

# **Office of Emergency Management Oversight (HS-63)**



## **Emergency Management Limited Scope Performance Test Inspectors Guide**

**March 2008**

## Preface

As part of an effort to enhance the appraisal process, the Office of Independent Oversight and the Office of Emergency Management Oversight (HS-63) have prepared a series of documents that collectively provide comprehensive guidance and tools for the evaluation of emergency management programs across the Department of Energy /National Nuclear Security Administration (DOE/NNSA) complex. The Independent Oversight Appraisal Process Protocols describe the philosophy, scope, and general procedures applicable to all independent oversight appraisal activities. The HS-63 Emergency Management Oversight Appraisal Process Guide describes specific procedures used by HS-63 in planning, conducting, and following up emergency management inspections. This Emergency Management Limited Scope Performance Tests Inspectors Guide provides detailed information and tools to assist inspectors assigned to evaluate the capabilities and performance of emergency responders in DOE/NNSA. Although this guide is designed specifically for the HS-63 inspector, it is made available to the field through the HS-63 homepage and may be useful to field element and facility contractor personnel who conduct surveys or self-assessments of emergency management programs. HS-63 anticipates making periodic revisions to this guide in response to changes in DOE/NNSA program direction and guidance, insights gained from independent oversight activities, and feedback from DOE Headquarters, field offices, and sites, as well as external stakeholders. Therefore, users of this process guide are invited to submit comments and recommendations to the Director, HS-63, at [Steven.Simonson@hq.doe.gov](mailto:Steven.Simonson@hq.doe.gov).

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## Acronyms

|       |  |
|-------|--|
| CP    | Command Post                             |
| DOE   | U.S. Department of Energy                |
| EAL   | Emergency Action Level                   |
| EOC   | Emergency Operations Center              |
| EPHA  | Emergency Planning Hazards Assessment    |
| EPIP  | Emergency Plan Implementing Procedure    |
| ERO   | Emergency Response Organization          |
| HS-63 | Office of Emergency Management Oversight |
| IG    | Inspectors Guide                         |
| LSPT  | Limited Scope Performance Test           |
| MSEL  | Master Scenario Events List              |
| NNSA  | National Nuclear Security Administration |
| PSS   | Plant Shift Superintendent               |
| TA    | Trusted Agent                            |

## Section 1

# INTRODUCTION

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### Purpose

As part of an effort to enhance the appraisal process, the Office of Independent Oversight and the Office of Emergency Management Oversight (HS-63) have prepared a series of documents that collectively provide comprehensive guidance and tools for the evaluation of emergency management programs across the Department of Energy/National Nuclear Security Administration (DOE/NNSA) complex. The Independent Oversight Appraisal Process Protocols describe the philosophy, scope, and general procedures applicable to all independent oversight appraisal activities. The HS-63 Emergency Management Oversight Appraisal Process Guide describes specific procedures used by HS-63 in planning, conducting, and following up emergency management inspections. The information in these documents is not repeated here and, therefore, these documents should be referred to when planning and conducting emergency management program inspections. In particular, the Independent Oversight protocol provides information regarding inspectors' responsibilities and an overview of inspection activities.

HS-63 has supplemented these protocols with an internal training document and a separate inspectors' guide that inspectors can collectively use to plan, conduct, and evaluate emergency management programs and response activities. These tools serve to promote consistency, assure thoroughness, and enhance the quality of the inspection process.

This guide, *Emergency Management Limited Scope Performance Test Inspectors Guide*, provides guidance on planning, conducting, and evaluating emergency response performance tests. These tests are typically used as part of the data collection activities performed during emergency management program evaluations.

### Concept of Performance Tests

The performance test is a useful data collection tool for evaluating emergency management programs. It complements other data collection activities, such as interviews and document reviews, and has some advantages and disadvantages. An advantage is that it can be a fairly simple (and low-resource) method for gaining insight into the adequacy of response planning, responder abilities in implementing required actions, and decision-making capabilities associated with specific situations or types of situations. A disadvantage is that it only tests part(s) of the emergency response and must be carefully conducted to ensure that it provides a valid indication of emergency response organization (ERO) performance (e.g., that the performance is not unduly affected by the limitations of the scenario and scope of participation of the ERO).

Performance tests can be performed in several different ways. For example, a single ERO position or an ERO team (a subset of the entire ERO organization) can participate; in addition, the tests can be suspended to provide training, can be conducted without interruption, or can be interrupted to ask questions of the participants. Unlike site drills, HS-63 typically performs the tests without interruption to afford participants the opportunity to respond without distraction. This guide provides instruction for preparing and conducting performance tests for both individual ERO positions and ERO teams.

