for the team members. Observers will also need table space and should be seated in the semicircle with the participants during the training portion of the seminar. A small table for supplies should be located at one end of the wall.

Schedule equipment

The room will need to be equipped with a VHS VCR with a monitor or TV, an overhead projector with screen, two flipchart stands with 4 pads of flipchart paper, and one small calculator. The Facilitator will need a portable computer and access to a printer. Make sure you coordinate computer needs with the Facilitator.

Arrange for refreshments, if possible

The Facilitator must be allowed to apply accelerated learning techniques during this seminar. People need to be relaxed, alert, and energized to make the seminar a success. To help with this, arrange for healthful refreshments such as juice, ice water, coffee/tea, fruit, vegetables, crackers, etc. The Facilitator may bring a music system with appropriate music (if this is allowed in the facility).

Check the lighting

There are pros and cons to conducting the TTJA seminar at the facility vs. away from the facility. Holding the seminar on-site is convenient if team members need to refer to procedures, reports, etc., to help them identify the tasks involved in the job. Holding the seminar off-site will help reduce work-related distractions and, if people from outside the facility will be attending, it will reduce the amount of paperwork needed for security clearances. The guiding principle is to select a room that meets the criteria listed above, is conducive to interaction, and is free from distraction. The room should be located in a quiet area and should be well-lighted (no dark shadows on the work tables or on the walls) and well-ventilated. Check the climate control system prior to the seminar.



Team members are the SMEs (job incumbents, engineers, others) and supervisor

Explain these issues to potential team members

Who agreed to participate?

Names



30-60 DAYS PRIOR TO TTJA SEMINAR

Item 1: Contact Prospective Team Members

The best way to inform team members is to meet personally with each potential member, as arranged through the organization management, 30-60 days prior to the seminar. If there is time, this one-on-one technique elicits the best results. Then send a formal invitation (refer to Segment 2, Appendix B, for example).

Team members may be hesitant to make commitments to a new or different experience. Job incumbents, in particular, may fear their jobs are being examined for possible reorganization or lay-offs. To alleviate this fear, organization management should discuss TTJA with all job incumbents prior to your meeting with them. You must also reinforce the purpose for the seminar by explaining to the team members:

1. *The purpose of job analysis.* Use Segment 1 of this Guide to explain to potential team members the purpose of job analysis.
2. *Why they were chosen as potential team members.* Management chose people to participate on the TTJA team because of their expert knowledge of the job and ability to work effectively on the team.
3. *Their role as team members.* The role of team members is to use their technical expertise by working with the team to identify/develop a list of tasks performed in a specific job position.
4. *Date of Seminar.* The 3-day TTJA seminar will be conducted (date of seminar) and management has approved time for team members to participate the entire three days.
5. *Attendance requirements.* If interested in participating, team members must commit to be in attendance throughout the entire seminar. Confirmation letters will be sent 2-3 weeks before the seminar.

Do not ask someone to be a team member if they are obviously not interested in the activity, since that person will probably not be a major contributor and may even be detrimental to the success of the seminar. Do not accept a potential team member if the person cannot make a full-time



Observers are the developers, trainers, procedure writers, others

commitment to the seminar for the 3 days. It is better to select an alternate member than to accept someone who will disrupt the process or destroy the continuity by being there only part of the time.

Item 2: Contact Prospective Observers

The purpose of this 3-day TTJA seminar is to develop a task list for the job position, but it is also to teach the facility training staff how to conduct TTJA. When you discussed this process with training management, you should have solicited names of people to attend the seminar to learn the process. When contacting them, explain that they are invited to attend the entire 3-days, take part in the training portion the first day, and then observe the TTJA process the following two days. The Facilitator may ask them to help facilitate portions of the seminar to help them learn how to conduct the seminar themselves. Training staff will be given a set of all lesson plans, guides, and materials for them to follow along as they observe and to use when conducting future TTJA seminars. (Refer to Segment 2, Appendix C, for sample invitation letter.)



Item 3: Contact Operating Organization Management

Ensure that the operating organization manager who agreed to serve as the "welcoming official" understands he/she should drop in periodically to observe the seminar proceedings. Near the end of the seminar, this person should attend long enough to show visible buy-in of the results. (Refer to Segment 2, Appendix D, for sample invitation letter.)

