

## Welcome

### Goal

The goal of this tutorial is to train federal and contractor employees assigned as Controllers, Evaluators, and/or Controller/Evaluator in the standard basic techniques of exercise control and evaluation as outlined in the DOE Guide 151.1-3, *Programmatic Elements Emergency Management Guide*, Chapter 3, Exercises.

### Tutorial Objective

Given the contents of this tutorial, Participants will learn the basic techniques; terminology; and roles and responsibilities of exercise control and evaluation in support of site/laboratory exercise programs. Unless otherwise noted, all tutorial content is applicable to drills as well as exercises. Also, the content is meant to be used with an operations-based exercise rather than a discussion-based exercise.



Controllers and Evaluator at Operations-based Exercise

### Learning Objectives

- Identify the roles and responsibilities of the Control Organization and the Evaluation Organization
- Describe the tools available to a Controller and an Evaluator
- Identify Controller and Evaluator responsibilities prior to, during, and after an exercise
- State the process for providing input into an After Action Report

**Control Requirements**

There are two general requirements for exercise control:

- “Each exercise must be conducted, controlled, evaluated, and critiqued effectively and reliably.” (DOE Order 151.1C, *Comprehensive Emergency Management System, Attachment 2, Contractor Requirements Document [CRD], Paragraph 6, Exercises*)
- “The flow of the scenario timeline and events must be effectively controlled and the response of the Participants must be realistic and professional.” (DOE G 151.1-3, Chapter 3, *Exercises, Section 3.2, General Approach*)



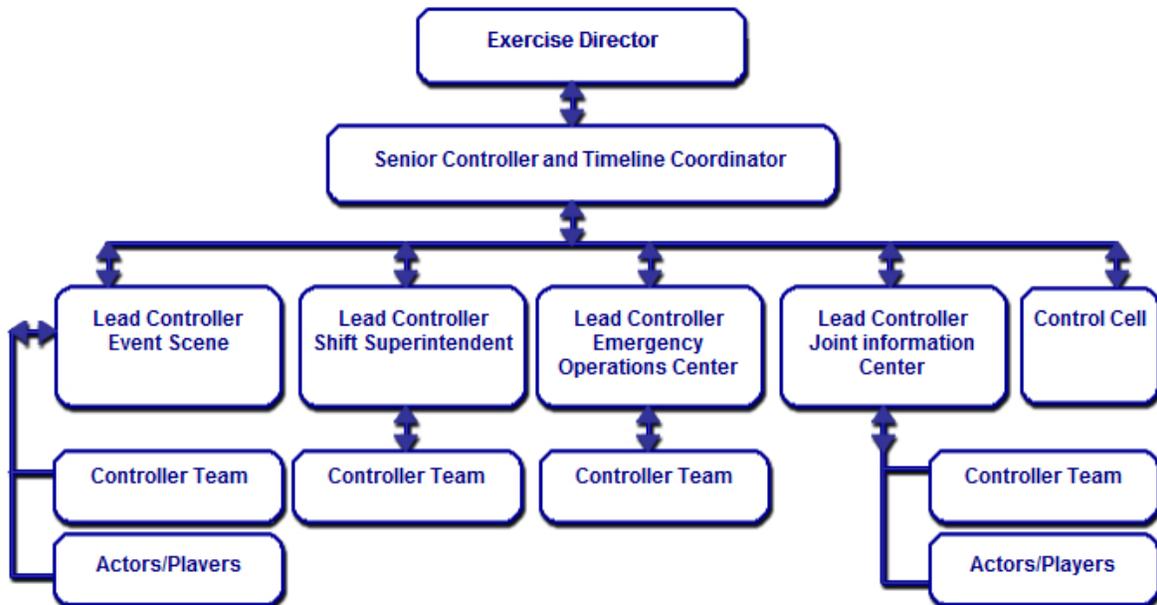
Controller with Fire Personnel

More specific guidance is contained in DOE G 151.1-3, Chapter 3, *Exercises* and Chapter 4, *Readiness Assurance*.

**Control Organization**

The Control Organization is responsible for controlling the exercise and is usually depicted on an organizational chart showing the categories of Controllers and lines of communication. The size of the Control Organization varies in number depending on the exercise scope.

**Instruction:** Each position in the Control Organization is described below by function.



Position	Responsibilities
<p><b>Exercise Director</b></p> 	<ul style="list-style-type: none"> <li>• Has overall responsibility for exercise planning, development, conduct, and evaluation</li> <li>• Provides the opportunity to meet exercise objectives</li> <li>• Starts, suspends, and terminates the exercise</li> </ul>
<p><b>Senior Controller</b></p> 	<ul style="list-style-type: none"> <li>• Oversees all exercise functions, including setup and takedown of exercise, such as prop placement, signs, removal of debris, and positioning of Controllers and Evaluators</li> <li>• Is responsible for communications with Controllers and Evaluators</li> <li>• Issues exercise materials via Lead Controller or assigned Controller(s) to Responders/Players as required</li> <li>• Monitors exercise progress and makes decisions regarding any deviations or changes</li> <li>• Coordinates any required modifications</li> <li>• Debriefs Controllers and Evaluators in the Post-exercise Briefing</li> </ul>
<p><b>Timeline Coordinator</b></p> 	<ul style="list-style-type: none"> <li>• For complex exercises, is responsible for ensuring the exercise timeline remains on schedule—a key factor for proper attainment of exercise objectives. Should exercise play cause deviation from or a delay in the timeline, it becomes necessary to use previously prepared contingency materials</li> <li>• Is typically co-located with the Senior Controller, and is responsible for specific tasks or actions from the Control Cell</li> <li>• Receives timeline status reports from Lead Controllers and provides this information to the Senior Controller and Exercise Director</li> </ul>
<p><b>Lead Controller</b></p> 	<ul style="list-style-type: none"> <li>• Coordinates the activities of several Controllers for larger or more complicated exercises that involve a number of response locations and emergency functions</li> <li>• Is organized by location, function, or a combination of both depending on the needs of the exercise</li> <li>• Introduces, maintains, and coordinates exercise events in accordance with the <a href="#">Master Scenario Events List (MSEL)</a> (see Glossary)</li> <li>• Ensures delivery of injects promptly as directed by the Senior Controller</li> <li>• Observes and reports exercise artificialities that interfere with realism</li> <li>• Notifies the Senior Controller of events or need for changes</li> </ul>

Position	Responsibilities
<p><b>Control Cell</b></p> 	<ul style="list-style-type: none"> <li>• Is a simulation center located away from the Responders/Players</li> <li>• Staffed by experienced Controllers (and/or Actors) who simulate or role-play Non-participating Organizations who would normally be involved in responding to an emergency.</li> </ul>
<p><b>Controller Team</b></p> 	<ul style="list-style-type: none"> <li>• Delivers input (e.g., injects, instrument readings, observations) to Responders/Players as described in the MSEL and/or as directed by the Senior Controller and/or Lead Controller</li> <li>• Notifies the Lead Controller of events or need for changes</li> </ul>
<p><b>Actors/Players</b></p> 	<ul style="list-style-type: none"> <li>• Are Controllers who simulate members of Non-participating Organizations and role-play key individuals, such as injured personnel</li> </ul>

**Exercise Control Section Quiz**

**Instruction:** Select the one best answer. Answers are given following this quiz.

- 1 of 5: Which of the following is a general requirement for exercise control according to DOE Order 151.1C and DOE Guide 151.1-3?
- A. Each exercise must have minimum number of Controllers
  - B. Each exercise must be conducted, controlled, evaluated, and critiqued effectively and reliably
  - C. The flow of the scenario timeline and events must be effectively controlled and the response of the Participants must be realistic and professional
  - D. Both B and C
- 2 of 5: The Control Organization is responsible for overseeing all exercise functions including setup and takedown of the exercise.
- A. True
  - B. False
- 3 of 5: This individual delivers input to Responders/Players as described in the MSEL and/or as directed by the Senior Controller and/or Lead Controller.
- A. Control Team Member
  - B. Lead Evaluator
  - C. Lead Exercise Planner
  - D. Evaluator
- 4 of 5: This individual ensures delivery of injects promptly as directed by the Senior Controller.
- A. Timeline Coordinator
  - B. Exercise Director
  - C. Lead Controller
  - D. Lead Exercise Planner
- 5 of 5: This individual receives status reports from Lead Controllers and provides this information to the Senior Controller and Exercise Director.
- A. Control Cell
  - B. Timeline Coordinator
  - C. Lead Evaluator
  - D. Controller Team Member

**Exercise Control Section Quiz Answers (Note: Correct Answers are in bold)**

1 of 5: Which of the following is a general requirement for exercise control according to DOE Order 151.1C and DOE Guide 151.1-3?

- A. Each exercise must have minimum number of Controllers
- B. Each exercise must be conducted, controlled, evaluated, and critiqued effectively and reliably
- C. The flow of the scenario timeline and events must be effectively controlled and the response of the Participants must be realistic and professional

**D. Both B and C**

2 of 5: The Control Organization is responsible for overseeing all exercise functions including setup and takedown of the exercise.

**A. True**

B. False

3 of 5: This individual delivers input to Responders/Players as described in the MSEL and/or as directed by the Senior Controller and/or Lead Controller.

**A. Control Team Member**

B. Lead Evaluator

C. Lead Exercise Planner

D. Evaluator

4 of 5: This individual ensures delivery of injects promptly as directed by the Senior Control.

A. Timeline Coordinator

B. Exercise Director

**C. Lead Controller**

D. Lead Exercise Planner

5 of 5: This individual receives status reports from Lead Controllers and provides this information to the Senior Controller and Exercise Director.

A. Control Cell

**B. Timeline Coordinator**

C. Lead Evaluator

D. Controller Team Member

**Exercise Evaluation Requirements**

There are general requirements for exercise evaluation according to DOE Order 151.1C:

- "Each exercise must have specific objectives and must be fully documented (e.g., by scenario packages that include objectives, scope, timelines, injects, controller instructions, and evaluation criteria). Exercises must be evaluated. A critique process, which includes gathering and documenting observations of the Participants, must be established. Corrective action items identified as a result of the critique process must be incorporated into the emergency management program. (DOE O 151.1C, Chapter IV, *Operational Emergency Hazardous Material Program*, Paragraph 4.b, *Exercises*)
- "Each exercise must be conducted, controlled, evaluated, and critiqued effectively and reliably." (DOE O 151.1C, Attachment 2, *CRD*, Paragraph 6, *Exercises*)



Evaluator Observing  
Consequence  
Assessment Area

More specific guidance is contained in DOE G 151.1-3, Chapters 3 and 4.

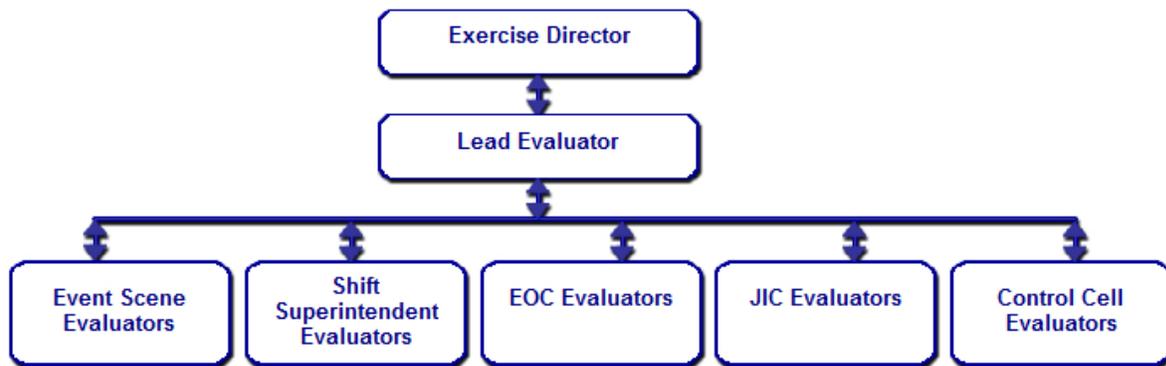
**Evaluation Organization**

The value of exercise evaluation is the ability to provide constructive feedback (positive or negative) to improve and enhance the effectiveness of an organization's response to emergencies. Accurate and detailed documentation is critical in facilitating a full record of all the events in an exercise and an understanding of Responders/Players and Controllers actions.

The Evaluation Organization varies in number depending on the exercise scope and may include the following evaluation positions.

**Note:** Evaluators may be grouped into teams with a Team Leader.

**Instructions:** Functions of each position in the Evaluation Organization is described briefly in the table below.



Position	Responsibilities
<p><b>Exercise Director</b></p> 	<ul style="list-style-type: none"> <li>• Has overall responsibility for exercise planning, development, conduct, and evaluation</li> <li>• Provides the opportunity to meet exercise objectives</li> <li>• Starts, suspends and terminates the exercise</li> </ul>
<p><b>Lead Evaluator</b></p> 	<ul style="list-style-type: none"> <li>• Is a senior-level person who understands command and decision-making processes and interagency coordination, as well as specific response functions</li> <li>• Coordinates all evaluation functions including preparation of the <a href="#">After Action Report (AAR)</a> (see Glossary)</li> <li>• Observes, documents, and evaluates Controller and Responder/Player performances and adequacy of facilities and equipment</li> <li>• Ensures collection of all evaluation data, <a href="#">Exercise Evaluation Guides (EEGs)</a> (see Glossary), and materials after the exercise</li> </ul>
<p><b>Evaluators</b></p> 	<ul style="list-style-type: none"> <li>• Observe, document, and evaluate Controller and Responder/Player performance and adequacy of facilities and equipment in assigned facility/area(s)</li> <li>• Record key events and times as they occur</li> <li>• Collect data information as it is distributed during the exercise</li> </ul>

**Exercise Evaluation Section Quiz**

**Instruction:** Select the one best answer. Answers are given following this quiz.

- 1 of 4: Which of the following is a general requirement for exercise evaluation according to DOE Order 151.1C and DOE Guide 151.1-3?
- A. Each exercise must have specific objectives and must be fully documented (e.g., by scenario packages that include objectives, scope, timelines, injects, controller instructions, and evaluation criteria)
  - B. Exercises must be evaluated. A critique process, which includes gathering and documenting observations of the Participants, must be established
  - C. Each exercise must be conducted, controlled, evaluated, and critiqued effectively and reliably
  - D. All of the above
- 2 of 4: The Evaluation Organization's role is to \_\_\_\_\_.
- A. Document Responder/Player performance
  - B. Evaluate adequacy of facilities and equipment
  - C. Evaluate Responder/Player performance against established emergency plan/procedures and exercise evaluation criteria
  - D. All of the above
- 3 of 4: A Lead Evaluator is responsible for the coordination of all evaluation functions including preparation of the After Action Report that identifies findings and recommends corrective actions.
- A. True
  - B. False
- 4 of 4: Evaluators do which of the following?
- A. Observe, document, and evaluate Controller and Responder/Player performance and adequacy of facilities and equipment in assigned facility/area(s)
  - B. Record key events and times as they occur
  - C. Collect data information as it is distributed during the exercise
  - D. All of the above

**Exercise Evaluation Section Quiz Answers (Note: Correct Answers are in bold)**

- 1 of 4: Which of the following is a general requirement for exercise evaluation according to DOE Order 151.1C and DOE Guide 151.1-3?
- A. Each exercise must have specific objectives and must be fully documented (e.g., by scenario packages that include objectives, scope, timelines, injects, controller instructions, and evaluation criteria)
  - B. Exercises must be evaluated. A critique process, which includes gathering and documenting observations of the Participants, must be established
  - C. Each exercise must be conducted, controlled, evaluated, and critiques effectively and reliably
  - D. All of the above**
- 2 of 4: The Evaluation Organization's role is to \_\_\_\_\_.
- A. Document Responder/Player performance
  - B. Evaluate adequacy of facilities and equipment
  - C. Evaluate Responder/Player performance against established emergency plan/procedures and exercise evaluation criteria
  - D. All of the above**
- 3 of 4: A Lead Evaluator is responsible for the coordination of all evaluation functions including preparation of the After Action Report that identifies findings and recommends corrective actions.
- A. True**
  - B. False
- 4 of 4: Evaluators do which of the following?
- A. Observe, document, and evaluate Controller and Responder/Player performance and adequacy of facilities and equipment in assigned facility/area(s)
  - B. Record key events and times as they occur
  - C. Collect data information as it is distributed during the exercise
  - D. All of the above**

**Controller and Evaluator Selection**

Assignment of staff to Controller positions is the responsibility of the Senior Controller in coordination with the Exercise Director or Lead Exercise Planner. A Controller is chosen for his/her knowledge and understanding of the specific functional facility/area(s) he/she is assigned to control.