### **Organization of Guide**

This introductory section (Section 1) describes HS-63's protocols and this inspection guide in general terms. Section 2 provides detailed guidance for preparing for performance tests, including developing performance test scenarios. Section 3 provides guidance on conducting performance tests, and Section 4 provides guidance on evaluating performance tests.

## Section 2

# PERFORMANCE TEST PREPARATION ACTIVITIES

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### General Information

The preparation for developing, conducting, and evaluating a performance test begins in the initial project planning for a site visit. For example, it is beneficial to identify the purpose of the test and the individual ERO positions and/or ERO teams to be tested in the evaluation plan. A checklist to help in scheduling the development, conduct, and evaluation of the performance test is provided in Attachment 1.

### Purpose and Scope

The purpose and scope of the performance test is selected based on the focus of the HS-63 inspection (site emergency management, transportation emergency management, etc.) and site-specific knowledge of areas of concern from past HS-63, Office of Emergency Operations, or other DOE/NNSA or outside agency evaluations.

The purpose should identify the program element to be evaluated, for example. The description of the purpose of the performance test should clearly indicate that the purpose is not to test an individual's performance but rather to obtain data on the capability (training, equipment, and supporting tools, such as procedures) of a given ERO position.

The scope should identify the type of scenario, the ERO positions) expected to participate, and the number of persons in each position expected to participate (a representative sample should be tested in order to provide an indication of how the ERO function, rather than an individual, performs).

Two sample purpose and scope statements are provided below.

- *The purpose of the performance test is to assess the capabilities of site personnel responsible for initial decision-making to accurately categorize and classify a radiological emergency event in a timely manner as required by the site's emergency categorization and classification procedure(s) and associated emergency action levels. The participants will include personnel from three of the four shifts.*

- *The purpose of the performance test is to assess the development and implementation of a reentry plan in response to a security-initiated chemical release. The participants will include the emergency director, the supervisor of each specialty team in the emergency operations center, and the incident commander. The performance test will be repeated for personnel from two out of four shifts.*

The purpose and scope of the performance tests should be provided to the site prior to the start of the inspection.

**Selection of Program Elements to be Tested**

Virtually any emergency management system position/function can be tested using performance tests. ERO positions and program elements, which are likely candidates for performance tests, are listed in the tables below.

| <b>PROGRAM ELEMENT</b>   |
|--|
| Emergency Response Organization, including: <ul style="list-style-type: none"> <li>• Incident Command</li> <li>• Activation and staffing of the ERO</li> <li>• Senior Energy Official</li> </ul> |
| Protective Actions and Reentry   |
| Categorization and Classification  |
| Consequence Assessment   |
| Notification and Communications  |
| Offsite Interfaces   |
| Emergency Facilities and Equipment   |
| Emergency Medical Support  |
| Emergency Public Information   |
| Termination and Recovery   |

| <b>ERO POSITION or ERO TEAM</b>  |
|--|
| Person responsible for protective action and categorization / classification decision-making |
| Shift Supervisor   |
| Crisis Manager   |
| Plume Modeler  |
| Incident Commander   |
| DOE Emergency Director   |
| Security Supervisor/Shift Lieutenant   |
| Supervisor of Hostage Negotiation Team   |
| Consequence Assessment Team  |
| Recovery Manager   |
| EOC Senior Managers (Emergency Director, Crisis Manager, supervisors of specialty teams)     |
| Incident Command Staff   |
| EOC Security Team  |
| Recovery Team  |
| Joint Information Center Managers  |
| Field Monitoring Teams   |



## Use of Trusted Agent

HS-63 uses a trusted agent (employee of site, contractor or DOE) to assist in: (1) selecting the performance test purpose, scope, objectives, (2) selecting and developing the scenarios, (3) conducting the performance tests, and (4) validating the results. The level of participation by the trusted agent during the conduct of the performance test will be at the discretion of site management. Typically, the site's (lead) trusted agent conducts the test in accordance with the site's standard drill/exercise protocols, while HS-63 observes responder performance and the conduct of the test. During the evaluation of performance, the trusted agent validates the Independent Oversight observations, based on the site's plans, implementing procedures, and organizational structure.

The trusted agent should have detailed knowledge of the site's:

- Hazards surveys and emergency planning hazards assessments (EPHA)
- ERO
- Emergency plan
- Emergency plan implementing procedures.

After the site has nominated a trusted agent, the HS-63 team leader or designee should begin coordinating with the trusted agent as soon as possible in the evaluation preparation process. Attachment 2 contains HS-63 expectations of trusted agent(s). The trusted agent is expected to keep all conversations, documents, performance test planning and development, and other inspection information confidential between the inspection team members and the trusted agent.