20-30 DAYS PRIOR TO TTJA SEMINAR



Item 1: Gather/Send Information for Review by Facilitator

You will need to gather job information and send it to the Facilitator at least 20-30 days prior to the TTJA seminar. A list of this information is provided on the next page. Prior to the seminar, the Facilitator will use this information to prepare real-life examples for use during the seminar and to determine if the procedures will be useful to the team when identifying tasks for the position being analyzed. Having this information in advance and during the seminar will greatly enhance the Facilitator's ability to help the team progress through each TTJA step.

Send to the Facilitator:

- the title of the job position/program being analyzed
- a brief job description (job posting)
- the completed TTJA Planning Sheet (refer to Segment 3)
- the existing task list for the job position or a similar job
- a list of all procedures associated with the job
- 3-5 procedures that describe the tasks involved in the job (or all of them, if possible and not too bulky)



Item 2: Confirm Arrangements with all TTJA Participants

The confirmation letter you send to all participants (refer to sample in Segment 2, Appendix E) should include the meeting time and location. Stress that each team member must be present and participate in all portions of the seminar. Each team member must also be on time for all sessions, because people who are late or part-timers who miss some of the orientation or group discussion may seriously disrupt the proceedings. Send copies of these letters to the appropriate supervisors or managers. Remember also to confirm the introduction, observations, and ending by the operating organization manager (welcoming official).

5-10 DAYS PRIOR TO TTJA SEMINAR



Item 1: Call each TTJA Participant

It is highly recommended that you make confirming phone calls to each TTJA participant (team members, observers, and welcoming official) 5-10 days prior to the seminar. This provides them with an opportunity to ask questions and to confirm their plans to attend. If several people must cancel at this time, there is still time to seek qualified alternates.



Item 2: Gather Seminar Supplies

The lists on the next page show all items necessary for conducting the seminar. The Facilitator usually brings the supplies, participant materials, and instructional materials. The Coordinator is usually responsible for having "equipment" and "other" supplies available in the

Supply List (Facilitator will provide)

3 pkg	Plasti-Tac non-marking putty for hanging pages on wall
2 reams	8-1/2" x 11" white paper (unlined)
1 ream	8-1/2" x 11" yellow paper (unlined)
1 pkg	looseleaf notebook paper
10	6" x 4" post-it note pads (unlined)
10	1-1/2" x 2" post-it note pad (unlined)
15	black or blue ink pens
15	yellow highlighters
15	pencils
3 boxes	flipchart markers with permanent, non-bleed through ink in a variety of dark/bright colors (not orange or yellow)
1 set	transparency markers
1 box	whiteboard markers
1	pointer
1 box	push pins or thumb tacks
1	stapler with staples
1 roll	duct tape
2 rolls	masking tape
1 roll (w/dispenser)	scotch tape
2 rolls (w/dispenser)	post-it tape

Participant Materials (Facilitator will provide)

15	name placards
15	Participant Manual (enough for all attendees, including observers)
1 set	Seminar materials for each observer (Coordinator Guide, Facilitator Guide with lesson plans)

Instructional Materials (Facilitator will provide)

Posters
Videotape
Distributed handouts
Overhead transparencies

Equipment List (Coordinator must provide in meeting room)

1	VCR (VHS) with monitor or tv
1	overhead projector
1	overhead projector screen
2	flipchart stands
4 pads	flipchart paper
1	calculator
1	computer and printer (coordinate with Facilitator)

Other (Coordinator must provide in meeting room)

3 copies	available job information (all job-related procedures, system descriptions, process and instrument diagrams, and other materials relevant to the job position)
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meeting room. Coordinate these arrangements with the Facilitator.

DAY BEFORE TTJA SEMINAR



Item 1: Make Final Check of the room, supplies, equipment, refreshments, and all other arrangements. Bring several copies of all documents that may help team members identify tasks (procedures, system descriptions, process and instrumentation diagrams, manufacturer documents, technical specifications, safety analysis reports, operational safety requirements, etc.). Be sure the tables are arranged appropriately.



Item 2: Meet and Review Plans with Facilitator

In addition to ensuring everything is set up appropriately in the room, ask the Facilitator what you should say when introducing the Facilitator during the seminar introduction. The Facilitator should give a brief biography to you for this purpose.