Assignment of staff to Evaluator positions is the responsibility of the Lead Evaluator in coordination with the Exercise Director or Lead Exercise Planner. An Evaluator is selected based on his/her knowledge of the functions he/she is to evaluate and his/her experience with them.



Controller and Evaluator

Potential Controllers and Evaluators are identified from multiple sources, including the following:

- Members of the Exercise Design Team, who are fully versed in the scenario, Responders/Players, and expected action
- Experienced members of Participating Organizations and the Emergency Response Organization who are not involved in the exercise play
- Professionals in similar agencies in adjacent or nearby jurisdictions
- DOE/NNSA and contractor employees from other DOE/NNSA facilities and/or sites

**Exercise Confidentiality**

Exercise information is closely guarded to ensure its confidentiality. If Responders/Players are aware of the scenario beforehand, it skews any assessment of the emergency response capabilities. A Controller and an Evaluator maintains confidentiality by the following actions:

- Considers carefully what he/she says and to whom because it may be overheard by Responders/Players
- Protects sensitive materials (scenario, timeline, notes, inject message, other) from inadvertent disclosure before and during an exercise
- Takes care in positioning himself/herself while observing an exercise activity to ensure he/she does not divulge specific information by his/her actions
- Ensures control radios cannot be heard by Responders/Players



Controllers Positioning Themselves While Observing

**Controller Roles**

A Controller plays a crucial role throughout the exercise process.

The roles of each Controller are as follows:

- Maintains safety and security precautions and limitations
- Provides overall direction and control of an exercise
- Ensures the continuity of the scenario



Controller Maintaining Safety Precautions

**Evaluator Roles**

Evaluators are subject matter experts who observe, monitor, evaluate and document Responders/Players performances.

The roles of each Evaluator are threefold:

- Observes and documents the performance of Controllers and Responders/Players as they seek to accomplish their objectives
- Evaluates the performance against the exercise objectives, augmented by evaluation criteria contained in the EEGs
- Provides input to develop the After Action Report



Evaluator Documenting Performance of Responders/Players

Controller and Evaluator functions are separate. Each role has specific responsibilities that require total concentration to be performed effectively. When assigned both roles, an individual is called a Controller/Evaluator and must have a thorough understanding of both Controller and Evaluator requirements and responsibilities.

**Emergency Management Documentation**

<b>Controller and Evaluator Task:</b>	Reviews appropriate emergency plans, procedures, and checklists/tools used by Responders/Players to demonstrate their objectives.
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Each Controller and Evaluator reviews appropriate emergency documentation for his/her assigned facility/area(s).

The Controller must understand the Emergency Plans and Implementation Procedures being used by the Responders/Players he/she is controlling in order to understand the dynamics of an action or activity as it unfolds in the exercise play.

Examples of emergency plans, procedures, and checklists/tools may include the following:



Site Emergency Plan



Mass Casualty Plan



Emergency Operations Center Procedures



Joint Information Center Procedures



Accountability Checklist



Notification Checklist

The Evaluator must understand the Emergency Plans and Implementation Procedures being used by the Responders/Players he/she is evaluating. The evaluation includes an assessment of Responders/Players' implementation of the plans and procedures, as well as an assessment of the adequacy of these plans and procedures.

Emergency Plans and Procedures are frequently updated. Failure to review current plans and procedures results in Evaluator errors and skews evaluation results.

The Lead Evaluator ensures that all Evaluators receive plans and procedures far enough in advance to allow for a thorough review and that those Evaluators understand the importance of the plan and procedure review.

**Exercise Documentation**

<b>Controller and Evaluator Task:</b>	Reviews appropriate Controller and Evaluator materials.
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Controllers and Evaluators receive their exercise materials at the Controller and Evaluator Exercise-specific Training.

The Control and Evaluator (C/E) Handbook supplements the Exercise Plan (EXPLAN) by presenting more detailed information about the exercise scenario and describes exercise Controller's and Evaluator's roles and responsibilities.

**Note:** Larger, more complex exercises use the Control Staff Instructions (COSIN) and an Evaluation Plan (EVALPLAN) in place of, or to supplement, the C/E Handbook.

A Controller and an Evaluator reorganizes his/her materials so information critical to his/her specific assignment is readily accessible when brought to the exercise.

Let's look at materials that make up a typical C/E Handbook.

The C/E Handbook could be in the form of handouts, packages, or other assembled materials.



**Controllers and Evaluators Reviewing Controller and Evaluator Materials**

**Sample Controller and Evaluator Handbook**

**Instructions**

Instructions list general information that each Controller or Evaluator needs for pre-exercise setup, exercise conduct and exercise evaluation.

Instructions may include the following:

- Schedule of exercise activities
- Requirements for each exercise assignment
- List of special equipment required for the position
- Location and layout of the facility or function
- Expected time of Responders/Players arrival
- Logistical information
- Potential problem areas

**Example: Sample Controller Instructions**

1. Review the exercise objectives and the Exercise C/E Handbook for your area of responsibility.
2. Highlight your assigned messages on your Master Scenario Events List (MSEL).
3. Position yourself in the appropriate emergency response facility at least 30 minutes prior to the start of the exercise. If you are not assigned to a specific facility, meet the Responders/Players at least 15 minutes prior to their activation.
4. Obtain or locate necessary communications equipment and test it to ensure satisfactory communication between Controllers and the Senior Controller and/or the Timeline Coordinator.
5. Wear Controller identification, such as the required badge, armband, or vest.
6. Synchronize your watch with the Lead Controller to ensure that the exercise timeline and the Observation Sheets are consistent. Verify weather conditions if actual meteorology is used during the exercise.
7. Distribute, as instructed, an exercise Participant package to specific Responders/Players. This may include exercise limitations, meteorology, instructions, and the exercise telephone directory.
8. Do not enter into personal conversations with any Responder/Player.
9. Deliver your assigned messages at the time indicated. Caution: If the information depends on some action to be taken by the Responder/Player, deliver the message only after the Responder/Player successfully accomplishes the required action.
10. Provide the Senior Controller with the message number and delivery time, when delivery is accomplished.
11. Begin and end all exercises communication over the radio or telephone with the phrase, "THIS IS AN EXERCISE." This precaution ensures that anyone overhearing the conversation knows this is not an actual emergency event.
12. Deliver specific data as directed on the message instructions. (Examples: Vital signs of an accident victim are withheld until the first Responder/Player attempts the appropriate actions for obtaining these; radiation readings are withheld until the technician activates and reads the detection instrument.)
13. Record all activities and the time on your Observation Sheet. Write about specific actions, not opinions.
14. Notify the Lead Controller immediately and ask for direction if Responders/Players do not perform as expected and a contingency message is not provided. All unplanned simulations require the Senior Controller's approval. This differs from free play, where an appropriate action taken by a Responder/Player solves the problem in a unique way.
15. Clarify information to Responders/Players only if it does not provide coaching. Do not prompt a Responder/Player as to what a specific response is unless a contingency message directs you to do so.

**Example: Sample Controller Instructions**

16. Ensure that all Observers stay out of the exercise activity. Notify your Lead Controller or Security if you need assistance.
17. Provide no information to the Responders/Players regarding scenario event progress or resolution of problems encountered by others. Responders/Players are expected to obtain information through their own resources.
18. The Senior Controller notifies Controllers when the exercise is terminated. The exercise is terminated when the Exercise Director, in conjunction with the Senior Controller, determines that all exercise objectives are met, or enough time has elapsed for the objectives to be demonstrated.
19. Obtain copies of Responders/Players logs and pertinent documentation prior to the Post-exercise Briefing and critique. Give this information to the Senior Controller. Coordinate this task with the Evaluator in your area.
20. Summarize your notes and prepare for the local area critique at exercise termination. Turn over the summary to your Lead Controller, who provides this documentation to the Senior Controller.

**Example: Sample Evaluator Instruction**

**EOC Evaluator:** \_\_\_\_\_ **<Name>**

1. "Practice in the Controller and Evaluator Exercise-specific training on May 10, 2xxx, at 11:00 a.m. in the <location>.
2. Report to the visitor center no later than 6:30 a.m. on the morning of the exercise for transportation to the EOC. Bring your C/E Handbook materials with you.
3. Pick up your lunch and "Evaluator" identification at the EOC.
4. Check in with the Lead Evaluator by telephone (X-1234) when you arrive at the EOC.
5. Coordinate with the EOC Controller for conduct of Responders'/Players' **Hotwash** (see Glossary) after the exercise.
6. Report to the <location> at 5:00 p.m. for the Post-exercise Briefing. Bring your evaluation sheets, checklists, and notes from the Hotwash. Dinner is provided. The meeting will end by 10:00 p.m.
7. Attend the DOE management debriefing at 8:00 a.m. the morning after the exercise. The debriefing will be held at the Federal Building, Room 123.

**Protocols**

Protocols are ground rules or rules of conduct to remind exercise Participants of drillsmanship and safety issues.

Take a look at the Example to understand basic protocols of exercise Participants.

<b>Example: Protocols</b>	
<b>Role</b>	<b>Rules</b>
<b>Controllers</b>	<ul style="list-style-type: none"> <li>• Remember: Your primary duty is exercise safety</li> <li>• Do not prompt Responders/Players. An example is “Who did you notify?” versus “Did you notify the State?” The latter question tells the Responder/Player that the State is to be notified</li> <li>• Follow the instructions from the Senior Controller when you suspend, restart, and terminate the exercise</li> <li>• Inform the Evaluator when you issue a contingency message</li> <li>• Ensure all Responders/Players sign-in to receive credit for their participation</li> <li>• Facilitate the Responders’/Players’ Hotwash immediately after the exercise. You may explain why things happened or the Responder/Player expectations but do not comment on performance</li> </ul>
<b>Responders/Players</b>	<ul style="list-style-type: none"> <li>• Monitor your actions. Ensure your safety</li> <li>• Follow all instructions from Controllers unless the instructions place you in danger</li> <li>• Verbalize your thought processes. The Evaluators are not mind readers and you want credit for what you have accomplished</li> <li>• Speak loudly so Evaluators can hear what you are saying</li> <li>• Ask the Controller if you have questions on what you observe or information that is provided. Evaluators are directed not to speak to you</li> <li>• Vocalize “This is an Exercise” at the beginning and at the end of radio and telephone calls</li> <li>• Tell the Controller if Non-responders (Observers) get in your way</li> <li>• Participate in the Responders’/Players’ Hotwash immediately after the exercise</li> <li>• Sign-in to receive credit for your participation</li> </ul>

Example: Protocols	
Role	Rules
<b>Evaluators</b>	<ul style="list-style-type: none"> <li>• Assist the Controllers with monitoring safety</li> <li>• Position yourself to observe and hear the Responders'/Players' performance of their actions but do not get in their way</li> <li>• Ask the Controller if you have a question for Responders/Players</li> <li>• Keep your timeline of observed performance during the exercise; evaluate the performance after the exercise</li> <li>• Evaluate performance against the Responders'/Players' plans and procedures, not what you believe they should be</li> <li>• Attend the Responders'/Players' Hotwash immediately after the exercise</li> <li>• Observe that the Responders/Players are normally "harder" on themselves than you may be. The Hotwash also provides you with the rationale of why they performed specific actions</li> <li>• Do not comment on Responders'/Players' performance during the Hotwash</li> </ul>
<b>Observers and VIPs</b>	<ul style="list-style-type: none"> <li>• Do not ask questions of Responders/Players, Evaluators, or Controllers. All questions are addressed through your Escort (may be an assigned Controller)</li> <li>• Stay out of the way of Responders/Players</li> <li>• Remain quiet. Do not critique nor prompt Responders'/Players' performance</li> <li>• Keep a professional bearing. Remember that the first people to be kicked out due to space restrictions are the Observers and VIPs. The purpose of the exercise is for the ERO to demonstrate its capabilities, controlled by the Control Organization and evaluated by the Evaluators</li> <li>• Ask your Escort/Controller when in doubt</li> </ul>

**Organizations and Assignments**

The conduct of effective emergency exercises depends on the selection and assignment of top-quality Controllers and Evaluators.

Although these individuals are drawn from Non-participating areas of a Response Organization, care is taken to ensure that use of these personnel to support the exercise does not compromise the effectiveness of the Response Organization.

Organizations and assignments are illustrated in simple or complex charts depending on the scope and need of the exercise.

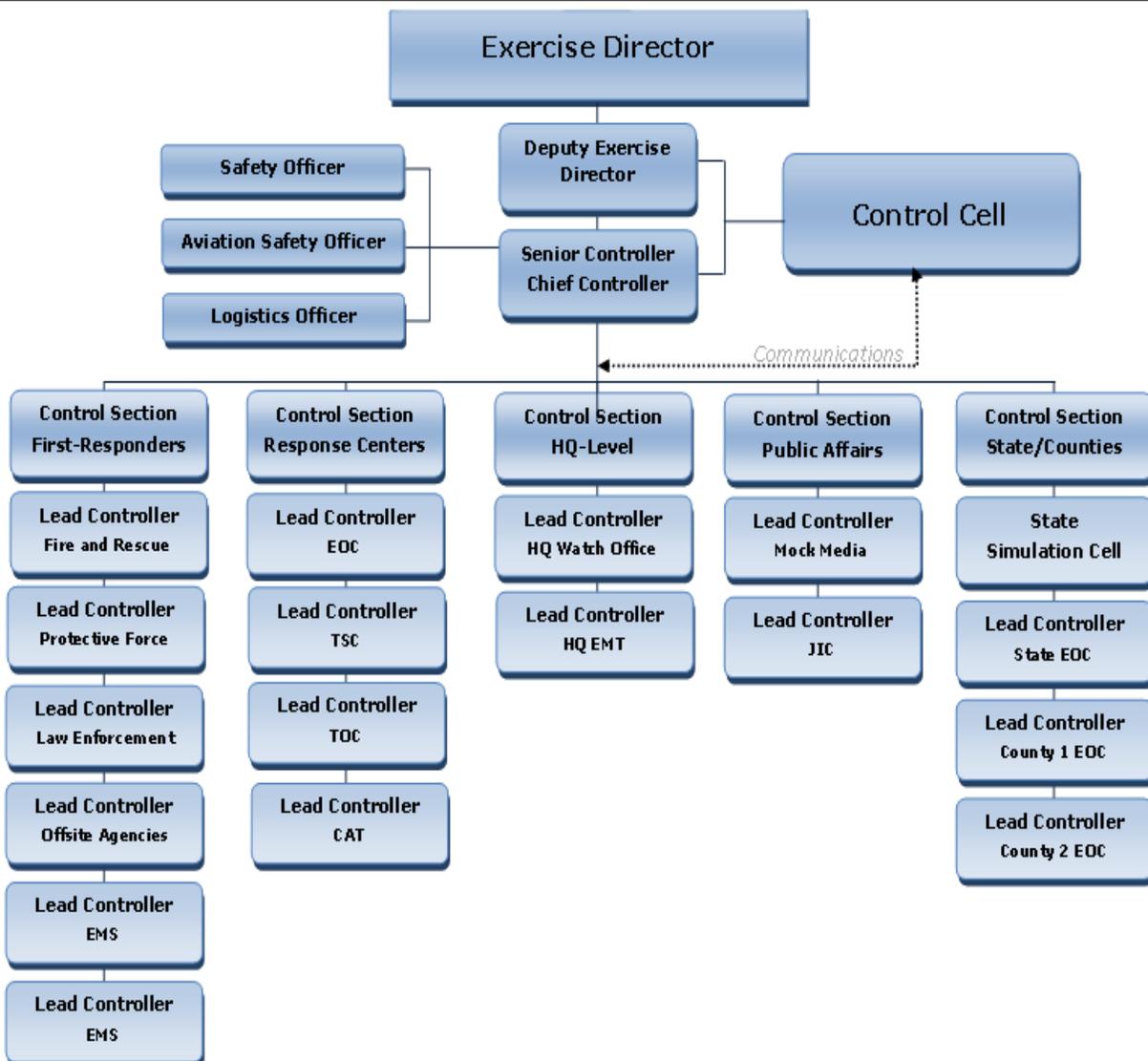
A principal method of information transfer for Controllers is through a designated Controller Communications Radio Network.