The specific activities that the trusted agent may be used for include:

- Collection of site documents, plans, procedures, organizational charts, past exercise scenarios, past exercise evaluation reports, and other related site emergency management information
- Review of and concurrence with the performance test purpose and scope
- Review and validation of, and concurrence with, the performance test objectives, with special attention to ensure that terminology and references are accurate
- Recommendation of facilities of interest and applicable scenarios derived from the EPHA
- Preparation of the performance test (exercise) package, including, for example, development of the master scenario events list (MSEL), timeline, and message injects
- Selection of performance test controllers and persons to simulate other organizations that do not participate
- Schedule performance test participants and coordinate the use of required facilities and equipment
- Conduct or facilitation of the performance test
- Validation of HS-63 observations to ensure that they accurately reflect deviations from the site's emergency management system and expected response actions.

## Scenario Development

### Document Review

Review of site-specific documents will provide the performance test developers the information required to tailor the test specifically to the site being assessed. The following are examples of the type of documents to review and information to be obtained.

**Emergency Plan.** Provides performance test developers the sites' ERO configuration, command and control concept, and identifies site emergency response facilities.

**Implementing Procedures.** Provides implementing details of Emergency Plan concepts and duties and responsibilities for each position.

**Emergency Action Levels.** Provides the event indicators, classifications, and protective actions/protective action recommendations.

**EPHAs.** Provides the scenario selections for the facilities of interest.

**Data Outputs.** Provide information on the methods and units of measure for data outputs. This will include meteorological equipment, field monitoring equipment, and facility radiation and chemical alarms. This information will be used to ensure that the data provided during the performance test is the same as that which will be used during actual event response.

**Plume Model Plots.** Provides developers field data of concentrations of hazardous materials from postulated releases; should correspond with output from consequence assessment and field monitoring operations.

**Past Exercise Evaluations.** Provides developers information needed to develop the final set of performance test objectives to ensure that the corrective action process used at the site is valid.

### Performance Test Objectives

The performance test objectives provide the foundation for the performance test design.

These objectives specify, in measurable terms, the response actions that must be demonstrated to ensure that the purpose of the performance test is accomplished. Objectives should meet the following three criteria:

- *Is the objective attainable?* Throughout the performance test development process, the scenario should be reviewed to ensure that the responders will have the opportunity to successfully demonstrate the objectives.
- *Is the objective clearly stated?* The objective should be as specific as possible, should focus on the specific performance to be demonstrated, and should be interpreted in the same manner by all users. A good check is to ask members of the scenario development team, "What do you expect the responders to do to meet this objective?"
- *Is the objective measurable?* The performance addressed by the objective should have observable and measurable indicators. Specific evaluation criteria should be developed by which evaluators

will measure the performance. Where possible, the objectives should be tied to specific references in the site's emergency plan and procedures.

When developing measurable objectives, the terminology that is used should be precise and carefully selected. HS-63 objectives should be developed to ensure as much subjectivity as possible is eliminated. When tied to plans and procedures and written clearly and with measurable criteria, the resulting evaluation is more standardized and of significant value to the site.

A list of performance test objectives commonly used in HS-63 performance tests is provided in Attachment 3.

### **Scenario Selection**

Possible scenarios are selected from a review of the site's hazard survey(s) and EPHA(s). The scenario reflects current facility/site- or activity-specific hazards, correlates technically with the EPHA, and is technically accurate in terms of operations and radiological, chemical, and meteorological data. The scenario selection is limited to a scenario that can meet the performance test scope and objectives. For example, if the scope includes a person/ERO team with responsibilities for radiological detection and decontamination, a radiological scenario will be selected. If a performance test objective requires protective action recommendations to offsite agencies, a scenario that can generate a General Emergency is selected.

Scenario selection is coordinated with the site trusted agent. This is done to ensure that levels of hazardous materials, operational processes, or other issues have not changed since the publishing of the hazards survey/assessment. The trusted agent will also be able to indicate whether additional safety systems, alarms, or procedures have been instituted. The goal is to ensure accuracy of the selected scenario, its indicators, and associated response.

After the general scenario narrative has been selected and approved, the performance test package can be developed in accordance with site procedures.

### **Performance Test Package**

The test package may include the following components: scenario narrative; timeline of key scenario events, MSEL; and the message injects or cues associated with conveying performance test data, together with expected responder response. When the scope of the performance test is limited to individual ERO positions, the timeline and MSEL are normally combined. The development process is not rigid. Developers may start with any of the three scenario component documents. An example of a scenario package is provided in Attachment 4 for event categorization and classification.