Item 3: Discuss Introductions with Welcoming Official

Make sure the welcoming official (a manager from the operating organization needing the task list) understands what he/she is supposed to say and how long to spend talking during the Introduction (refer to next section). Ask the welcoming official if there is anything special he/she would like you to say when you introduce him/her.

DAY OF TTJA SEMINAR



Item 1: Conduct Introductions

This seminar begins with a series of short introductions:

1. First, you should introduce the welcoming official. The manager should welcome the team officially, thank the team members for their participation, and acknowledge the importance of their contribution in this TTJA seminar. (This should only take 1 minute.)
2. Second, you should introduce the Instructor/Facilitator for this seminar. You should acknowledge the skills required to be a Facilitator and then briefly explain the Facilitator's qualifications and experience according to the biography. (This should only take 1 minute.)

3. Then the Facilitator will introduce him/herself by stating his/her name, where he/she works, what his/her primary job is, and what his/her experience has been in performing table-top job analysis. (This should only take 2 minutes.)

AFTER THE SEMINAR



Obtain from the Facilitator:

1. The cover letter explaining how the task list was developed and who was involved
2. The typed list of tasks selected for training (on disk and a hardcopy signed by team members)
3. The pile of tasks, numbered and labelled to indicate sequence and designation as "non-formal train," "train," "overtrain," and "pre-train"
4. The disk of "content" that was incorporated under each task statement
5. The roster of people who participated
6. If used, the forms used to rate each task for DIF (difficulty, importance, and frequency)



Item 1: Obtain Documentation from Facilitator

Give this information to the appropriate training staff to keep a permanent record of what happened during the seminar, who was involved, and what product resulted. Keep this information since it can serve as auditable documentation for many "reviewers" (e.g., Defense Nuclear Facilities Safety Board, Training Accreditation Program, DOE, etc.) who may want to know how the task list was developed.

Item 2: Complete any TTJA Steps not Finished During Seminar

It is important for you to have attended the entire seminar so you will clearly understand what work (if any) remains after the 3-day

event. For the most part, 3 days should be sufficient to complete the entire TTJA process. (If not, you or the Facilitator may have follow-up work.) At a minimum, the Facilitator will show the team how to complete each TTJA step. However, some job positions within DOE are so complex that the Facilitator may not have time to thoroughly complete

each TTJA step. The following are example situations for which you might need to complete some of the TTJA steps after the seminar:

1. The Facilitator will help the team identify all tasks involved in the job, but due to time constraints, may not have time to help the team refine all of the task statements to the point that they meet the criteria for a "well-written" task statement.
2. The Facilitator will at least start the team in the process of selecting tasks for training, but due to time constraints may not be able to go through the process for every task.
3. If the right mix of people (SMEs and supervisors) is not involved throughout the entire process, the task list may not be considered "valid." Under these circumstances, you would need to conduct a "validation" process to get appropriate signatures on the task list. (Normally there is no need for a separate validation process when appropriate people, as explained in this Guide, are involved.)



Item 3: Send Thank-You Letters

Within 10 working days after the seminar, send thank-you letters to all participants.



REMAINING SAT STEPS

Congratulations! You've come a long way toward helping your facility implement the Systematic Approach to Training (SAT). This TTJA seminar helped your facility perform the analysis phase of SAT. Use the "pre-train," "train," and "overtrain" tasks identified in this seminar to design your training program structure and determine the content of the training program. One approach to the training program design is discussed in the seminar titled "Table-Top Training Design" (TTTD).

Like TTJA, the TTTD seminar helps your facility progress through the design phase of SAT and results in several design products, such as a task-to-training matrix, training program description, and design specifications for each training session. Since you have used a table-top approach to develop the task list, you may want to consider using the same participants in this TTTD seminar to continue building your training program.

CONGRATULATIONS! YOU'VE FINISHED!



APPENDIX A: SAMPLE INVITATION LETTER FROM MANAGEMENT

Date:

To: Distribution

From: *[Name of Operating Organization Manager]*

Subject: PARTICIPATION IN TABLE-TOP JOB ANALYSIS

As a person with a reputation for technical expertise, a positive work attitude, and good interpersonal skills, you have been selected to participate with *[number of people to be invited]* people as a team for a Table-Top Job Analysis (TTJA) Seminar soon to take place for *[name of job position being analyzed]*.