Most Controllers have access to a radio that enables them to transmit pertinent information to other exercise Controllers. This network also allows the Senior Controller to make and announce universal changes in exercise documentation, such as changes to the timeline, MSEL, and event injects.

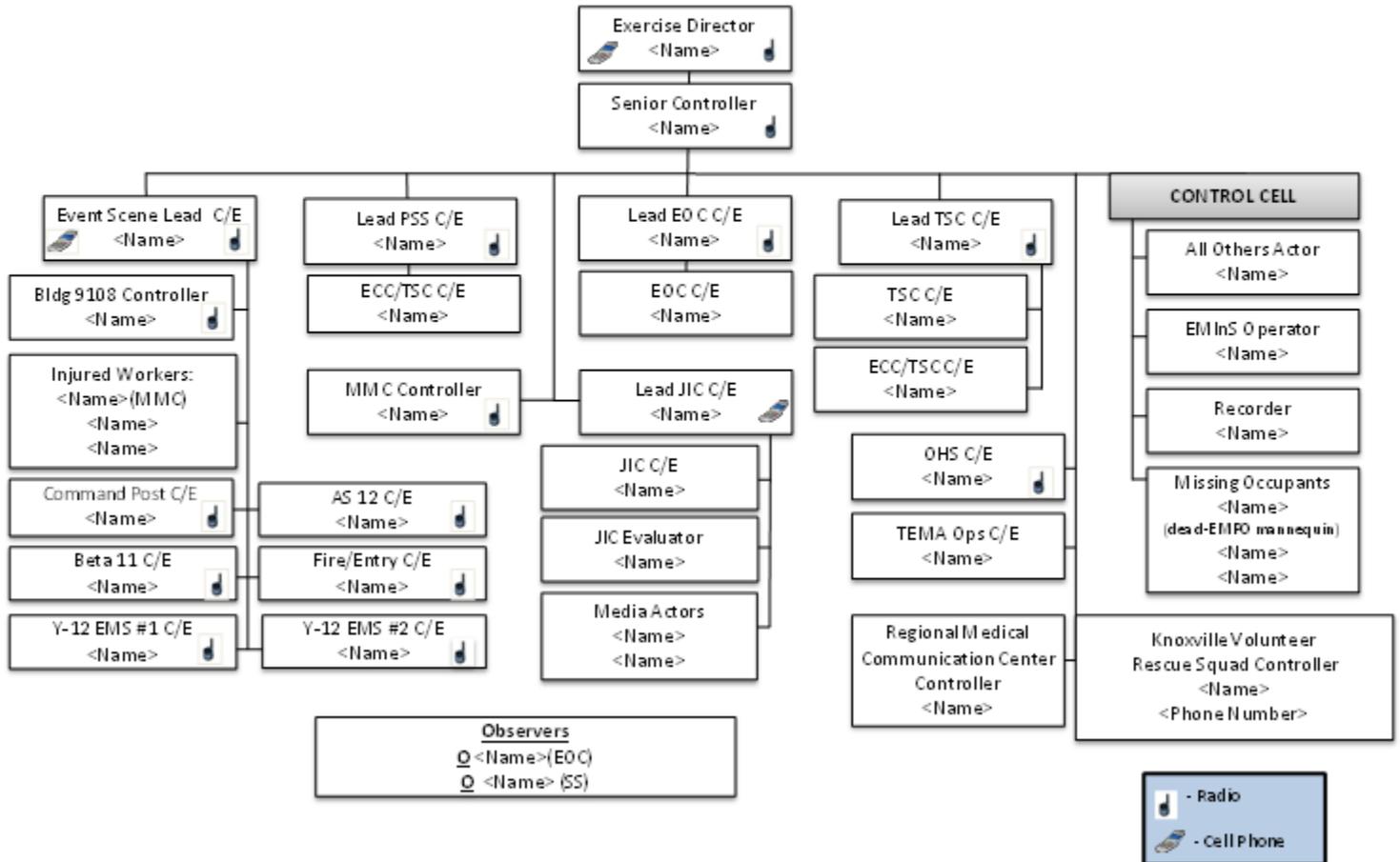
Some sites show radio communications on their organizational charts.

The examples below show how some sites illustrate their Control and Evaluation Organizations. Notice also the span of control for each organization.

**Example: Control Organization**



Example: Combined Control and Evaluation Organizations



**Scenario Materials**

Scenario materials may include the following documents:

- Exercise Objectives
- Scenario Narrative
- Master Scenario Events List
- Messages and Injects
- Exercise Data

Let's see how the Controller and/or Evaluator use each of these documents.

**Scenario Materials: Exercise Objectives**

A Controller must understand the [exercise objectives](#) (see Glossary) to be demonstrated by the organization which he/she is controlling. A Controller must also know the objectives of the organizations that interface with the Responders/Players he/she is controlling.

An Evaluator must understand the relationships among the exercise scope, exercise objectives, evaluation criteria and the Evaluator checklists. This relationship provides the Evaluator with insight on what is to be accomplished by the Responders/Players.

In addition to the exercise objectives for the Participating Organizations, an Evaluator reviews conduct objectives for the exercise.

**Scenario Materials: Scenario Narrative**

The Controller and the Evaluator reviews the [scenario narrative](#) (see Glossary) to learn about the exercise's initial conditions, initial operational conditions, initiating events, expected Responders'/Players' actions, and termination conditions.

<b>Example: Scenario Narrative</b>
<p>A scheduled delivery of 4,000 gallons of nitric acid is due at the delivery dock at 9:00 a.m. At 8:45 a.m., the tanker is involved in an accident in the main intersection near the warehouse.</p> <p>An employee in a nearby office witnesses the accident and calls 911. The employee reports seeing something pouring out of the tanker and the liquid is on fire. He can see yellow-brown smoke. The Shift Superintendent (SS) dispatches Fire and Security to the event scene.</p> <p>The SS selects the appropriate emergency action level and categorizes and classifies the emergency as a General Emergency and provides protective actions to the site.</p> <p>The Incident Commander establishes the Command Post and directs the Industrial Hygienist (IH) to monitor the area for habitability.</p>

**Scenario Materials: A Master Scenario Events List**

A MSEL contains all Controllers' actions before, during, and after the exercise. For easy reference, a Controller may highlight his/her specific responsibilities and which messages to deliver. This allows a Controller to more closely monitor the status of his/her own actions.

The Evaluator uses the MSEL for determining whether and when responses occur. For quick reference, the Evaluator may highlight his/her evaluation responsibilities.

Example: MSEL			
Time	Message Number	Message Summary	Expected Response
-90	1	From Senior Controller to Shift Superintendent: Permission to open exercise window.	Exercise window is opened.
-60	2	From Senior Controller to Lead Safety and Security Controllers: Implement security and safety plans.	Event scene is isolated and safety begins to make final check of simulations.
-10	3	From Senior Controller to all Evaluators and Controllers: Communication check and time check.	
00	4	From Senior Controller to Event Scene Safety Controller: Start smoke generator.	Fire Department receives fire alarm
	5	From Senior Controller to Event Scene Lead Controller: Sound fire alarm.	Fire Department receives 911 call
	6	From Senior Controller to employee Actor #1: Make 911 call	Shift Superintendent and Medical Department monitor 911 call
			Shift Superintendent declares General Emergency
10	7C	From Senior Controller to Shift Superintendent Controller: Emergency Declaration	
15	8	From Senior Controller to Industrial Hygienist (IH) Controller: Monitoring Readings	<ul style="list-style-type: none"> <li>• Incident Commander develops incident action plan</li> <li>• IH monitors Command Post for habitability</li> </ul>

**Scenario Materials: Messages and Injects**

Exercise messages or injects include instructions to Controllers to begin simulations; insert information; or provide earned information, acting instructions, and contingency messages.

Message injects contain accurate, unambiguous, and non-prompting information and technical data for the Responders/Players and provide proper direction for the exercise.

The Controller is familiar with these types of messages.

**Control Messages**

Control messages provide the following:

- Pre-exercise information to a Controller in preparing simulations
- Direction to a Controller such as starting and stopping information
- Management instructions for terminating the exercise

**Example: Control Message**

**Message:** 4

**From:** Senior Controller

**To:** Event Scene Safety Controller

**Time:** 00

**Subject:** Start smoke generator

**Special Instructions:** Ensure smoke generator is set to medium smoke and interval is set at 6.

This is an Exercise

Start the smoke generator and run until +30 minutes OR when the Fire Department places water on the simulated fire.

This is an Exercise

**Time of delivery:** \_\_\_\_\_

[Contextual Messages](#)

A Controller introduces a contextual inject to a Responder/Player to help build the exercise operating environment.

Contextual messages provide the following types of information:

- Information to Responders/Players such as simulated 911 calls
- Questions from the media and governmental officials
- Scripts for Actors simulating Non-participating Organizations

**Example: Contextual Message**

**Message:** 6

**From:** Senior Controller

**To:** Employee Actor #1

**Time:** 00

**Subject:** Make 911 Call

**Special Instructions:** Sound excited, distraught, scared!

This is an Exercise

Make the following 911 call:

“This is an exercise. There is a big tanker truck on fire at the intersection of 1<sup>st</sup> Street and Adams Way. Something is spilling out of the tanker onto the ground and it is on fire. The smoke is a yellowish, brown color. We need help right away. What should I do?”

This is an Exercise

**Time of delivery:** \_\_\_\_\_

**[Contingency Messages](#)**

A Controller verbally introduces a contingency inject to a Responder/Player if he/she does not perform the actions needed to sustain exercise play. Document the use of contingency injects. This ensures that play moves forward as needed to adequately test performance of activities.

A Controller may be delegated extensive, limited, or even no authority to issue messages without the Exercise Director or Senior Controller's direction.

**Example: Contingency Message**

**Message:** 7C

**From:** Senior Controller

**To:** Shift Superintendent Controller

**Time:** 10

**Subject:** Emergency Declaration

**Special Instructions:** None

This is an Exercise

If the Shift Superintendent did not declare a General Emergency, then direct him/her to do so at this time. Document why the Shift Superintendent did not make the correct declaration.

This is an Exercise

**Time of delivery:** \_\_\_\_\_

**Earned Information Injects**

Earned Information Injects are messages that contain data to be provided to a Responder/Player when the function being performed yields specific information.

For example, when an Emergency Medical Service (EMS) Technician(s) begins to treat a patient, vital signs are provided through these injects when the proper actions to earn them are achieved. If the Technician does not perform the appropriate actions, no inject information is provided.

<b>Example: Earned Information Inject</b>	
<b>Message:</b> 8	
<b>From:</b> Senior Controller	
<b>To:</b> IH Controller	
<b>Time:</b> 15	
<b>Subject:</b> Monitor Readings	
<b>Special Instructions:</b> None	
	This is an Exercise
When the IH Technician monitors the atmosphere at the Command Post, then tell the Technician the readings are “as read.”	
	This is an Exercise
<b>Time of delivery:</b> _____	

**Scenario Materials: Exercise Data**

Exercise data varies depending on the type and scope of the exercise. It provides technical data that supports the scenario:

- General Information
- Facility-specific information
- Meteorological data
- Hazardous material data
- Medical data

**Example:** [Body Map](#)

The Controller reviews information to ensure that he/she understands the data and how it is used during the exercise.

Example: Body Map	
 <p style="font-size: small; margin-top: 10px;"> <span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; margin-right: 5px;"></span> <b>Abrasions</b>  <span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); margin-right: 5px;"></span> <b>Contaminated Area</b>  <span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; margin-right: 5px;"></span> <b>Lacerations</b> </p>	<p>Name: _____</p> <p>Badge: _____</p> <p>Age and Sex: Actual for actor</p> <p>Vital Signs: <span style="float: right;">BP is 96/60</span></p> <p style="text-align: right;">Pulse is 110 rapid and weak</p> <p style="text-align: right;">Respiration: 26 and labored</p> <p style="text-align: right;">Conscious but very apprehensive</p> <p style="text-align: right;">If patient is put on O2 and IV and wound covered properly</p> <p style="text-align: right;">Respiration is 24, pulse 100, BP 98/68 and color improving</p> <p>Injuries:</p> <p>#1. Sucking chest wound.</p> <p>#2. Patient is blue in color.</p> <p>#3. Possible internal injuries.</p> <hr/> <p><b>INITIAL CONTAMINATION AFTER REMOVAL OF ANTI-Cs:</b></p> <p style="text-align: right;">Left Forearm: 4300 cpm</p> <p style="text-align: right;">Right upper arm and shoulder: 3400 cpm</p> <p><b>CONTAMINATION AFTER GARMENTS ARE REMOVED:</b></p> <p style="text-align: right;">Left Forearm: 1300 cpm</p> <p style="text-align: right;">Right upper arm and shoulder: 1100 cpm</p> <p><b>CONTAMINATION AFTER 1st DECON:</b></p> <p style="text-align: right;">Left Forearm: 250 cpm</p>

**Safety and Security Plans**

A Controller and an Evaluator review exercise Safety and Security Plans to ensure an understanding the following:

- Physical security (e.g., facility access control)
- Safety (e.g., the location of fire doors)
- Information security (e.g., the location of Classifiers to ensure classified information is not divulged)

Each Controller and Evaluator also uses the information to ensure all Participants comply accordingly.

**Note:** Sites may not give plans to all Controllers and Evaluators, but all are briefed on safety and security requirements.

**Observation Sheets**

Observation Sheets are forms used by each Controller and Evaluator to document his/her notes from the onset of pre-exercise activities through the conclusion of exercise activities.

They consist of a simple table with a space to record the time of observation and what was observed. There is also a space to record exercise position, name, and telephone number.