#### *A. Scenario Narrative*

The scenario narrative is a storybook summary of the background, initial conditions, initiating events, and expected player/responder actions through the end of the performance test. It contains descriptions of the simulated emergency situation, including the overall sequence of events, details, supporting data, and timing of activities. The narrative can be useful for management review of the scenario package subsequent to the tests.

#### *B. Timeline or Event Sequence*

The timeline provides the sequence of major events, from the initiating event through the conclusion of the performance test. The timeline is normally used in tests directed towards more than a few ERO participants. The performance test objectives can be tied to the major events, allowing the developers to ensure that opportunities to meet all objectives are contained in the timeline, thus providing the evaluator a specific time / response to watch for specific objectives being demonstrated during the conduct of the performance test.

### *C. MSEL*

The MSEL identifies the timing and summary content of all key events, messages, or injects; contingency messages; and expected responder actions for the duration of the performance test.

A basic methodology for developing the MSEL is to identify the function being evaluated and detail the response in accordance with the emergency procedures, including the information that is required for the responder to take the desired actions. This information is the data that supports the performance test scenario and will be provided in the initial scenario information, cue cards, or earned information.

Determine how the responder receives the data (visual, alarms, radio, telephone, verbal instructions, etc.). For each data input, develop a cue card or message, or tag it to go into the performance test initial conditions that set the scenario stage. Indicate on the MSEL the cue card identification number and the expected response.

### *D. Message Injects and Cues*

Message injects and cues are used to give test participants any data that is needed to support the test scenario—for example, “The west door alarm went off at 7:15,” or “A staff member in Building 311 reported the smell of smoke.” Such statements are developed along with the scenario and, as noted, are indicated on the MSEL. This information is usually conveyed by means of a verbal message, although more sophisticated means may be used.

In addition to scheduled messages, “earned” information is often developed in conjunction with the test. For example, the statement that “A staff member in Building 311 reported the smell of smoke” might be presented *only if* the test participant asks about the status of Building 311.

## Section 3

# PERFORMANCE TEST CONDUCT

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### Performance Test Setup and Initial Activities

Preparation activities vary in the level of sophistication and required detail between the individual and ERO team-style performance tests. This section outlines the activities that are necessary for successful conduct of both styles.

#### Individual Performance Test Preparation Activities

Individual-style performance tests are normally conducted in the workplace where the participant conducts his/her emergency management duties. The participant is expected to use all response/decision-making tools and references that are located in this workplace. They may be allowed to use other staff members with assigned duties in the workspace that would normally be available to provide support. The inspector and site trusted agent should coordinate normally available participants during the preparatory phases for the inspection. In addition, the site should determine whether the performance test may occur during the individual's normal watch period and resolve questions related to the need for, and use of, backup watchstanders.

Prior to the conduct of the performance tests, the HS-63 team member responsible for the tests, in conjunction with the trusted agent, should ensure that all materials necessary to conduct the performance test are available (maps, charts, forms, message injects, etc.).

In addition, prior to the conduct of the test, the HS-63 team member and the site trusted agent should rehearse the test in detail to ensure that all expectations and ground rules are understood and adhered to during the conduct of the performance test.

#### Team Performance Test Preparation Activities

There are two types of ERO team performance tests. The facilitated or moderated test is conducted in the same manner as the individual ERO position test, with the facilitator providing all the cues and scenario inputs. The preparation for this type of test is the same as the individual-style test.

The second type of ERO team performance test includes a simulation cell, which is a remote location where the event scenario and remote response activities are simulated and reported. The facilitator

(trusted agent or HS-63 team member) provides the ground rules, and the scenario scene is set up. After the scenario is initiated, the facilitator coordinates the input of information with the simulation cell. The preparation activities are more extensive with this style of performance test. The individuals assigned as the simulation cell members must be identified, trained, and rehearsed. The facility to be used by the simulation cell has to be selected, and sufficient communications (radio, telephone, and fax) have to be installed so that the participants receive and send information in the same manner that they would in their respective positions during an actual emergency.

Prior to the performance test, the simulation cell and the performance test participant location (if other than the normal response venue) have to be set up. Each position in both locations should be identified with a nameplate or tent. When using a setup other than the designated response venue, the room should be configured to ensure that ERO groups are positioned in the same proximity as they would be in their actual facility (e.g., the consequence assessment group should sit together).

Telephone directories will have to be verified to ensure that both the participants and the simulators can communicate accurately. Communication lines should be tested prior to the performance test to ensure operability.

After the simulation and performance test rooms have been configured, a rehearsal should be conducted. All simulation cell personnel will be present. During the rehearsal, the simulators will verbally discuss their actions with the facilitator instead of using the communications network.