This 3-day seminar is an important step toward building a top-notch training program and ensuring the accuracy of our operating procedures. The table-top approach used in this seminar has proven to be an efficient, cost-effective, and pleasant way to create a task list. The list that your team develops will then serve as the foundation for training program content.

I support your uninterrupted involvement in this 3-day seminar and ask that you ensure its success by contributing your positive energy and subject matter expertise.

If you are able to participate, please contact the Coordinator, *[name and phone number of Coordinator]*. If you have any questions about the purpose or end product of this seminar, please contact *[name of Coordinator]* or myself. Thank you for your cooperation.

Distribution:

cc: *[name of Coordinator]*

APPENDIX B: SAMPLE PARTICIPANT INVITATION LETTER

Date:

To: *[Name of Potential TTJA Participant]*

From: *[Name of Coordinator]*

Subject: PARTICIPATION IN TABLE-TOP JOB ANALYSIS SEMINAR

[Name of Operating Organization Manager] and I invite you to participate in the "Table-Top Job Analysis" (TTJA) seminar *[dates of seminar]* in *[meeting room location]*. *[Name of Operating Organization Manager]* chose you to participate in this seminar because of your expert knowledge of the job and your ability to work effectively with others. You will be part of a team--made up of subject matter experts and a supervisor--that meets in a workshop with a Facilitator to identify a list of tasks performed in the *[name of job position being analyzed]* job and to determine which of those tasks should be included in our formal training program.

This analysis ensures that people learn exactly what is needed to perform their jobs safely and competently without spending too much time (learning things irrelevant to their job) or too little time (not learning everything they need to know or not having their performance evaluated) in training. Basing a training program on a valid task list leads to more productive, safe, and competent job performance.

[Name of Operating Organization Manager] has approved time for you to participate, uninterrupted, the entire three days.

If you are able to participate, please call me at *[phone number]* by *[deadline for responding]*. You must commit to be in attendance throughout the entire 3-day seminar, from *[start/finish time each day, e.g., 8:00 a.m to 5:00 p.m.]* each day. I will send you a confirmation letter 2-3 weeks before the seminar. Thank you for your participation. If you have any questions, please call me.

cc: *[Operating Organization Manager]*
[Name of Participant's Supervisor]

APPENDIX C: SAMPLE OBSERVER INVITATION LETTER

Date:

To: *[Name of Potential TTJA Observer]*

From: *[Name of Coordinator]*

Subject: TABLE-TOP JOB ANALYSIS SEMINAR

A "Table-Top Job Analysis" (TTJA) seminar will be held *[dates of seminar]* in *[meeting room location]*. The objective of this seminar is to develop a valid task list for *[name of job position being analyzed]*. Another purpose of this seminar is to teach people how to conduct TTJA for other job positions. The table-top approach, when facilitated properly, has proven to be a pleasant, cost-effective, efficient method of job analysis. It also provides an excellent baseline for ensuring the accuracy of operating procedures. This particular seminar has received excellent reviews from other Department of Energy nuclear facilities.

If you are interested in learning the TTJA process, you are invited to participate as an "observer" during the seminar. As an observer, you will take part in the training portion the first morning and then observe the TTJA process the following 2-1/2 days. As an observer, you will NOT contribute to the technical content of the task list, though the Facilitator may ask you to co-facilitate portions of the seminar to give you practice conducting the *process*. You will receive a set of study guides and lesson plans to follow along as you observe and to use when conducting future TTJA seminars.

The seminar will begin at *[start time, e.g. 8:00 a.m.]* on *[date of Day 1]* and you will want to participate that entire day. On *[dates of Days 2 and 3]*, you are welcome to observe the entire time, but the Facilitator will inform you that portions of the seminar are repetitive and it will be left to your discretion to determine how much time you observe those days. You are welcome to bring some quiet work for those "repetitive" times or, if you prefer, you can establish agreed-upon times with the Facilitator to leave and return to the seminar.

If you are interested in participating as an observer, please call me at *[phone number]* by *[deadline for responding]*. Seating is limited, so call soon to reserve your seat. I will send a confirmation letter 2-3 weeks before the seminar. If you have any questions, please call me at *[Coordinator's phone number]*.