Example: Observation Sheet	
<b>Controller/Evaluator Timeline of Observations</b>	
<p><b>&lt;Exercise Title&gt;</b> <span style="float: right;"><b>&lt;Date&gt;</b></span></p> <p><b>Position:</b> _____</p> <p><b>Name:</b> _____</p> <p><b>Telephone Number:</b> _____</p>	
Time	Observation

**Communication Directories**

Several communication directories are used in an exercise:

- Controller/Evaluator Directory
- Exercise Directory or Control Cell Directory
- Responder/Player Directory

**Controller/Evaluator Directory**

This directory:

- Is provided to Controllers and Evaluators
- Includes telephone and radio channels and frequencies used for communication within the Control and Evaluation Organizations
- Is not shared with the Responders/Players

<b>Example: Controller/Evaluator Directory</b>			
<b>Position</b>	<b>Name</b>	<b>Phone</b>	<b>Radio Call Sign</b>
<b>Exercise Management</b>			
Exercise Director	Terry Nore	Cell 292-xxxx (pg 916-1004)	Exercise 1
Senior Controller	Roger Paul	241-xxxx Cell 719-xxxx (pg 916-xxxx)	Exercise Control
Timeline Coordinator	Sabrina Hampton	241-xxxx (pg 916-xxxx)	Timeline Coordinator
Safety Officer	Jennifer Emch	Cell 719-xxxx (pg 916-xxxx)	Exercise Safety
Lead Evaluator	Robert Gee	(pg 916-xxxx)	NONE
<b>Event Scene</b>			
Event Scene Lead Controller	Donnie Eblen		Event Scene Lead
Incident Command Controller/Evaluator	Bobby Prewitt		Exercise IC
FPO Entry C/E	Luis Revilla		Exercise Entry
Y-12 EMS C/E	Theresa Hubbs		Exercise EMS 1
Staging C/E	Gary Lowery		Exercise Staging
IC Technical Team C/E	Laura Oxley		Exercise IC Technical Team
Shift Manager C/E	Melanie Dillon		Exercise Shift Manager
Assembly Station 7 C/E	Eddie Price		Exercise Assembly Station 7
Assembly Station 7 RADCON C/E	Craig Schwartz		NONE
Y-12 Medical C/E	Nancy Underwood		Exercise Medical
EMRT C/E	Charlotte Brown		NONE
Lead HSTC C/E	Sandy Lyles		Exercise TSC
OMT C/E	Carol Steelman		Exercise OMT 1
<b>Plant Shift Superintendent</b>			
Lead PSS/TSC C/E	Bob Murawski		Exercise PSS Lead
Beta 2 C/E	Lt John Miller		Via TSC Lead
<b>Technical Support Center</b>			
TSC C/E	Ken Steele		Via TSC Lead
TSC Tactical Room C/E	Lt John Miller		Via TSC Lead
TSC Technical Room C/E	Shana Peterson		Via TSC Lead
<b>Y-12 Emergency Operations Center</b>			
Lead EOC C/E	Linda Murawski		Exercise EOC Lead
EOC C/E	Don Trundle		Via EOC Lead
Consequence Assessment C/E	Jamie Wright		Via EOC Lead

<b>Example: Controller/Evaluator Directory</b>			
<b>Position</b>	<b>Name</b>	<b>Phone</b>	<b>Radio Call Sign</b>
<b>Control Cell</b>			
Recorder	Victoria Steward		NONE
All Others Onsite	Alisa Lane		NONE
All Others Offsite	Mike Napier		NONE
<b>HQ Watch Office &amp; OROC</b>			
OROC C/E	Stuart Bayne		NONE
<b>Facility Support Contacts</b>			
Lead 9215/Reentry C/E	Richard Trindle		Exercise 9215 Lead
NMC&A C/E	Nick Allison		NONE

**Exercise Directory or Control Cell Directory**

This directory:

- Is provided to Control Cell Controllers
- Lists the telephone numbers of Responders/Players who may need to be contacted by the Control Cell

<b>Example: Exercise Directory</b>	
<b>Contractor Positions</b>	<b>Phone</b>
Crisis Manager	800-555-8971
Operations Manager	800-555-3915
Response Manager/Event Contractor Manager	800-555-8970
Security Emergency Director	800-555-5616
Consequence Assessment Manager	800-555-8965
Public Information Director	800-555-9378
Recovery Manager	800-555-8967
General Counsel	800-555-8968
EOC Coordinator	800-555-9377
Fire Specialist	800-555-5618
Protective Force Operations Coordinator	800-555-5619
Dispersion Modeling	800-555-4387
Environmental Coordinator	800-555-9379
Field Monitoring Team Coordinator	800-555-8962
State Technical Liaison	800-555-4631
RADCON	800-555-5631
<b>DOE Positions</b>	
Emergency Manager	800-555-5552
Security Operations Specialist	800-555-9381
Public Affairs Coordinator	800-555-8972
Consequence Assessment Manager	800-555-5630
EOC Director	800-555-6029
DOE HQ Communicator	800-555-5966
<b>State Positions</b>	
TEMA Representative	800-555-4570
<b>Facsimiles</b>	
Incoming Line #1	800-555-1152
Incoming Line #2	800-555-1153

<b>Example: Exercise Directory</b>	
Facsimile Verification	800-555-5908
<b>Backup Exchange Telephones</b>	
Crisis Manager	800-555-8728
Crisis Management Team	800-555-8836
Response Team	800-555-9555
Consequence Assessment Team	800-555-9557
Operations Team	800-555-9544
Teleconferencing Room	800-555-8669

**Responder/Player Directory**

This directory:

- Is provided to Responders/Players
- Lists the phone, fax and/or radio net of simulated organizations

<b>Example: Responder/Player Directory</b>		
<b>Organization</b>	<b>Phone</b>	<b>Fax Number</b>
<b>Y-12 National Security Complex Organizations</b>		
Emergency Operations Center	Actual	
Health and Safety Team Coordinator	Actual	
Plant Shift Superintendent	Actual	
Technical Support Center	Actual	
All other Y-12 Internal Organizations	241-xxxx	Fax 241-xxxx
<b>NNSA and DOE Organizations</b>		
DOE HQ Emergency Operations Center	241-xxxx	Fax 241-xxxx
DOE HQ Watch Office	Actual	
Oak Ridge National Lab LSS Office	Actual	
Oak Ridge Operations Center	Actual	
Other DOE Federal Agencies	241-xxxx	241-xxxx
<b>State and Local Governments and Agencies</b>		
Anderson County	241-xxxx	Fax 241-xxxx
City of Oak Ridge 911 Center	Actual	
Methodist Medical Center	241-xxxx	Fax 241-xxxx
Other State and Local Agencies	241-xxxx	Fax 241-xxxx
Regional Medical Communications Center	Actual	
State of Tennessee Emergency Operations Center	241-xxxx	Fax 241-xxxx
TEMA Operations Officer	Actual	
Other State and Local Agencies	241-xxxx	Fax 241-xxxx
<b>Other Governments and Agencies</b>		
All local and national news media outlets	241-xxxx	Fax 241-xxxx
Other Federal Agencies	241-xxxx	Fax 241-

**Exercise Evaluation Guides**

Exercise Evaluation Guides (EEGs) are the primary tools used by an Evaluator to analyze the response. The EEGs list the exercise objectives to be demonstrated, and the criteria for meeting each objective. Based on the information observed and documented on Observation Sheets, the Evaluator fills out the EEGs after the exercise.

Finally, the EEGs include the definitions of the rating system used to document performance.

<b>Example: Rating System</b>	
The following definitions of the rating system are used to document performance.	
<b>Noteworthy Practices</b>	<p>Actions worthy of being emulated by other DOE/NNSA facilities/sites or activities. When an evaluated organization demonstrates a superior and unique approach, technique, product, tool, etc., this may be documented as a Noteworthy Practice.</p> <p>Noteworthy Practices are described in sufficient detail so that interested parties and subsequent reviewers understand the justification for the designation and can modify the practice to suit their particular situation.</p>
<b>Superior Performance</b>	<p>Observed site performance or documented practice that demonstrates/implies excellence in a specific aspect of an emergency management activity. They are not necessarily recommended for other DOE/NNSA sites across the complex.</p> <p>Examples need not be developed for every facility/site or activity; therefore, the absence of specific instances of Superior Performance does not reflect shortcomings on their part.</p>
<b>Met</b>	Responders/Players met their exercise objective. The Evaluator documents his/her observations.
<b>Not Met</b>	The Responders/Players did not meet their exercise objective. The Evaluator documents why the objective was not met.
<b>Not Observed</b>	The Evaluator did not observe the performance.
<b>Not Applicable</b>	The Responders/Players did not have the opportunity to meet the objective either due to early termination or required conditions did not exist for their completion of the action.

**Example: Exercise Evaluation Guides**

**Objective:** Given an Operational Emergency, *activate the EOC, achieve operational status, and staff the EOC in accordance with xxxxx procedures.*

**Criteria:**

P/E8.1 A facility is available for use as a command center by the Emergency Director (ED) and the members of the ERO during an emergency response.

P/E6.7 The ERO activation is based on actual or potential emergency conditions.

P/E6.8 Initial response functions are performed by on shift operations staff.

P/E6.9 The ERO is functionally staffed and activated in a timely manner; key emergency response facilities are operational within an hour after declaration of an Operational Emergency.

**References:** Site Emergency Plan, Site EOC Implementing Procedure.

**CHECKLIST**

Criterion P/E8.1 –

\_\_\_\_\_ A facility is available for use as an EOC.

Criterion P/E6.7 –

\_\_\_\_\_ ERO activation is based on criteria specified in the Emergency Plan

Criterion P/E6.8 –

\_\_\_\_\_ On shift operations staff has completed initial response functions according to the Emergency Plan.

Criterion P/E 6.9 –

1. The following positions were staffed within 1 hour:

\_\_\_\_\_ Emergency Director

\_\_\_\_\_ Federal Communicator

\_\_\_\_\_ Plume Modeler

\_\_\_\_\_ .....per procedure

2. The Emergency Director

\_\_\_\_\_ Completed a turnover from the Shift Supervisor and assumed overall direction and control within 15 minutes of arrival at the EOC

\_\_\_\_\_ .....per procedure

**OBJECTIVE STATUS**

**MET \_\_\_\_\_ NOT MET \_\_\_\_\_ NOT OBSERVED \_\_\_\_\_**

**JUSTIFICATION:**

**Note:** This concludes the Sample Controller and Evaluator Handbook examples.

**Controller and Evaluator Exercise-specific Training**

<b>Controller and Evaluator Task:</b>	Attends required Controller and Evaluator Exercise-specific Training.
---------------------------------------	---

The Controller and Evaluator Exercise-specific Training assists in preparing Controllers and Evaluators for performance of their functions.

Controller and Evaluator Exercise-specific Training includes the following:

- A detailed review of the scenario, normally accomplished by reviewing the MSEL
- Review of the Safety and Security Plans
- Identification of the pre-approved simulations and how each is implemented
- A schedule for pre-exercise, exercise, and post-exercise activities



Controllers and Evaluators Attending Exercise-specific Training

- Team building where the Controllers and Evaluators meet other members of the Control and Evaluation Organizations and to work out positioning, transportation needs, and any other administrative or technical issues or concerns

During this training, each Controller and Evaluator asks questions, receives clarification about the exercise activities, and ensures that he/she completely understands his/her roles and responsibilities.

**Responder/Player and Observer Briefings**

<b>Controller and Evaluator Task:</b>	Attends Responder/Player and Observer Briefings.
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Responder/Player and Observer Briefings are accomplished through formal briefings, postings, e-mails, or Web sites. It is important for Controllers and Evaluators to be aware of what is communicated to Responders/Players and Observers prior to an exercise. As part of the evaluation of the Control Organization, Evaluators may be required to evaluate these types of briefings.

Responders/Players and Observers are normally briefed regarding:

- Rules of conduct
- Scope of the exercise



Observer Briefing

- Safety and security precautions
- Approved simulations
- Methods for identifying various exercise Participants
- Any special administrative, logistical, or communications arrangements in effect during the exercise

Observers may attend the Controller and Evaluator Exercise-specific Training or may be provided separate briefings.

**Staging Area**

<b>Controller and Evaluator Task:</b>	Reports to staging area.
---------------------------------------	--------------------------

Unless the Controller and Evaluator are at a remote facility/area(s), he/she reports to the staging area arriving on time with his/her notes, Observation Sheets, identification (vest, hat, arm band), safety equipment (hard hat, safety glasses), scenario messages, data sheets, communications directories or communications equipment, and any other materials assigned.

**Note:** The Exercise Director and the Senior Controller ensure that all positions are filled. If the Controller or Evaluator is not on time, the Exercise Director and Senior Controller must find an alternate to fill the assigned position.



Staging Area

At the staging area, each Controller and Evaluator does the following:

- Reports to the Senior Controller
- Receives last minute instructions
- Picks up needed equipment (i.e., vest, radio, personal protective equipment) from the Senior Controller
- Receives instructions on how to use radio, if applicable, and what call sign is assigned
- Confirms directions to the assigned facility/area(s)

**Simulations**

<b>Controller Task:</b>	Set-up approved simulations.
-------------------------	------------------------------

The Controller uses the MSEL to set-up approved simulations such as:

- Preparation of smoke generators
- Positioning of special equipment or vehicles
- Creation of simulated spills
- Positioning of injured Actors/Role Players

Pre-staging for later use in the exercise or for contingency purposes

**Note:** A Controller does not allow Responders/Players to pre-stage unless it is pre-approved.



Simulation Set-up

<b>Example: Simulation 1</b>	
<b>Simulation</b>	<b>Simulation Method</b>
Moulage Actors:	Moulage 8 Actors to simulate the injured persons.
Ambulance Maintenance Casualty	One ERC ambulance will be tagged out for use as the shadow force ambulance.
Fire Alarm	The fire alarm will sound on the loading dock of Building X-100 by pulling the pull box.
Smoke and Fire	The fire at the event scene will be simulated by using the smoke generator and digitized photographs.
State EOC	The State EOC will be simulated in the ERC Control Cell by Actors.
Joint Information Center	The JIC will be simulated in the ERC Control Cell by actors.
HQ EOC	The HQ EOC will be simulated in the HQ EOC by HQ Actors.
Offsite Medical	Lomas Flats Medical Center will receive the Patients but will not simulate treatment or decontamination. The Patients will be staged next to the ambulance dock and be returned to the ERC by the logistics team.
Protective Actions	Protective actions on the ERC will be limited to Building X-100. The event scene will be cordoned to keep non-participants away from the exercise.
Emergency Lights and Sirens	Emergency lights and sirens are authorized onsite but NOT offsite. All traffic laws will be followed.
Missing Persons	Three Building X-100 employees will be randomly selected by the Lead Event Scene Controller during the building evacuation as "missing" employees. They will be found uninjured by the entry team.
Truck Placard	The truck will have the placard 2032 on the side in accordance with DOT procedures.