## **Conducting the Performance Test**

### **Administering the Individual Position Performance Test**

The test is usually conducted in the ERO member's emergency response workspace. This may be in a continuously-manned duty office (e.g., Plant Shift Superintendent office), the emergency operations facility, or the incident command vehicle. After the individual participant has arrived and introductions have been made, the HS-63 evaluator will brief the participant on the purpose and scope of the performance test and provide him/her with a written set of "ground rules" (see Attachment 5). The evaluator must emphasize that the performance test is performance-based, meaning that responders are expected to carry out actions to the extent permitted by previously agreed to simulations. Participants should be cautioned against merely discussing what they would do – rather, participants should perform the actions required by their procedures.

After answering any questions, the facilitator will present the scenario initial conditions. This may include the time of day and day of week (normal or off-hour operations), special operations being conducted on site, security alert levels, and other general site and facility information. Other conditions, such as weather that the participant would normally check, should also be provided.

After the facilitator, the evaluator(s), and the participant are ready, the first message (cue) is given to the participant. This start time is recorded. The facilitator will continue to provide messages to the participant either as earned information or scripted information. The evaluator will record the participant's response and the time of occurrence. "Time-outs" may have to be provided to permit transaction of site business if the test occurs during the interviewee's watch period. However, every effort should be made to minimize this (for example, by having the site arrange for backup support for the individual during the test). Plant and personnel safety is the highest priority. Performance tests will be stopped if plant events warrant action by any personnel involved in the test.

If the participant does not earn critical information that is required to keep the test on track or schedule, the facilitator may provide the information as a contingency message when sufficient time has elapsed. The HS-63 team member will note that this information was not earned.

After the performance test has provided the participant the opportunity to meet the performance test objectives, the test will be concluded. A general critique (“hot wash”) can be conducted as described in Section 4, but a rating or pass/fail evaluation will not be provided.

### **Administering the Performance Test for ERO Teams**

This style of test is conducted either in the ERO team emergency workspace or in a conference-style room configured to represent the organizational structure, with teams placed as functional groups. More than one room may be used if the ERO teams would normally not rely on face-to-face communications during an event.

The HS-63 evaluator should read the participant instructions to establish the expectations for the performance test (see Attachment 5). The facilitator will instruct the participants in the communications protocols, e.g., using telephone directories to the simulation cell or directing communications from each specialty team via one person to the appropriate recipient. For example, consequence assessment team members will discuss their recommendations on protective actions. The consequence assessment team leader will provide the recommendation to the emergency director.

#### ***A. Performance Test without a Simulation Cell***

The facilitator conducts this type of performance test in the same manner as the individual-style test. The facilitator directs messages to the person/team that will receive the information in accordance with the site’s emergency plan and procedures. The facilitator controls communications between the various team(s) to simulate the communication networks at the site.

#### ***B. Performance Test with a Simulation Cell***

The facilitator’s role changes in this style of performance test. In general, the facilitator does not communicate with the participants once the scenario stage is set. The facilitator’s primary responsibility is to coordinate the input of data via the simulation cell. Additionally, the facilitator may need to periodically remind the participants to perform their actions (rather than discuss what they would do) so response activities can be correctly recorded.

Contingency injects are events that should be verbally provided to a player by the simulation cell if they do not take place. Use of contingency injects during the performance test should be documented. Refrain from using contingency injects that disallow a realistic impact or prevent an appropriate response to scenarios involving hazardous material releases. To the extent possible, allow free play in order to evaluate and validate actual response to the impact of hazardous material releases on positions in facilities or associated with activities that require occupancy for safe operation, security, or monitoring.

## Section 4

# PERFORMANCE TEST EVALUATION

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### General Information

This section provides information on how the results of the data collected during the performance test may be used to support evaluations of the site's emergency response program.

### Evaluation Criteria

HS-63 conducts its emergency management program evaluations using the inspection plan (developed for each inspection in accordance with the HS-63 Appraisal Process Guide), the associated lines of inquiry, and performance criteria from DOE Guide 151.1-3, Appendix D, *Evaluation Criteria*. These performance criteria are used when evaluating the performance test results. As part of the inspection process, the performance test results are integrated with other data collection efforts to determine the effect of any deficiencies on the program and to determine a rating for the program element.

### Evaluation Guidance

The purpose of the test should not be to test an individual's performance but rather to obtain data on the capability (training, supporting tools, procedures) of a given ERO position. Therefore, any individual performance problems should be evaluated to determine possible causes of the problem. For instance, the root cause might be a lack of training or insufficient procedural guidance. In addition, the inspector should be sensitive to the possibility that the problem may be caused by artificialities of the performance test.