APPENDIX D: SAMPLE WELCOMING OFFICIAL LETTER

Date:

To: *[Name of Welcoming Official]*

From: *[Name of Coordinator]*

Subject: WELCOMING OFFICIAL FOR TABLE-TOP JOB ANALYSIS SEMINAR

[Manager of Operating Organization] and I invite you to make the opening remarks at the "Table-Top Job Analysis" (TTJA) seminar to be held *[dates of seminar]* in *[meeting room location]* to identify the tasks involved in the *[job position]* job. Your responsibility would be to briefly (2-5 minutes) welcome the team of subject matter experts, job incumbents, and supervisors at *[start time and date, e.g., 8:00 a.m on March 17]*. You might want to include thanking them for their participation and recognizing the importance of their contribution during this seminar.

Toward the end of the seminar, we ask you to observe long enough to understand the results and express your support for the people who are participating and for the process itself. We also encourage you to drop in periodically throughout the seminar to see how it is progressing and to underscore the value of the process. Your positive attitude is crucial to the success of the seminar and the validity of its resulting task list.

The task list developed in this seminar is the basis for objectives in a formal training program which ensures that people learn exactly what is necessary in order to do their jobs safely and competently without spending too much time (learning more than they need) or too little time (not learning all they need to know for safe, correct performance) in training. Basing a training program on a valid task list also provides an excellent baseline for ensuring the accuracy of operating procedures. This seminar has received excellent reviews from other Department of Energy nuclear facilities and has saved them thousands of dollars and hundreds of hours compared to traditional job analysis methods.

If you are able to participate as the welcoming official, please call me at *[phone number]* by *[deadline for responding]*. I will send a confirmation letter 2-3 weeks before the seminar. Thank you for your support.

cc: *[Operating Organization Manager]*

APPENDIX E: SAMPLE CONFIRMATION LETTER

Date:

To: *[Name of Participant]*

From: *[Name of Coordinator]*

Subject: PARTICIPATION IN TABLE-TOP JOB ANALYSIS SEMINAR

This letter confirms your participation in the Table-Top Job Analysis (TTJA) seminar to be held *[dates of seminar]* in *[meeting room location]*. The seminar will begin at *[start time]* each day and conclude at approximately *[end time]* each afternoon. It is important that you are on time and participate in all portions of the seminar because late or part-time participants who miss some of the training or group discussion may seriously disrupt the proceedings. Remember, though, that the seminar will be a pleasant experience. If you would like to share snacks or your favorite music with the other participants, please feel free to bring them with you. If you have any questions, please call me at *[phone number]*. I look forward to seeing you in the seminar!

cc: *[the person's supervisor, as appropriate]*

SEGMENT

3



CHECKLIST OF COORDINATOR TASKS TO PREPARE FOR TTJA SEMINAR

The TTJA Planning Sheet and Checklists are provided on the following pages. The purpose of the TTJA Planning Sheet is to gather information and the purpose of the Checklist is for your use when documenting the completion of each step described in Segment 2. Use the yellow copies of the Planning Sheet and Checklist (located in the pocket of this folder) to document your arrangements as you organize the seminar. We highly suggest you complete these job aids using a pencil. The following pages are for your use if you need to make additional clean copies of the Planning Sheet and Checklist.

As you progress through each task on the Coordinator Checklist, read the information in Segment 2 for examples and step-by-step directions. It is a good idea for you to read through all of the directions at least once so you understand the entire process.

The Facilitator will assume you have completed this checklist before the seminar begins.

Send a copy of this completed sheet to the Facilitator 20-30 days prior to the seminar

TTJA PLANNING SHEET			
BACKGROUND INFORMATION			
1. Who initiated the request for the 3-day TTJA seminar?	Name:	Phone:	
2. For which job position/program will a task list be developed during the 3-day seminar?		3. How many job incumbents are currently employed in this job position/program?	
4. With whom must you seek approval to organize and conduct this 3-day TTJA seminar?			
	Name(s)	Phone	Date Approved
Your management			
Training Management			
Line management who must release SMEs			
Other			
AVAILABLE JOB INFORMATION			
5. Obtain a brief description of the job position/program			Date Sent to Facilitator:
6. Is there an existing task list at your facility for this job position/program? Yes No			Date Sent to Facilitator:
7. Are there well-written procedures and other references that describe the tasks performed in the job position/program?			Date Sent to Facilitator:

TTJA PLANNING SHEET

SEMINAR DATA

Dates of Seminar:		Meeting Room:		
Names of Attendees	Phone	Date of Initial Contact	Date Sent: Confirmation Letter	Date Sent: Thank-You Letter
Facilitator:				
Co-Facilitator:				
SME:				
Engineer:				
Engineer:				
Supervisor:				
Supervisor:				
Observer:				
Organization Manager:				
Other Notes:				

COORDINATOR CHECKLIST

DIRECTIONS: Use the yellow Planning Sheet and Coordinator Checklist to prepare for and follow-up the TTJA seminar. Refer to the information in Segment 2 of this Guide to obtain detailed explanations of each task on the Checklist.

30-90 Days Prior to TTJA Seminar		
Compl. Date	Item to Perform	Notes/Comments
	1. Identify potential job incumbents, engineers, other SMEs, supervisors, facilitators, and observers according to the required qualifications	
	2. Secure management approval and ask management to talk with potential team members about the seminar (Refer to Segment 2, Appendix A, for sample letter)	
	3. Establish dates for the 3-day TTJA seminar	
	4. Select and schedule a meeting room that meets stated requirements	

30-60 Days Prior to TTJA Seminar		
Compl. Date	Item to Perform	Notes/Comments
	1. Contact all prospective team members by phone (or, if possible, in person) to explain TTJA and answer questions (Refer to Segment 2, Appendix B, for sample letter)	
	2. Contact all prospective observers (Refer to Segment 2, Appendix C, for sample letter)	
	3. Contact operating organization manager to see if he/she will act as welcoming official, observe periodically, and attend the end of the seminar (Refer to Segment 2, Appendix D, for sample letter)	

COORDINATOR CHECKLIST

20-30 Days Prior to TTJA Seminar		
Compl. Date	Item to Perform	Notes/Comments
	1. Gather information for review by Facilitator <ul style="list-style-type: none"> - completed TTJA Planning Sheet - title of job position - brief job description (job posting) - existing task list for the job position or for similar job position (if available) - a list of all procedures applicable to the job - copies of 3-5 procedures representative of the tasks involved in the job (send all the procedures, if there aren't too many) 	
	2. Confirm arrangements with all TTJA team members, observers, and the welcoming official by letter, including meeting time and location. Send copies of these letters to the appropriate supervisors or managers. (Refer to Segment 2, Appendix E for sample letter.)	

5-10 Days Prior to TTJA Seminar		
Compl. Date	Item to Perform	Notes/Comments
	1. Call each TTJA participant (including welcoming official) to confirm their involvement and answer remaining questions	
	2. Gather seminar supplies	

COORDINATOR CHECKLIST

Day Before TTJA Seminar		
Compl. Date	Item to Perform	Notes/Comments
	1. Make a final check of the room, supplies, equipment, refreshments, and all other arrangements. Put in the meeting room all procedure manuals and other documents related to the job, such as PRA results, OSRs, Technical Specifications, Safety Analysis Reports, manufacturers documents, etc.	
	2. Meet and review plans with TTJA Facilitator	
	3. Make sure the welcoming official understands his/her role	

Day of TTJA Seminar		
Compl. Date	Item to Perform	Notes/Comments
	1. Conduct Introductions: <ul style="list-style-type: none"> - Introduce welcoming official - Introduce Facilitator 	
	2. Have operating organization manager observe periodically throughout seminar	
	3. Have operating organization manager attend end of seminar for visible buy-in	

COORDINATOR CHECKLIST

After Seminar		
Compl. Date	Item to Perform	Notes/Comments
	1. Obtain documentation from Facilitator	
	2. Complete any TTJA steps not finished during seminar	
	3. Send thank-you letters to all TTJA participants	

Other Notes:

REFERENCES

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3. International Board of Standards for Training Performance and Instruction, *Training Manager Competencies: The Standards*, "Nominal Group Technique."
4. TAP2, Performance-Based Training Manual, U.S. Department of Energy Training Accreditation Program, DOE/NE-0102T, July 1991.
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7. Management and Oversight of PBT Programs Course, DOE Training Coordination and Accreditation Program, DOE/ID-10388, December 1992.
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