<b>Example: Simulation 2</b>	
<b>Simulation</b>	<b>Simulation Method</b>
Simulated Organizations	Controllers will issue a Responder/Participant Directory listing simulated personnel and organizations.
Access and Egress Controls	Access and Egress controls will be simulated. No portals will be impacted during the exercise.
Alarmed Doors	The Security/RADCON Plan identifies alarmed doors which may be accessed.
Emergency call-in of off-shift personnel	Emergency call-in of off-shift personnel will be simulated by a call to the Control Cell.
Ambulances	One ambulance is down for maintenance.
Fire and Smoke	Simulated by digitized photographs.
Ventilation Systems	Controllers will issue a Responder/Participant Directory listing simulated personnel and organizations.
Protective Actions	Simulated except for the buildings within the exclusion (evacuation) zone.
Medical Operations	<ol style="list-style-type: none"> <li>1. Body Maps and moulage will be used to simulate injuries and contamination.</li> <li>2. Invasive procedures will be simulated.</li> <li>3. Actors will wear privacy clothing (swim suit) under their clothing and PPE.</li> </ol>
Mutual Aid Ambulances	Request for EMS support will be actual. EMS response is simulated in the Exercise Control Cell.
Transport to Offsite Medical Facilities	Simulated by transporting the patient to the Exercise Control Cell.
Use of Water	Fire attack hose lines will not be charged. All other use of water is allowed (field and medical decon).
Fire Fighting Operations	Fire entry will be simulated by stopping at the facility entrance door and 'talking through' the response.
Monitoring Data	Monitoring data will be provided to responders as they correctly monitor evacuees, equipment and surrounding areas.

**Pre-start Safety Checks**

<b>Controller Task:</b>	Conducts pre-start safety checks.
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The Controller uses Safety and Security Plans and the MSEL to conduct pre-start safety checks.



Pre-start Safety Check

**Example: Pre-start Safety Checks**

A few examples of pre-start safety checks follow:

- Checks simulations safety
- Posts “EXERCISE IN PROGRESS” signs
- Conducts weapons safety checks
- Conducts final communications check with Senior Controller

**Roles and Responsibilities Prior to an Exercise Section Quiz**

**Instruction:** Select the one best answer. Answers are given following this quiz.

- 1 of 4: What does a Controller use to set-up approved simulations?
- A. A Controller does not set-up simulations
  - B. Observation Sheet
  - C. Master Scenario Events List
  - D. Data Sheets
- 2 of 4: This document lists the exercise objectives to be demonstrated, and the criteria for meeting each objective.
- A. Master Scenario Events List
  - B. Exercise Evaluation Guide
  - C. Observation Sheet
  - D. Exercise Instructions
- 3 of 4: This provides a detailed review of the scenario, normally accomplished by reviewing the MSEL, review of safety and security plans, and the identification of pre-approved simulations and how they are implemented.
- A. Controller and Evaluator Exercise-specific Training
  - B. Controller and Evaluator Post-exercise Briefing
  - C. Responder/Player Pre-exercise Training
  - D. Responders'/Players' Hotwash
- 4 of 4: Why is it important for Controllers and Evaluators to attend a Responder/Player Briefing?
- A. Evaluators may be required to evaluate this type of briefing
  - B. Controllers and Evaluators need to be knowledgeable about the exercise timeline
  - C. Controllers and Evaluators need to be aware of what is communicated to Responders/Players
  - D. Both A and C

**Section Quiz Answers (Note: Correct Answers are in bold)**

1 of 4: What does a Controller use to set-up approved simulations?

- A. A Controller does not set-up simulations
- B. Observation Sheet
- C. Master Scenario Events List**
- D. Data Sheets

2 of 4: This document lists the exercise objectives to be demonstrated, and the criteria for meeting each objective.

- A. Master Scenario Events List
- B. Exercise Evaluation Guide**
- C. Observation Sheet
- D. Exercise Instructions

3 of 4: This provides a detailed review of the scenario, normally accomplished by reviewing the MSEL, review of safety and security plans, and the identification of pre-approved simulations and how they are implemented.

- A. Controller and Evaluator Exercise-specific Training**
- B. Controller and Evaluator Post-exercise Briefing
- C. Responder/Player Pre-exercise Training
- D. Responders'/Players' Hotwash

4 of 4: Why is it important for Controllers and Evaluators to attend a Responder/Player Briefing?

- A. Evaluators may be required to evaluate this type of briefing
- B. Controllers and Evaluators need to be knowledgeable about the exercise timeline
- C. Controllers and Evaluators need to be aware of what is communicated to Responders/Players
- D. Both A and C**

**Direction and Control**

<b>Controller Task:</b>	Provides overall direction and control of the exercise.
-------------------------	---

Direction and control involves the following:

- Starting the Exercise
- Maintaining Safety and Security
- Presenting Scenario Simulations
- Using Scenario Messages
- Presenting Scenario Information
- Allowing Free Play
- Maintaining Exercise Pace and Focus
- Continuity of Scenario and Exercise Timeline



Controller Presenting Scenario Information

**Starting the Exercise**

The Exercise Director begins the exercise when:

- All Controller and Evaluators are in place
- Positive communications are established with all Controllers
- The site is under normal operating conditions
- Exercise Safety and Security Plans are implemented
- Pre-exercise simulations are established
- Shadow Forces are in place (Fire, EMS, and security forces to handle an actual event while exercise is in progress)
- Exercise Control provides all Controllers the exercise start time

**Note:** The Senior Controller gives the Control Organization a time check (synchronizing watches) to ensure that all Controllers are on the same time. Controllers share exercise start time with Evaluator(s) in assigned facility/area(s).

**Maintaining Safety and Security**

A Controller maintains safety and security precautions by preventing Responders'/Players' actions that may compromise the safety or security of personnel or the assigned facility/area(s)

Although a response Safety Office is assigned, a Controller's primary responsibility is to ensure a safe response.

A Controller:

- Must stop any action that violates any safety or security protocol
- Intercedes in exercise play only when warranted by safety or security considerations

<b>Example: Safety Considerations</b>
Since Controllers monitor for safety, consider (advance planning) additional hazards present during the exercise, such as <ul style="list-style-type: none"><li>• Heat/cold stress. Plan for availability of water for heat stress or portable heaters for cold stress</li><li>• Road closures. Consider closing adjacent or involved roadways during the exercise</li></ul>

<b>Example: Security Considerations</b>
Some considerations to ensure that established security protocols are followed: <ul style="list-style-type: none"><li>• Alarmed doors. Limit the number of alarmed doors that are allowed to be crashed</li><li>• Security posts. Simulate the evacuation of security posts</li></ul>

**Presenting Scenario Simulations**

The Controller sets the stage for the event in his/her assigned facility/area(s).

The Controller depends on direction from the Senior Controller. A Controller either initiates simulations or provides the description of the initial conditions to the Responders/Players.

Visual cues such as victim moulage, liquids, solids, smoke, and other stage props make the event appear to the Responders/Players as if it were actually occurring.

**Using Scenario Messages**

A Controller uses prepared scenario messages (also known as Controller injects, cue cards, and data input) as outlined in the MSEL and/or directed by the Senior Controller and the Lead Controller.

A Controller injects messages through one of three methods: [voice](#), [hard copy](#), or [face-to-face](#).

### **Voice Messages**

A Controller injects oral messages to control progress of the exercise scenario. These messages describe or simulate an event or condition, or initiate a specific activity to keep the scenario on track.

These messages are given by an on-scene Controller at facility/ area(s), or over the phone or radio by a remote Controller at a different location such as a Control Cell. At a specified time, a Controller contacts the appropriate Responder(s)/Player(s) and reads the prepared condition or event text verbatim.

### **Hard Copy Messages**

Hard copy messages simulate electronic messages, memoranda, Material Safety Data Sheets, strip charts, news bulletins, etc. At a designated time, a Controller delivers the hard copy message to the appropriate Responder(s)/Player(s).

### **Face-to-Face Contact**

Occasionally, a selected Controller(s) plays the role of a Senior Official, a decision maker, or an outside agency representative. While role-playing the Controller interacts face-to-face with Responders/Players and provides information or responses to questions in a fashion appropriate for the role he/she is playing.

These messages include information on the placement of props, initial conditions, set-up of the area, and placement of Observers/VIPs.

Messages that are dependent on the completion of other activities also include information on what to do if that initiating activity is not completed.

If Responders/Players require clarification (i.e., a reasonable request) about a particular message or visual cue, the Controller provides such data/information as accurately as possible considering simulated time and scenario conditions, then advises the Lead Controller of his/her inject.

If a Controller needs to create additional information (e.g., the message was incomplete) or does not know the information required, he/she uses pre-arranged protocols (e.g., obtains Lead Controller permission) to formulate a response.

### **Presenting Scenario Information**

Scenario information (including physical evidence and visual cues) is presented by a Controller in a realistic manner to the Responders/Players as it is normally found, measured, or otherwise indicated.

For consistency and documentation, a Controller uses data and instrument readings provided in his/her C/E Handbook when giving technical information to Responders/Players.

For example, after a field measurement is taken, a Controller injects the measurement value.

A Controller withholds earned information until actions that would yield that information are completed.

**Allowing Free Play**

The Controller monitors **free play** (see Glossary), notes activities, and intercedes when free play exceeds the limits established for the exercise or when safety is jeopardized.

If Responders'/Players' actions compromise safety or exceed established limitations, the Controller notes the intended action but prevents that action from actually occurring.

Don't forget to notify the Lead Controller and/or Senior Controller of these activities.

<b>Example: Free Play Exceeding Limits</b>
The Shift Superintendent decides to shelter-in-place the entire site to err on the side of caution. Since this protective action exceeds the scope of the exercise, the Controller gives the Shift Superintendent credit for the decision and directs the shelter-in-place to be simulated.

<b>Example: Free Play Jeopardizing Safety</b>
The Incident Commander directs Emergency Medical Services to transport minor injuries in the bed of an available pick-up to the Medical Clinic. Since this violates a standing safety protocol, the Controller steps in and does not allow this action.

**Maintaining Exercise Pace and Focus**

The Senior Controller, with the assistance of the Timeline Coordinator, manages the exercise and ensures that the sequence of events identified in the exercise timeline and MSEL occurs as close to schedule as possible.

A Controller follows the MSEL in order to keep his/her respective parts progressing in accordance with the scenario.

Controllers keep the Lead Controller advised of the progress of the scenario.

**Continuity of Scenario and Exercise Timeline**

A Controller ensures the continuity of the scenario and the exercise timeline, as follows:

- Understands the dynamics of an action or activity as it unfolds
- Maintains the sequence of events
- Controls the flow of approved message injects and instructions
- Advises the Senior Controller on the response progress

**Documenting Observations**

<b>Controller and Evaluator Task:</b>	Documents what he/she observes.
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Each Controller and Evaluator uses Observation Sheets to document his/her observations.

Each Controller documents the time of all significant activities associated with his/her part of the exercise, to include the following:

- Message delivery
- Contingency message delivery
- Responders/Players' key decisions and mitigation action
- Free play
- Conversations with Responders/Players, other Controllers, Evaluators, Observers/VIPs and Non-exercise Participants



**Controller/Evaluator Documenting Observations**

A Controller notes the effects of message(s) on play and any unexpected activities, and reports any discrepancy/deviation in scenario progress immediately to the Senior Controller.

An Evaluator observes and documents Responders/Players and Controller performance activities during the exercise.

An Evaluator uses the following techniques for effective observation and documentation:

- Observes Responders/Players' actions, including free play, and hears conversations without interfering with those activities
- Takes detailed notes concerning activities observed, including the time of occurrence
- Stays in close proximity to Responders/Players decision makers
- Focuses on critical activities



**Controller/Evaluator Observing Responders/Players**

**Example: Critical Activities**

Although numerous events may occur simultaneously, an Evaluator records only the critical activities to eliminate superfluous information and provides the kind of data most useful for exercise evaluation. Important events to record include the following:

- Dose assessment decisions
- Protective action decisions
- Command and control issues
- Initiating scenario events (including when Responders/Players first detect abnormal conditions)
- Emergency facility activation and staffing completion
- Reactions of Responders/Players to the scenario
- Key decisions made by Managers and the time they make them
- Deviations from plans and implementation procedures
- Times when mitigating action are taken

**Note:** This is not an all inclusive list. Check the exercise MSEL for critical activities.

**Documenting Observations – Watching for Pitfalls**

A Controller and an Evaluator watches for the following pitfalls:

- Inability of Responders/Players to implement management directives.

**Example: Notifications**

Incomplete notifications are being made to DOE Headquarters in accordance with the emergency plans and procedures.

- Inability of technical support to monitor and assess actions being taken



Controllers/Evaluators Watching for Pitfalls

**Example: Consequence Assessment**

Consequence assessment personnel fail to inform management that shelter-in-place of employees is unsatisfactory due to the type of material being released.

- Inability to communicate

**Example: Sensitive Materials**

Sensitive materials are to be communicated but the Responders/Players cannot find the Secure Telephone Unit (STU) key.

- Inability of Incident Command System to dispatch agencies. This is normally observed when mutual aid organizations are used with incompatible communications systems
- Deviations from plans and procedures affecting response
- Confusing simulations

**Example: Simulation**

One of the most confusing simulations is the use of pre-determined meteorological conditions (wind speed and direction) in the field. The Responders/Players feel the wind direction one way but the simulated wind may be from the opposite direction. This impacts the location of the Command Post and Command Post safety monitoring.

- Free play may allow Responders/Players to make decisions that result in unanticipated actions. The Control Organization should let the free play occur as long as it does not impact the opportunity of another organization to meet its objectives or violate safety and security protocols

**Example: Free Play**

The IC determines that there are sufficient ambulances to manage the response. This may be a correct decision but it results in mutual aid ambulances not being provided the opportunity to participate.

**Reporting Activities**

<b>Controller Task:</b>	Reports status of the response and any significant unplanned activities in his/her assigned facility/area(s) to the Lead Controller.
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The Controller reports the status of the exercise play and objectives in his/her assigned facility/area(s), especially any critical pre-identified time-urgent responses.

**Example: Responses to Report**

The following responses are documented and reported because of their time-urgent response:

- Notifications
- Categorization and Classifications
- Declaration of operational status of the EOC, JIC, and Field Operations
- Mutual aid assistance transport

**Example: Responses to Report**

- Suspensions
- Delivered messages and injects
- Distribution of news releases
- Press briefings

**Note:** This is not an all inclusive list. Please review the MSEL for critical activities.

The Controller also reports any significant unplanned activities in his/her assigned facility/area(s).

**Example: Unplanned Activities**

Unplanned activities may include the following:

- Actual events
- Safety concerns
- Security concerns
- Responder/Player misinterpretations
- Simulation mishaps



Controller Reports Non-Player  
Who Has a Delivery

**Suspending Exercise Activities**

<b>Controller Task:</b>	Suspends exercise activities in the assigned facility/area(s) and reports suspension to the Senior Controller.
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The EXPLAN identifies how the Control Organization is notified and the procedures for exercise suspension, restart, and/or termination.



Exercise in Suspension

**Example: Sample Suspension and Termination Instructions**

The exercise is scheduled to begin at 8:00 a.m. Mountain Standard Time (MST) or 10:00 a.m. Eastern Standard Time (EST). No Responders/Players are pre-positioned, and response is in accordance with established policies and procedures. The exercise is scheduled to run 6 hours with termination at 2:00 p.m. MST/4:00 p.m. EST. Each emergency response facility participating in the exercise conducts a critique of its involvement immediately following the exercise. All Controllers and Evaluators are to take notes of items identified by the exercise Responders/Players. If Controllers or Evaluators are asked for their impressions of how things went, specific issues or problems are not discussed.

The Exercise Director terminates the exercise when exercise objectives are either demonstrated or given an adequate opportunity to be demonstrated. Following consultation with the Senior Controller and Lead Exercise Evaluator, the Exercise Director makes the announcement concerning exercise termination.

If an actual emergency occurs, the exercise is suspended or terminated at the discretion of the Exercise Director. DOE/NNSA, Federal, State, Tribal, local, or DOE/NNSA contractor authorities, depending on the nature of the incident, may recommend termination to the Exercise Director.