Inspectors are encouraged to use performance test evaluation checklists to ensure consistent observation and evaluation of program-specific expectations and characteristics.

### Validating the Results

Validation is the process HS-63 inspectors use to verify the accuracy of the information they have obtained during data collection activities. HS-63's validation procedures, which are discussed in detail in the HS-63 Appraisal Process Guide, include on-the-spot validations, daily validations, and summary validations.

The validation strategy provides site personnel with multiple opportunities to verify the factual accuracy of data and information collected by team members at various stages of the actual appraisal process. In



using any of the validation methods, team members must be very candid about issues in order to provide those being evaluated with a chance to respond. These interactions often are of significant value to the site because they provide a means for HS-63 to share the perspective gained from other sites in the complex.

Validation of performance testing begins with the development of the objectives where expectations for the test results are developed. The inspector should ensure that the expectations are reasonable. Following the performance test, the inspector should discuss observations with the site trusted agent to validate the observations. In addition, the inspector may choose to perform a “hot wash” immediately following the performance test to solicit player comments and input, and to discuss observations with person(s) serving in the position being evaluated in order to understand why certain actions were taken and to ensure that no critical actions were performed without being observed by the inspector.

The inspector should provide results of performance tests to the team leader upon completion of a day’s activities in case the team leader wishes to discuss/validate the results during daily meetings for cross-cutting issues. Note: Typically more than one person is tested in order to provide a better picture of capabilities of the ERO position (rather than individual performance), and care should be taken to not present an incomplete representation of HS-63’s observations. After all the performance tests are completed, the team leader may discuss the summary results with site management during a daily meeting.

## ATTACHMENT 1 MANAGEMENT CHECKLIST FOR LSPTs

This checklist is provided to assist the HS-63 inspection team leader in managing the performance test scheduling and development process.

|   |
|---|
| <b>Initial Preparation (6-8 weeks in advance of assessment)</b>   |
| Team leader assigned  |
| Team leader submits letter to the site informing them of the inspection and requesting a trusted agent (see Attachment 2) |
| <b>Pre-scoping Visit (2-3 weeks in advance of assessment)</b>   |
| Site acknowledges the letter and assigns a trusted agent  |
| Responsible team member conducts telephone interview with trusted agent   |
| Hazards assessment/survey, emergency plan, and previous site exercise scenarios received and reviewed                     |
| Plans and procedures reviewed by team members   |
| Responsible team members provide input to the performance test purpose, scope, and objectives                             |
| Tentative scenarios selected  |
| <b>Scoping Visit</b>  |
| Tentative performance test purpose, scope, objectives, and scenarios reviewed and concurred with by the trusted agent     |
| Draft scenarios reviewed by team leader and submitted to the trusted agent for concurrence                                |
| Trusted agent concurs with performance test package(s)  |
| <b>Planning Visit</b>   |
| Walkthrough of scenario event scenes with HS-63 inspection team   |
| Final approval of participants, schedule, and performance test package  |
| Performance test controllers identified and assigned to venues  |
| <b>Day Before Performance Test</b>  |
| Rehearse with trusted agent   |
| Set up room for decision-making team; inspect work area for individual tests  |
| Assemble and brief simulation cell for decision-making team performance test  |
| <b>Conduct Performance Test</b>   |
| Facilitator and HS-63 inspector meet to discuss performance and validate initial findings                                 |

## ATTACHMENT 2 EXPECTATIONS FOR TRUSTED AGENT

In order to accurately evaluate a site's emergency management program, HS-63 develops performance tests in coordination with a site trusted agent (TA).

The overall function of the site TA is to serve as an integral part of the process for developing and conducting limited-scope performance tests, which are a key part of HS-63 emergency management appraisals.

### **Trusted Agent Knowledge, Experience, Abilities, and Authority**

- Is experienced in developing and administering drills and exercises, including filling the role of a drill/exercise controller.
- Has a broad operational background at the site to facilitate realistic role-playing.
- Is familiar with the site's emergency management concept of operations.
- Has expertise in several areas, including: emergency response organization, incident command system, emergency planning hazards assessments, fire and rescue, security, and plume dispersion modeling (particularly if the site utilizes a site-specific dispersion model that requires special skills and/or access not available to the HS-63 evaluator).
- Has the requisite authority to "approve" the use of scenarios developed for the performance tests to ensure scenario confidentiality.