If the exercise is suspended, the Controllers instruct the Responders/Players to safely stop in place. The Exercise Director, in consultation with the Lead Controller from the Participating Organizations, determines conditions for restart of the exercise. The Controllers are instructed on restart conditions.

Source: DOE G 151.1-3, page B-17

A Controller uses pre-arranged protocols to suspend exercise activities.

The Controller ensures that Responders/Players clearly understand when suspending, restarting, or terminating actions are implemented.

A Controller also provides specific instructions to Responders/Players covering any requirements or activities they must undertake.

**Exercise Suspension**

Provisions for suspension or premature termination of the exercise for safety or security reasons are provided in his/her C/E Handbook. If an unidentified or questionable situation arises that may affect the Participants, a Controller may suspend play and immediately notify the Senior Controller. Play is restarted when the situation is resolved.

In the event of an actual emergency, the Controller suspends the exercise in the immediate area for which he/she is responsible and contacts the Senior Controller.

**Note:** Not every site uses a code word. A code word to stop play may be assigned by the Exercise Director prior to the exercise. A Controller then uses it when communicating the stop play to the Senior Controller. If a code word is used, it is communicated during the Controller and Evaluator Exercise-specific Training.



Attending to an Emergency

The Exercise Director, in consultation with the Lead Controller from the Participating Organizations, determines if the problem is localized or if the entire exercise play should be suspended.

Exercise Control passes this information to all Controllers with a brief description of what has occurred. The Controllers are authorized to tell the Responders/Players why the exercise was suspended.

A Controller ensures that all activities are stopped. Responders/Players are not allowed to "catch up" on things during the suspension.

Remember, an actual emergency always takes precedence over an exercise. If necessary, the Exercise Director may terminate the exercise so that resources can be devoted to the actual emergency.



Exercise Control

**Exercise Restart**

Once the safety or security issue is addressed, the Senior Controller receives permission to restart the exercise from the Exercise Director.

Exercise Control then passes the restart conditions such as where the exercise is in the MSEL, time checks, and confirms communications with all Controllers.

Controllers re-assemble the Responders/Players, give them a chance to put Personal Protective Equipment (PPE) back on, and then restart the exercise upon direction from Exercise Control.



Restarting the Exercise

**Note:** Responders/Players may need to "redo" activities because they are critical for Responders'/Players' performances at other locations.

**Exercise Termination**

<b>Controller Task:</b>	Receives termination notice from the Senior Controller and announces exercise termination to all Participants in the assigned facility/area(s).
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Information concerning the procedures and the protocol for terminating an exercise is included in the EXPLAN and reviewed at the pre-exercise briefing.

Termination of the exercise at any time is under the authority of the Exercise Director.

Near the anticipated end of the exercise, Exercise Control checks with the Lead Controllers to verify that their Responders/Players had the opportunity to meet their exercise objectives.



Exercise Director with Senior Controller

Sometimes, facility/area(s) and offsite organizations have specific objectives (e.g., recovery and reentry) that are not applicable to other exercise facility/area(s). If that is the case, the Senior Controller determines the extent of play necessary to permit those facility/area(s) or agencies to meet their objectives.

Once this is determined, the Senior Controller gets permission from the Exercise Director to terminate the exercise.

In some cases, termination of an exercise may be staggered for different facility/area(s).

Upon notification from the Exercise Director or a Senior Controller, a Controller announces the termination of the exercise, documents the time, and ensures that Responders/Players' exercise activities cease.

A Controller then monitors safety as the Responders/Players pack their equipment and return to service.

An Evaluator notes the time and circumstances associated with the termination.



**Controller Monitoring  
the Decontamination  
Area**

**Roles and Responsibilities – During an Exercise Section Quiz**

**Instruction:** Select the one best answer. Answers are given following this quiz.

1 of 5: Direction and control involves which of the following?

- A. Starting the exercise
- B. Maintaining safety and security
- C. Presenting scenario simulations
- D. All of the above

2 of 5: The Shift Superintendent decides to shelter-in-place the entire site to err on the side of caution. Since this protective action exceeds the scope of the exercise, what should the Controller do?

- A. Direct the shelter-in-place to be simulated
- B. Allow the shelter-in-place to occur
- C. Note the action and say nothing
- D. None of the above

3 of 5: This position reports status of the response and any significant unplanned activities in his/her assigned facility/area(s) to the Lead Controller.

- A. Controller
- B. Evaluator
- C. Both A and B

4 of 5: A Controller uses these to suspend exercise activities.

- A. MSELs
- B. Pre-arranged protocols
- C. Safety Plans
- D. Control Messages

5 of 5: An Evaluator notes the time and circumstances associated with a termination.

- A. True
- B. False

**Section Quiz Answers (Note: Correct Answers are in bold)**

1 of 5: Direction and control involves which of the following?

- A. Starting the exercise
- B. Maintaining safety and security
- C. Presenting scenario simulations
- D. All of the above**

2 of 5: The Shift Superintendent decides to shelter-in-place the entire site to err on the side of caution. Since this protective action exceeds the scope of the exercise, what should the Controller do?

- A. Direct the shelter-in-place to be simulated**
- B. Allow the shelter-in-place to occur
- C. Note the action and say nothing
- D. None of the above

3 of 5: This position reports status of the response and any significant unplanned activities in his/her assigned facility/area(s) to the Lead Controller.

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- C. Both A and B

4 of 5: A Controller uses these to suspend exercise activities.

- A. MSELs
- B. Pre-arranged protocols**
- C. Safety Plans
- D. Control Messages

5 of 5: An Evaluator notes the time and circumstances associated with a termination.

- A. True**
- B. False

**Responders'/Players' Hotwash**

<b>Controller and Evaluator Task:</b>	Attends the Responders'/Players' Hotwash.
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Immediately following the termination of the exercise, each Controller and Evaluator attends the Responders'/Players' Hotwash. Responder/Player "hotwash" critiques are conducted immediately following the exercise to provide an opportunity for Responders/Players to discuss their own perspectives on the activities and events. These critiques are typically conducted "in place" (e.g., incident command post, field teams, EOC) by the facility/area lead Responder/Player or Controller.



Responders'/Players' Hotwash

Controllers and Evaluators should not provide the Responders/Players details of any observations during this critique. Controller input should be limited to feedback concerning the actual event scenario, as opposed to the outcome of exercise. The Evaluator documents issues identified by Responders/Players.

**Exercise Evaluation Process**

<b>Controller and Evaluator Task:</b>	Participates in the exercise evaluation process.
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The Lead Evaluator works with other Evaluators and Controllers during the evaluation process to "complete the picture" of Responders'/Players' and Controllers' actions and assesses whether objectives were met, and what improvements or corrective actions are needed.



Exercise Director and Lead Evaluator with Other Evaluators and Controllers

The Controllers and Evaluators participate in the exercise organization's Post-exercise Briefing and the exercise report-writing processes.

An Evaluator reviews his/her chronologies and notes immediately to ensure an accurate reconstruction of events and activities for discussion at the Post-exercise Briefing. Evaluation materials as well as critique notes become part of the exercise documentation.

**Post-exercise Briefing**

The Post-exercise Briefing is conducted without Responders/Players or Managers (other than exercise management) being present. During this meeting, the following is accomplished:

- Major issues are identified
- Interfaces with offsite agencies are identified and evaluated
- Actual timeline is constructed
- Evaluators are divided into teams to complete their EEGs



Post-exercise Briefing

**Example: Team**

All Evaluators who interacted at the event scene/Command Post complete their EEGs as a team.

- Evaluators make the initial determination of whether the objective was met. This may be adjusted by Report Writers when all the data from all facility/area(s) are analyzed
- Once the EEGs are completed and documentation collected, the Lead Evaluator consults with individual Evaluators when questions are generated within the EEGs or clarifications are needed.

**Roles and Responsibilities – After an Exercise Section Quiz**

**Instruction:** Select the one best answer. Answers are given following this quiz.

1 of 5: After an exercise, both Controllers and Evaluators attend the Responders'/Players' Hotwash.

- A. True
- B. False

2 of 5: At a Hotwash, a Controller and Evaluator comment on Responder/Player performance.

- A. True
- B. False

3 of 5: Both a Controller and an Evaluator participate in the exercise evaluation process.

- A. True
- B. False

4 of 5: This position works with other Evaluators and Controllers during the evaluation process to complete the picture of Responders/Player and Controller actions and assesses whether objectives were met, and what improvements or corrective actions are needed.

- A. Senior Controller
- B. Lead Evaluator
- C. Timeline Controller
- D. Control Cell

5 of 5: During the Post-exercise Briefing, Evaluators are divided into teams to complete their Exercise Evaluation Guides.

- A. True
- B. False

**Roles and Responsibilities – After an Exercise Section Quiz Answers (Note: Correct Answers are in bold)**

1 of 5: After an exercise, both Controllers and Evaluators attend the Responders'/Players' Hotwash.

- A. True**
- B. False

2 of 5: At a Hotwash, a Controller and Evaluator comment on Responder/Player performance.

- A. True
- B. False**

3 of 5: Both a Controller and an Evaluator participate in the exercise evaluation process.

- A. True**
- B. False

4 of 5: This position works with other Evaluators and Controllers during the evaluation process to complete the picture of Responders/Player and Controller actions and assesses whether objectives were met, and what improvements or corrective actions are needed.

- A. Senior Controller
- B. Lead Evaluator**
- C. Timeline Controller
- D. Control Cell

5 of 5: During the Post-exercise Briefing, Evaluators are divided into teams to complete their Exercise Evaluation Guides.

- A. True**
- B. False

### Report Preparation

The After Action Report (AAR) is prepared by the Evaluation Team to document evaluation of overall exercise performance. This report is the responsibility of the Lead Evaluator.

The AAR documents the observations and evaluations made by the Evaluators, Controllers, Responders/Players (self-critiques), and other Participating Organizations.

Once the AAR is drafted, the Evaluators review the report for accuracy. Observations are reviewed to ensure Responders/Players are measured against the evaluated organization's plans and procedures.



Evaluator Reviewing the AAR

**After Action Report Section Quiz**

**Instruction:** Select the one best answer. Answers are given following this quiz.

1 of 5: The After Action Report is prepared by this group.

- A. Control Organization
- B. Evaluation Team
- C. Responders/Players
- D. Emergency Managers

2 of 5: The After Action Report is the responsibility of this position.

- A. Exercise Director
- B. Senior Controller
- C. Lead Evaluator
- D. Timeline Coordinator

3 of 5: The After Action Report documents the observations and evaluations made by the Evaluators, Controllers, Responders/Players, and other Participating Organizations.

- A. True
- B. False

4 of 5: Once the After Action Report is drafted, the Evaluators review the report for accuracy.

- A. True
- B. False

5 of 5: Observations in the After Action Report are reviewed to ensure Responders/Players are measured against the evaluated organization's plans and procedures.

- A. True
- B. False

**After Action Report Quiz Answers (Note: Correct Answers are in bold)**

1 of 5: The After Action Report is prepared by this group.

- A. Control Organization
- B. Evaluation Team**
- C. Responders/Players
- D. Emergency Managers

2 of 5: The After Action Report is the responsibility of this position.

- A. Exercise Director
- B. Senior Controller
- C. Lead Evaluator**
- D. Timeline Coordinator

3 of 5: The After Action Report documents the observations and evaluations made by the Evaluators, Controllers, Responders/Players, and other Participating Organizations.

- A. True**
- B. False

4 of 5: Once the After Action Report is drafted, the Evaluators review the report for accuracy.

- A. True**
- B. False

5 of 5: Observations in the After Action Report are reviewed to ensure Responders/Players are measured against the evaluated organization's plans and procedures.

- A. True**
- B. False

## **Practice – Activity 1**

These practical applications allow you as a Controller/Evaluator to observe, identify, and document a good or poor control technique during an exercise.

### **Instructions:**

1. Read the situation and then answer the question.
2. Feedback is provided at the end of the Practice section.

### **Situation:**

A Firefighter asks a Controller, "Are there any hazardous materials on the truck? The Controller answers, "Yes. There are five 100-pound cylinders of Chlorine; the shipping papers are in the truck. The Responder/Player says, "Alright, thank you."

### **What did you observe?**

- A. The Firefighter properly addressed the Controller to find out about the hazardous material on the truck.
- B. The Controller appropriately gave the Firefighter the information he needed once the Firefighter asks the Controller if there were hazardous materials on the truck.
- C. The Controller provided unearned information. The Firefighter should have found the shipping papers as part of his response.

## **Practice - Activity 2**

### **Situation:**

A Responder/Player says to the Controller, "I am notifying the DOE Headquarters Watch Office." An Evaluator steps up and says, "I'm Bill Russell from DOE and I need to check this Notification Form for accuracy."

### **What did you observe?**

- A. The Evaluator wanted to check the notification form for accuracy because he is evaluating performance as well as any tools used by the Responder/Player.
- B. The Controller should stop the Evaluator because the Evaluator is not to speak to the Responder/Player and should not be checking the form at this time.
- C. The Responder/Player showed good drillsmanship by informing the Controller that he was notifying DOE Headquarters Watch Office.

### **Practice - Activity 3**

**Situation:**

Responder Player asks Controller, "How do you think we did?" Controller responds, "I saw very few issues, great job guys."

**What did you observe?**

- A. The Controller attended the Responder/Player critique and gave complimentary feedback
- B. The Controller's comments were short and to the point
- C. The Controller should not have commented at the Responder/Player critique.

Feedback to Practice Scenarios (Best Answers are in bold.)

Practice 1

- A. The Firefighter properly addressed the Controller to find out about the hazardous material on the truck. **Feedback:** Incorrect, the Firefighter should have earned the information first by looking for the shipping papers.
- B. The Controller appropriately gave the Firefighter the information he needed once the Firefighter asks the Controller if there were hazardous materials on the truck. **Feedback:** Incorrect, the Firefighter should have earned the information by looking for the shipping papers.
- C. **The Controller provided unearned information. The Firefighter should have found the shipping papers as part of his response.** **Feedback:** Correct, a Controller should never provide unearned information

Practice 2

- A. The Evaluator wanted to check the notification form for accuracy because he is evaluating performance as well as any tools used by the Responder/Player. **Feedback:** True, but the Evaluator showed poor technique because he interfered with the Responder's/Player's response effort.
- B. **The Controller should stop the Evaluator because the Evaluator is not to speak to the Responder/Player and should not be checking the form at this time.** **Feedback:** The Controller should stop the Evaluator because the Evaluator is not to speak to the Responder/Player and should not be checking the form at this time.
- C. The Responder/Player showed good drillsmanship by informing the Controller that he was notifying DOE Headquarters Watch Office. **Feedback:** True, but the Evaluator should not be interfering with the Responder/Player response. Only a Controller speaks to a Responder/Player.

Practice 3

- A. The Controller attended the Responder/Player critique and gave complimentary feedback. **Feedback:** Poor technique. The Controller should not comment at a Responder/Player critique.
- B. The Controller's comments were short and to the point. **Feedback:** Poor technique. The Controller should not comment at the Responder/Player critique.
- C. **The Controller should not have commented at the Responder/Player critique.** **Feedback:** Correct, the Controller showed a poor technique by commenting. He will not have the big picture until he attends the Post-exercise Briefing.