### **Trusted Agent Roles and Responsibilities**

1. Plant and personnel safety remain the highest priority during the performance tests. TAs will ensure that the performance test is stopped if plant events warrant action by any personnel involved in the performance test.
2. The TA identifies additional subject matter experts that may be required to assist in developing performance test scenarios and conducting the performance tests. Usually, multiple TAs are required to administer the test (site/facility expert and security expert). One TA will be identified as the lead, and will serve as the primary contact with Independent Oversight. All discussions and communications with Independent Oversight regarding scenario development and review, and performance test administration, will be routed through the lead TA.
3. The TA is expected to keep all conversations, documents, planning and development, and other inspection information confidential between the HS-63 inspection team members and the TA and will limit disclosure only to persons with TA status. The release of the information prior to the inspection may result in an inaccurate reflection of the site's program.
4. The TA(s) assists HS-63 evaluators in identifying site/facility-specific test scenarios that fulfill HS-63 objectives and that are derived from the applicable EPHAs.

5. The TA(s) assists in identifying the key decision-makers to be evaluated during the performance tests, with the understanding that all “other” ERO members’ response actions will be simulated by the TA or site exercise controllers.
6. With guidance and assistance from Independent Oversight, the TA(s) develops the scenarios and supporting information for the performance tests, ensuring that they incorporate site-specific terminology, hazards, and organizational responsibilities. The performance test package content and format should meet any applicable site requirements if the site intends to credit the examinees for participation in a drill/exercise within the site drill/exercise program. The TA(s) will develop the performance test purpose, scope, and objectives, and will obtain concurrence from Independent Oversight. The test package should include hazards, event initiators, event scenes, weather conditions, scenario narratives, the Master Scenario Events List (MSEL), test injects, and such props as pictures, drawings, deposition data, and shipment manifests that may be requested by a test player during a scenario. The TA(s) will ensure that the inject terminology and references are accurate.
7. The TA(s) should generally plan on two scenarios per team of participants: one scenario should be initiated by an operational event (e.g., component/system failure) and one scenario should be initiated by a security-related event. For non-facility venues (e.g., consequence assessment, EOC), one scenario will usually be facility-based and the other may involve a hazardous material transportation activity. For testing multiple teams, the same sets of scenarios may be used unless there is a concern about the potential for disclosure among participants. The total duration of testing is approximately two hours per team.
8. The TA(s) should communicate frequently with Independent Oversight regarding the progress of scenario development, and should provide test materials to Independent Oversight as requested for review and comment. After the performance test package has been developed, the package should again be provided to Independent Oversight for review and comment.
9. The TA(s) may be required to assist in collecting site documents, plans, procedures, organizational charts, past exercise scenarios, past exercise evaluation reports, and other related site emergency response information.
10. The TA(s) should determine whether the performance test may occur during the participants’ normal watch periods, and whether a backup (shadow) watchstanders are required. The TA(s) generally schedules performance tests at the convenience of participants.
11. The TA(s) determines the location of the performance test, which is normally in the workplace where the participant conducts his/her emergency response duty. The TA(s) ensures that all response procedures, references, and other materials (e.g., maps, charts, checklists, forms, message injects) that are normally available are located in this workplace.
12. The TA(s) usually conducts the performance test by acting as an exercise controller and providing the participants with a briefing of initial conditions, event cues, and information requested by the participants during the test (i.e., through role-playing plant personnel not participating in the test).
13. The TA(s) participates in any “hot wash” briefings required by the site’s drill/exercise program. The TA(s) validates the observations and findings, based on the site’s plans, implementing procedures, and organizational structure.

### Estimated Time Requirements for Trusted Agents

- Initial phone contact with the lead TA typically occurs prior to the inspection scoping visit. This contact allows for introductions and initial guidance from Independent Oversight regarding the performance testing process and scenario development. [1 hour]
- During the scoping visit (or during subsequent telephone conference calls), facilities of interest are identified and initial plans are developed. [4 hours]
- The TA(s) is expected to have the scenario drafts ready for Independent Oversight review approximately two weeks before the inspection period. During the development process, Independent Oversight will provide periodic feedback, direction, and guidance as needed via e-mail and telephone. [40 hours]
- Approximately two weeks before the inspection period, Independent Oversight typically travels to the site to review the draft scenarios with the TA(s). During this site visit, Independent Oversight and the TA(s) will discuss the details of the scenarios as well as the procedures and other resources expected to be used by the players. Postulated event scenes and working spaces to be used for conducting the performance tests should be visited. Independent Oversight and the TA(s) will identify remaining activities to ensure that scenario packages are ready and that they will meet Independent Oversight objectives. [16 hours]
- Following the Independent Oversight onsite review of the scenario packages, the TA(s) revises scenario materials as necessary to have the scenario packages ready by the end of the week just prior to the inspection period. These will be provided to Independent Oversight via e-mail at that time. [8 hours]
- The TA(s) conducts the performance tests during the first week of the inspection period in accordance with the agreed-upon schedule. [24 hours]
- The TA(s) participates in briefings of results and informal validation reviews of Independent Oversight observations and preliminary conclusions during the second week of the inspection period. [2 hours]
- The TA(s) reviews the Independent Oversight initial draft report, which is typically provided to the site within two weeks of the end of the onsite data collection period. The TA(s) may participate in informal and formal validation activities. [3 hours]