### Key Points— Exercise Control

- There are two general requirements for exercise control:
  - "Each exercise must be conducted, controlled, evaluated, and critiqued effectively and reliably." (DOE O 151.1C, *Comprehensive Emergency Management System*, Attachment 2, *Contractor Requirements Document*, Paragraph 6, *Exercises*)
  - "The flow of the scenario timeline and events must be effectively controlled and the response of the Participants must be realistic and professional." (DOE G 151.1-3, *Programmatic Elements Emergency Management Guide*, Chapter 3, *Exercises*, Section 3.2, *General Approach*)

More specific guidance is contained in DOE G 151.1-3, Chapter 3, *Exercises*, and Chapter 4, *Readiness Assurance*.

- The Control Organization is responsible for controlling the exercise and is usually depicted on an organizational chart showing the categories of Controllers and lines of communication. The size of the Control Organization varies in number depending on the exercise scope
- The Exercise Director has overall responsibility for exercise planning, development, conduct, and evaluation. He/she also provides the opportunity to meet exercise objectives and starts, suspends, and terminates the exercise
- The Senior Controller oversees all exercise functions, including setup and takedown of an exercise, such as prop placement, signs, removal of debris, and positioning of Controllers and Evaluators. He/she is responsible for communications with Controllers and Evaluators. The Senior Controller also issues exercise materials via the Lead Controller or assigned Controller(s) to Responders/Players as required. The Senior Controller monitors exercise progress, and makes decisions regarding any deviations or changes. He/she coordinates any required modifications and debriefs Controllers and Evaluators in the Post-exercise Briefing
- The Timeline Coordinator is responsible for ensuring the exercise timeline remains on schedule, and is responsible for specific tasks or actions from the Control Cell. He/she is typically co-located with the Senior Controller, and receives timeline status reports from Lead Controllers and provides this information to the Senior Controller and the Exercise Director
- A Lead Controller coordinates the activities of several Controllers. He/she introduces, maintains, and coordinates exercise events in accordance with the Master Scenario Events List. He/she also ensures delivery of injects promptly as directed by the Senior Controller, observes and reports exercise artificialities that interfere with realism, and notifies the Senior Controller of events or need for changes
- A Control Cell is a simulation center located away from the Responders/Players. It is staffed by experienced Controllers (and/or Actors) who simulate or role-play Non-participating Organizations who would normally be involved in responding to an emergency
- Actors/Players are Controllers who simulate members of Non-participating Organizations and role-play key individuals, such as injured personnel
- A Controller Team delivers input to Responders/Players as described in the Master Scenario Events List and/or as directed by the Senior Controller and/or Lead Controller. The Controller Team also notifies the Lead Controller of events or need for changes

### Key Points— Exercise Evaluation

- There are general requirements for exercise evaluation according to DOE Order 151.1C:
  - "Each exercise must have specific objectives and must be fully documented (e.g., by scenario packages that include objectives, scope, timelines, injects, controller instructions, and evaluation criteria). Exercises must be evaluated. A critique process, which includes gathering and documenting observations of the Participants, must be established. Corrective action items identified as a result of the critique process must be incorporated into the emergency management program." (DOE Order 151.1C, Chapter IV, *Operational Emergency Hazardous Material Program*, Paragraph 4.b, *Exercises*)
  - "Each exercise must be conducted, controlled, evaluated, and critiqued effectively and reliably." (DOE O 151.1C, Attachment 2, *CRD*, Paragraph 6, *Exercises*)

More specific guidance is contained in DOE G 151.1-3, Chapters 3 and 4.

- The Evaluation Organization may vary in number depending on the exercise scope
- The value of exercise evaluation is the ability to provide constructive feedback (positive or negative) to improve and enhance the effectiveness of an organization's response to emergencies. Accurate and detailed documentation is critical in facilitating a full record of all the events in an exercise and an understanding of Responders/Players and Controllers actions
- The Lead Evaluator is a senior-level person who understands command and decision-making processes and interagency coordination, as well as specific response functions. He/she coordinates all evaluation functions including preparation of the After Action Report. He/she also observes, documents, and evaluates Controller and Responder/Player performances and adequacy of facilities and equipment. The Lead Evaluator also ensures collection of all evaluation data, Exercise Evaluation Guides, and materials after the exercise
- Evaluators observe, document, and evaluate Controller and Responder/Player performance and adequacy of facilities and equipment in assigned facility/area(s). They record key events and times as they occur. They also collect data information as it is distributed during the exercise

### Key Points— Roles and Responsibilities – Introduction

- Assignment of staff to Controller positions is the responsibility of the Senior Controller in coordination with the Exercise Director or Lead Exercise Planner
- Assignment of staff to Evaluator positions is the responsibility of the Lead Evaluator in coordination with the Exercise Director or Lead Exercise Planner
- Potential Controllers and Evaluators are identified from multiple sources, including the following:
  - Members of the Exercise Design Team
  - Experienced members of Participating Organizations and the Emergency Response Organization who are not involved in the exercise play
  - Professionals in similar agencies in adjacent or nearby jurisdictions
  - DOE/NNSA and contractor employees from other DOE/NNSA facilities and/or sites

- A Controller and Evaluator maintain confidentiality of exercise information by considering what he/she says and to whom, by protecting sensitive materials from inadvertent disclosure, and takes care in positioning himself/herself while observing an exercise activity to ensure his/her actions do not divulge specific information to Responders/Players
- The roles of each Controller are as follows:
  - Maintains safety and security precautions and limitations
  - Provides overall direction and control of an exercise
  - Ensures the continuity of the scenario
- The roles of each Evaluator are threefold:
  - Observes and documents performance of Controllers and Responders/Players as they seek to accomplish their objectives
  - Evaluates the performance against the exercise objectives, augmented by evaluation criteria contained in the EEGs
  - Provides input to develop the After Action Report

### **Key Points— Roles and Responsibilities – Prior to an Exercise**

- Each Controller and Evaluator reviews appropriate emergency plans, procedures, and checklists/tools used by Responders/Players to demonstrate their objectives
- Each Controller and Evaluator reviews appropriate emergency documentation for his/her assigned facility/area(s)
- The Controller must understand the Emergency Plans and Implementation Procedures being used by the Responders/Players he/she is controlling in order to understand the dynamics of an action or activity as it unfolds in the exercise play
- The Evaluator must understand the Emergency Plans and Implementation Procedures being used by the Responders/Players he/she is evaluating. The evaluation includes an assessment of Responders/Players' implementation of the plans and procedures, as well as an assessment of the adequacy of these plans and procedures
- Failure to review current plans and procedures results in Evaluator errors and skews evaluation results
- The Lead Evaluator ensure that all Evaluators receive plans and procedures far enough in advance to allow for a thorough review and that those Evaluators understand the importance of the plan and procedure review
- Each Controller and Evaluator reviews appropriate Controller and Evaluator materials. They receive their exercise materials at the Controller and Evaluator Exercise-specific Training

- The Controller and Evaluator (C/E) Handbook supplements the Exercise Plan (EXPLAN) by presenting more detailed information about the exercise scenario and describes exercise Controller's and Evaluator's roles and responsibilities
- A Controller and an Evaluator reorganizes his/her materials so information critical to his/her specific assignment is readily accessible when brought to the exercise
- The following tools are used by a Controller and/or an Evaluator:
  - Instructions list general information that each Controller or Evaluator needs for pre-exercise setup, exercise conduct and exercise evaluation
  - Protocols are ground rules or rules of conduct to remind exercise Participants of drillsmanship and safety issues
  - Organizations and assignments are illustrated in simple or complex charts depending on the scope and need of the exercise
  - Scenario materials may include the exercise objectives, scenario narrative, Master Scenario Events List, messages and injects, and general and facility-specific information and/or exercise data that varies depending on the type and scope of the exercise
  - Safety and Security Plans contain physical security, safety precautions and concerns, and information security to help a Controller and Evaluator to ensure all exercise Participants comply accordingly
  - Observation Sheets are forms used by each Controller and Evaluator to document his/her notes from the onset of pre-exercise activities through the conclusion of exercise activities
  - Several communication directories are used in an exercise:
    - A Controller/Evaluator Directory is provided to Controllers and Evaluators for communication within the Control and Evaluation Organizations
    - An Exercise Directory or Control Cell Directory is provided to Control Cell Controllers so they can contact Responders/Players as appropriate
    - A Responder/Player Directory is provided to Responders/Players so they can contact simulated organizations
  - Exercise Evaluation Guides (EEGs) are the primary tools used by an Evaluator to analyze the response. The EEGs list the exercise objectives to be demonstrated, and the criteria for meeting each objective. Based on the information observed and documented on Observation Sheets, the Evaluator fills out the EEGs after the exercise. Finally, the EEGs include the definitions of the rating system used to document performance
- Prior to an exercise, each Controller and Evaluator has the following tasks:
  - Attends required Controller and Evaluator Exercise-specific Training
  - Attends Responder/Player and Observer Briefings
  - Reports to the staging area

- Each Controller also:
  - Sets-up approved simulations
  - Conducts pre-start safety checks

### **Key Points— Roles and Responsibilities – During an Exercise**

- Each Controller provides overall directions and control of the exercise by:
  - Starting the exercise
  - Maintaining safety and security
  - Presenting scenario simulations
  - Using scenario messages
  - Presenting scenario information
  - Allowing free play
  - Maintaining exercise pace and focus
  - Continuity of scenario and exercise timeline
- Each Controller and Evaluator documents what he/she observes
- Each Controller documents the time of all significant activities associated with his/her part of the exercise, to include the following:
  - Message delivery and the effects of message(s) on play and any unexpected activities, and reports any discrepancy/deviation in scenario progress immediately to the Senior Controller
  - Contingency message delivery
  - Responders'/Players' key decisions and mitigation actions
  - Free play
  - Conversations with Responders/Players, other Controller, Evaluators, Observers/VIPs and Non-exercise Participants
- An Evaluator observes and documents Responders/Players and Controller performance activities during the exercise. An Evaluator uses the following techniques for effective observation and documentation:
  - Observes Responders/Players' actions, including free play, and hears conversations without interfering with those activities
  - Takes detailed notes concerning activities observed, including the time of occurrence
  - Stays in close proximity to Responders/Players decision makers

- Focuses on critical activities
- A Controller and an Evaluator watches for pitfalls such as the inability of Responders/Players to implement management directives, inability of technical support to monitor and assess actions being taken, inability to communicate, inability of Incident Command System to dispatch agencies, deviations from plans and procedures affecting response, and free play decisions that result in unanticipated actions
- Each Controller also:
  - Reports status of the response and any significant unplanned activities in his/her assigned facility/area(s) to the Lead Controller
  - Suspends exercise activities in the assigned facility/area(s) and reports suspension to the Senior Controller
  - Re-assembles the Responders/Players and restarts the exercise upon direction from Exercise Control
  - Receives termination notice from the Senior Controller and announces exercise termination to all Participants in the assigned facility/area(s). A Controller then monitors safety as the Responders/Players pack their equipment and return to service. An Evaluator notes the time and circumstances associated with the termination

### Key Points— Roles and Responsibilities – After an Exercise

- Each Controller and Evaluator:
  - Attends the Responders'/Players' Hotwash
  - Participates in the exercise evaluation process
  - Participates in the exercise organization's Post-exercise Briefing and the exercise report-writing processes
- The Lead Evaluator works with other Evaluators and Controllers during the evaluation process to complete the picture of Responders'/Players' and Controllers' actions and assesses whether objectives were met, and what improvements or corrective actions are needed
- The Post-exercise Briefing is conducted without Responders/Players or Managers (other than exercise management) being present. During this meeting, the following is accomplished:
  - Major issues are identified
  - Interfaces with offsite agencies are identified and evaluated
  - An actual timeline is constructed
  - Evaluators are divided into teams to complete their Exercise Evaluation Guides
  - Evaluators make the initial determination of whether the objective was met
- Once the EEGs are completed and documentation collected, the Lead Evaluator consults with individual Evaluators when questions are generated within the EEGs or clarifications are needed

**Key Points— After Action Report**

- The After Action Report (AAR) is prepared by the Evaluation Team to document evaluation of overall exercise performance. This report is the responsibility of the Lead Evaluator
- The AAR documents the observations and evaluations made by the Evaluators, Controllers, Responders/Players (self-critiques), and other Participating Organizations
- Once the AAR is drafted, the Evaluators review the report for accuracy. Observations are reviewed to ensure Responders/Players are measured against the evaluated organization's plans and procedures

Go to the *Basic Exercise Controller and Evaluator Tutorial* to take the Final Quiz. The Final Quiz for this tutorial has twenty-five randomly selected multiple choice questions from a test bank. Select the one best answer. A cumulative percentage score of correct responses is provided at the end of the Final Quiz. Seventy percent is considered a passing grade. Upon successful completion, print your certificate.

Now that you have completed the *Basic Exercise Controller and Evaluator Tutorial*, contact your site Exercise Program Coordinator to receive the Site-specific Controller and Evaluator Training.

The following references were used in the development of the *Basic Exercise Controller and Evaluator Tutorial*:

- DOE Guide 151.1A, *Emergency Management Fundamentals and the Operational Emergency Base Program Emergency Management Guide*, 7-11-07
- DOE G 151.1-3, *Programmatic Elements Emergency Management Guide*, 7-11-07
- DOE G 151.1-3, *Programmatic Elements Emergency Management Guide*, Chapter 4, Appendix D. *Evaluation Criteria*, 7-11-07
- DOE Order 151.1C, *Comprehensive Emergency Management System*, 11-2-05
- DOE O 414.1C. *Quality Assurance*, 6-17-05
- Homeland Security Exercise and Evaluation Program (HSEEP), V2: *Exercise Planning and Conduct*, February 2007

Word	Definition
Actions	The process of doing.
Activation	To set up or mobilize response units/teams.
Actors/Players	Controllers who simulate members of Non-participating Organizations and role-play key individuals, such as injured personnel. They may have face-to-face contact with Responders/Players, functioning as media reporters, next-of-kin, or injured personnel. They may be members of a Control Cell with telephone communication being the only interaction with Responders/Players.
After Action Report (AAR)	Documents the performance of exercise related tasks and makes recommendations for improvements.
Assessment	The process of acquiring, collecting, processing, examining, analyzing, evaluating, monitoring, and interpreting the data, information, evidence, objects, measurements, images, sound, etc., whether tangible or intangible, to provide a basis for decision making.
Briefings	Training accomplished through formal meetings, postings, e-mails, or Web sites prior to an exercise.
Capabilities	The quality or state of being capable; also, ability or potential for an indicated use or action.
Checklist	Written (or computerized) enumeration of actions to be taken by an individual or organization meant to aid member rather than provide detailed instruction.
Classifiers	Trained persons who are authorized to assign a sensitivity rating to documents or programs, either individually or as a group. If the relevant site/facility/activity is generating classified or Unclassified Controlled Nuclear Information (UCNI), or is conducting operations that are classified or UCNI, then all emergency preparedness documents, such as plans procedures, scenarios, and assessments, shall be reviewed for classified or UCNI by an Authorized Derivative Classified or UCNI Reviewing Official.
Command Post	A designated area at or near the scene of an emergency that is the collection center for the On-scene Commander and that is used for response, assessment, and communications to the Emergency Operations Center.
Confidentiality	Containing information whose unauthorized disclosure could be prejudicial.
Contextual Messages	Messages from a Controller to a Responder/Player to help build the exercise operating environment.
Contingency Messages	Messages from a Controller to a Responder/Player if he/she is not performing the actions needed to sustain exercise play.
Control Cell	A simulation center located away from the Responders/Players (and/or Actors) who role-play Non-participating Organizations that would normally be involved in responding to an emergency.
Control Messages	Pre-exercise information to a Controller in preparing simulations; direction to a Controller such as starting and stopping information; and management instructions for terminating the exercise.