### Summary of Estimated Trusted Agent Time Requirements

| Activity                           | Estimated Hours | Total Estimated Hours |
|------------------------------------|-----------------|-----------------------|
| Initial Performance Test Planning  | 5               |                       |
| Scenario Package Preparation       | 40              |                       |
| Site Visit for LSPT Final Planning | 24              |                       |
| Conduct of LSPT                    | 24              |                       |
| Validation and Closeout            | 5               | 98                    |

# ATTACHMENT 3 TYPICAL PERFORMANCE TEST OBJECTIVES

## Individual ERO Position Performance Test Objectives

- ❑ Categorize and classify the emergency event
- ❑ Determine initial protective actions
- ❑ Make initial notifications within 15 minutes
- ❑ Determine protective action recommendations
- ❑ Activate the emergency response organization
- ❑ Sound warning sirens
- ❑ Establish a security cordon around the event scene
- ❑ Request mutual aid
- ❑ Integrate mutual aid into the emergency response
- ❑ Activate emergency response facilities (technical support center, emergency operations center, joint information center, etc.)
- ❑ Use checklists, procedures, or other performance aids

## ERO Team Performance Test Objectives

### Event Scene

- ❑ Perform initial response at event scene appropriate for type and extent of hazards and establish proper isolation zone
- ❑ Analyze event information/data and initiate mitigation/corrective actions
- ❑ Establish Incident Command at /near event scene and establish direction and control of emergency response
- ❑ Augment resources in response to actual/potential escalating emergency conditions
- ❑ Maintain security of the affected area

### Categorization/Classification of Operational Emergencies

- ❑ Recognize, categorize, and properly classify the emergency event(s)
- ❑ Monitor and assess changing emergency events and conditions
- ❑ Review the event classification and revise as appropriate

### Notifications and Communications

- ❑ Complete required initial onsite and offsite notifications
- ❑ Perform follow-up onsite and offsite notifications
- ❑ Establish communication lines between emergency response locations
- ❑ Communicate timely and effective event information among cognizant response organizations/personnel
- ❑ Communicate appropriate protective actions to onsite personnel
- ❑ Communicate appropriate protective action recommendations to offsite organizations

Protective Actions

- ❑ Determine and implement onsite protective actions (sheltering and/or evacuation)
- ❑ Direct personnel accountability at the affected facilities
- ❑ Develop protective action decisions and offsite recommendations based on predetermined criteria
- ❑ Direct evacuation of personnel from facilities/locations

Emergency Response Staff Functions

- ❑ Analyze and verify information/data to formulate mitigation and corrective actions for initial Categorization/Classification and protective actions
- ❑ Perform safety assessments of event conditions and trending of event data
- ❑ Plan and coordinate facility re-entry activities with on-scene command
- ❑ Coordinate decisions/actions for emergency worker exposure controls
- ❑ Coordinate and communicate information/data among event scene, facility, site, and field team response elements
- ❑ Coordinate the monitoring, control, and decontamination of personnel at relocation areas
- ❑ Plan and direct/coordinate activities to repair damaged equipment in support of emergency mitigation

Consequence Assessment

- ❑ Complete an initial consequence assessment
- ❑ Provide status briefings to EOC management
- ❑ Review and update the event source term
- ❑ Acquire meteorological data to support onsite/offsite dose projections
- ❑ Perform onsite/offsite dose projections and compare projected estimates with field data
- ❑ Continually assess the consequences of emergency events and monitor safety, health, and environmental conditions

Emergency Public Information

- ❑ Develop and release a timely and accurate notification to site workers regarding the emergency and protective actions
- ❑ Develop and release a timely and accurate initial news release to the public regarding the emergency
- ❑ Develop and release subsequent timely and accurate follow-up notifications to site workers regarding emergency conditions and protective actions
- ❑ Develop ongoing accurate and timely news releases to the public regarding onsite emergency classifications/conditions and onsite protective action

## ATTACHMENT 4 EXAMPLE PERFORMANCE TEST PACKAGE

This attachment contains an example test package for a simple performance test.

**Objective:** Given notification of an event, the Plant Shift Superintendent (PSS) classifies the event in accordance with Emergency Plan Implementing Procedure (EPIP) 1003, *Categorization and Classification*.

**Narrative:**