Word	Definition
Controller	A training individual responsible for controlling aspects of a drill or an exercise by monitoring the exercise timeline and safety of all exercise Participants, providing direction and control and ensuring continuity of the scenario by distributing information (messages, indications, or data) to Responders/Players. Responsible for ensuring Responders/Players adhere to established safety precautions and limitations.
Controller/Evaluator	A person assigned both the roles of a Controller and an Evaluator.
Controller/Evaluator Directory	A listing provided to Controllers and Evaluators which includes the telephone and radio channels and frequencies used for communication within the Control and Evaluation Organizations; is not shared with the Responders/Players.
Controller/Evaluator Handbook	Supplemental detailed information about the exercise scenario that describes exercise Controller's and Evaluator's roles and responsibilities.
Controller Team	A group that delivers input (e.g., injects, instruments readings, observations) to Responders/Players as described in the MSEL and/or as directed by the Senior Controller and/or Lead Controller; notifies the Lead Controller of events or need for changes.
Corrective Actions	Those measures taken to terminate or mitigate the consequences of an emergency at or near the source of the emergency.
Critical Task	Prevention, protection, response, and recovery tasks that require coordination among an appropriate combination of Federal, State, tribal, local, private-sector, and nongovernmental entities during a major incident to minimize the impact on lives, property, and the economy.
Drill	An event designed to develop, test and maintain skills in a particular operation. Frequently limited in scope, and often a component of an exercise. May be used as training events, in which Controllers provide on-the-spot training as Responders/Players take action.
Earned Information Injects	Messages that contain data to be provided to a Responder/Player when the function being performed would yield specific information.
Emergency	Any unwanted operational, civil, natural phenomenon or security occurrence which could endanger or adversely affect people, property, or the environment.
Emergency Classification	Operational Emergencies must be classified as either an Alert, Site Area Emergency, or General Emergency, in order of increasing severity, when events occur that represent a specific threat to workers and the public due to the release or potential release of significant quantities of hazardous materials from DOE/NNSA facilities/activities/operations.
Emergency Management	The development, coordination, and direction of planning, preparedness, and readiness assurance activities.

Word	Definition
Emergency Medical Service (EMS)	Services, including personnel, facilities, and equipment required to ensure proper medical care for the sick and injured from the time of the injury to the time of final disposition (which includes medical disposition within a hospital, temporary medical facility, or special care facility; release from the site; or being declared dead). Further, EMS specifically includes those services immediately required to ensure proper medical care and specialized treatment for patients in a hospital and coordination or related hospital services.
Emergency Operations Center (EOC)	A central facility from which management and support personnel carry out coordinated emergency response activities. May be a dedicated facility or office, conference room, or other pre-designated location having appropriate communications and informational materials to carry out the assigned emergency response mission and located, where possible, in a secure and protected location.
Emergency Plan (EP)	A brief, clear, and concise description of the overall emergency organization, designation of responsibilities, and descriptions of the procedures, including notifications, involved in coping with any or all aspects of a potential credible emergency.
Emergency Plan Implementing Procedures (EPIP)	Specified steps necessary to implement emergency plans.
Emergency Response	Action(s) taken to cope with and minimize the effects of an unforeseen combination of circumstances or the resulting state that calls for immediate action.
Emergency Response Organization (ERO)	The designated group(s) of personnel responsible for coping with and minimizing or mitigating the effects of an emergency.
Evacuation	The orderly withdrawal of individuals from a hazardous or threatened area until such time as the area is again deemed safe for use.
Evaluation	One of the five phases of the exercise process; it documents strengths and opportunities for improvement in an organization's preparedness and is the first step in the improvement process. Evaluations are conducted through Responder/Player observation and the use of Exercise Evaluation Guides (EEGs), which outline exercise performance measures expected from exercise Participants.
Evaluation Organization	A group of trained individuals who observe, document, and evaluate responder/Player performance and the adequacy of facilities and equipment against established emergency plans and exercise evaluation criteria.
Evaluation Plan (EVALPLAN)	A document that provides specific guidance to exercise Evaluators, including an exercise synopsis. Typically used for operations-based exercises of a large scope and scale. It is published and distributed before the start of an exercise. The EVALPLAN assists exercise Evaluators to understand their roles and responsibilities in data collection and evaluation to conduct an effective analysis of the exercise. For most exercises, however, the EVALPLAN can be combined with Control Staff Instructions (COSIN) to produce a Controller and Evaluator (C/E) Handbook.

Word	Definition
Evaluation Team	A group of Evaluators trained to observe and record Participation actions. These individuals should be familiar with the exercising organization's plans, policies, procedures, and agreements.
Evaluator	A trained individual assigned to observe, document, and then measure and assess exercise Participants' performance against establish emergency plans, procedures, and exercise evaluation criteria. An Evaluator uses Exercise Evaluation Guides (EEGs) to measure and assess performance, capture unresolved issues, and analyze exercise results.
Event	Any real-time occurrence or significant deviation from planned or expected behavior that could endanger or adversely affect people, property, or the environment.
Exercise	A scheduled and planned large-scale activity that tests the integrated capability and most aspects of the emergency management program associated with a particular DOE facility.
Exercise Control	DOE Orders and Guidelines mandate that exercises must be conducted, controlled, evaluated, and critiqued effectively and reliably. The flow of the scenario timeline and events must be effectively controlled and the response of Participants must be realistic and professional.
Exercise Control Objectives	Used by exercise officials to ensure the demonstration of the organizational goals during an emergency drill or exercise.
Exercise Design Team	Members are fully versed in the scenario the Responders/Players, and expected action.
Exercise Director	Has overall responsibility for exercise planning, development, conduct, and evaluation. Provides the opportunity to meet exercise objectives; starts, suspends, and terminates the exercise.
Exercise Directory or Control Cell Directory	A document provided to Control Cell Controllers which list telephone numbers of Responders/Players who may need to be contacted.
Exercise Evaluation	A mechanism for evaluating the ability of an organization to respond to a simulated emergency. It includes selected document review, Responder/Player Briefing, evaluation of Controller training, observations of exercise performance, exercise critique sessions, and identification of potential findings.
Exercise Evaluation Criteria	Standards used by Evaluators to determine when an objective is adequately demonstrated. Are developed for each exercise objective.
Exercise Evaluation Guides (EEGs)	Documents developed to assist in exercise evaluation, which incorporate the critical tasks that should be completed in an exercise.
Exercise Messages or Injects	Include instructions to Controllers to begin simulation; insert information; or provide earned information; acting instructions, and contingency messages. Contain accurate, unambiguous, and non-promoting information and technical data for the Responders/Players and provide proper direction for the exercise.
Exercise Objectives	Specific, measureable performance goals selected by the Exercise Planning Team that are used for formal practice sessions. Demonstrate or test specific response procedures and/or capabilities.

Word	Definition
Exercise Plan (EXPLAN)	The cumulative documentation prepared for Controllers and Evaluators that provides the information necessary to prepare, conduct, and evaluate a drill or an exercise.
Exercise Position	Either a Controller or an Evaluator position recorded on the Observation Sheet.
Exercise Setup	Includes setting up simulations, preparing scenes and visual areas (e.g., smoke generators, simulated spills, actor moulage, etc), performing Controller communications checks, conducting Responder/Players' initial conditions briefings, synchronizing clocks, initializing computer simulation data, and other scenario-specific activities. Must be carefully planned to ensure that all logistics necessary to conduct the exercise are checked before the exercise begins.
Extent of Play	The exact level to which an event objective should be demonstrated during an event, as determined by the event's designers.
Facility	Any buildings, utilities, structures, and other land improvements associated with an operation or service and dedicated to a common function.
Facility/Area	Any equipment, structure, system, process, or activity that fulfills a specific purpose.
Free Play	The standard practice during drills and exercises of allowing the Responders/Players to go as far as possible in their response actions to the simulated emergency events without jeopardizing personnel, plant, or facility safety; exceeding established limitations on utilization of resources; or compromising the established objectives.
General Emergency	<p>An Operational Emergency classification. A GE must be declared when events are predicted, in progress, or have occurred that result in one or more of the follow situations:</p> <ol style="list-style-type: none"> <li>1. Actual or imminent catastrophic reduction of facility safety or security systems with potential for the release of large quantities of hazardous materials to the environment. The radiation dose from any release of radioactive material or a concentration in air from any release of other hazardous material is expected to exceed the applicable Protective Action Criterion at or beyond the site boundary.</li> <li>2. Actual or likely catastrophic failures in safety or security systems threatening the integrity of a nuclear weapon, component, or test device that may adversely impact the health and safety of workers or the public.</li> </ol>
Hotwash (aka Critique)	A facilitated discussion held immediately after an exercise among exercise Responders/Players from each functional area. It captures feedback about any issues, concerns, or proposed improvements Responders/ Players may have about the exercise. The Hotwash is an opportunity for Responders/Players to voice their opinions on the exercise and their own performance. This facilitated meeting allows Responders/Players to participate in a self-assessment of exercise play and provides a general assessment of how the organization(s) performed. At this time, Evaluators can seek clarification on certain actions and what prompted Responders/Players to take them. Evaluators should take notes during the Hotwash and include these observations in their analysis.

Word	Definition
Incident Command System (ICS)	The emergency Response Organization at the event scene designed to deal with command, control and coordination n issues.
Incident Commander	The individual responsible for the management of all operations at a particular hazardous materials emergency.
Inject	Master Scenario Events Lists events that prompt Responders/Players to implement the plans, policies, and procedures that planners want the exercise to validate. Injects are MSEL entries that Controllers must simulate, including directives, instructions, and decisions. Exercise Controllers provide injects to exercise Responders/Players to drive exercise play toward achievement of objectives. Injects can be written, oral, televised, and/or transmitted via any means (e.g., fax, phone, e-mail, voice, radio). Injects can be contextual or contingency.
Joint Information Center (JIC)	A centralized facility where organizations responding to an emergency coordinate the release of accurate and timely information to the public and the media and provide a central source for all instructions. Operated cooperatively by all responding levels of Federal, State, and local governments and organizations, and the involved facility.
Jurisdictions	A range or sphere of authority. Public agencies have jurisdiction at an incident related to their legal responsibilities and authority. Jurisdictional authority at an incident can be political or geographical (e.g., city, county, tribal, State, or Federal boundary lines) or functional (e.g., law enforcement, public health).
Lead Controller	A person who coordinates the activities of several Controllers for larger or more complicated exercises that involve a number of response locations and emergency functions.
Lead Evaluator	A person who coordinates the activities of several Evaluators for larger or more complicated exercises that involve a number of response locations and emergency functions.
Lead Exercise Planner (aka the Exercise Director)	A person who has complete management responsibility, assigning tasks to team members and ensuring the successful execution of the exercise.
Limitations	Management policies and guidelines of concern to the Exercise Developers and Scenario Designers; may include issues such as conducting exercises on weekends, overtime restrictions or authorizations, and financial constraints.
Logistics	The handling of the details of an operation.
Logs	A record of performance, events, or minute-to-minute activities.
Master Scenario Events List (MSEL)	A chronological timeline of expected actions and scripted events to be injected into exercise play by Controllers to generate or prompt Responder/Player activity. It ensures necessary events happen so that all exercise objectives are met. It enumerates all exercise messages and key events in a table that specifies the time the message is expected to be delivered, who delivers it to whom, a message number, and a short description of the message. It also may contain the Responder/Player-expected actions and associated exercise objectives to assist the Controllers and Evaluators in performing their functions.

Word	Definition
Moulage	Makeup to give the impression of realism, i.e., makeup on an Actor to simulate injuries to be treated.
Non-participants	Individuals outside the scope of play who continue to perform their normal, routine duties as though the exercise is not in progress. Such routine duties include activities necessary for continued safe and secure operation of the facility. Efforts are made to minimize the impact of the exercise on Non-participants to avoid interface between Responders/Players and those individuals.
Observation Sheet	A form for Evaluators and Controllers to record observation details, including name, position, exercise, and time of observation.
Observations/Observable	A statement of fact regarding a visible condition.
Observer	An individual outside the scope of play—in attendance for various reasons—who is briefed, with Controllers and Evaluators or separately, prior to the exercise to ensure compliance with safety and security precautions and other rules of conduct.
Observer Briefing	A pre-exercise overview given to educate Observers about program background, scenario, schedule of events, Observer protocols, and other miscellaneous information.
Operational Emergency (OE)	Unplanned, significant events or conditions that require time-urgent response from outside the immediate/affected site/facility or area of the incident. Incidents that can be controlled by employees or maintenance personnel in the immediate/affected facility or area are not Operational Emergencies. Incidents that do not pose a significant hazard to safety, health, and/or the environment and that do not require a time-urgent response are not Operational Emergencies.
Operations-based Exercise	Focus on action-oriented activities such as deployment of resources and personnel.
Participant	Every person (i.e., Responders/Players, Controllers, Evaluators, and staff members)
Participating Organizations	Every organization which has a role (Responder/Player, an objective to be met) in implementing the exercise
Performance	A criterion, which must be met to demonstrate an exercise objective.
Performance Objective	A statement of desired outcomes for an organization o activity.
Personal Protective Equipment (PPE)	Equipment such as respirators, face shields and safety glasses, used to protect workers from excessive exposure to radioactive or hazardous materials.
Pitfalls	Inability of Responders./Players to implement management directives; inability of technical support to monitor and assess action being taken; inability to communicate; inability of ICS to dispatch agencies; deviations from plans and procedure affecting response; confusing simulation; free play that impact the opportunity of another organization to meet its objectives or that violates safety and security protocols.
Post-exercise Briefing	Debrief of Controllers' and Evaluators' chronologies and notes following exercise termination to ensure an accurate reconstruction.

Word	Definition
Props	Nonfunctional replications of objects. The presence or discovery of props requires certain actions by exercise Responders/Players. Examples of props include simulated bombs, bomb last debris (shrapnel), mannequins or body parts, and foam bricks and beams. Simulations that mimic the effects of chemical or radiological hazards or cause a positive reading of an actual detection device are also considered props.
Protocols	Ground rules or rules of conduct to remind exercise Participants of drillsmanship and safety issues.
Record	A technically accurate and detailed documentation of actions by Responders/Players.
Responder/Player	A person who has an assigned role during an emergency and who has been predetermined to participate in a tabletop, drill or exercise. Responders/Players have an active role in preventing, responding to, or recovering from the risks and hazards presented in the exercise scenario. Responders/Players initiate actions that will respond to and/or mitigate the simulated emergency. In an operations-based exercise, this is done by performing their regular roles and responsibilities.
Responder/Player Briefing	A Responder/Player Briefing is held immediately before an operations-based exercise and addresses individual role and responsibilities, exercise parameters, safety, badges, and any other logistical items. For a drill or full-cal exercise, Responder/Player Briefings typically occur in an assembly area.
Responder/Player Directory	Listing provided to Responders/Players with the phone, fax and/or radio net of simulated organizations.
Response Organization	An organization which takes immediate actions to save lives, protect property and the environment, and meet basic human needs, including the execution of emergency plans and action to support short-term recovery.
Scenario	A technically accurate mechanism developed to provide Responders/ Players with the opportunity to meet objectives, that explicitly supports an evaluation/validation of each objective.
Scenario Materials	Includes the narrative scenario; overall sequence and timing of events; the detailed messages; technical data tables; illustrations, maps, and/or additional information necessary to realistically depict events.
Scenario Narrative	A storybook summary of the background, initial conditions, initiating events, and expected responder actions. It contains descriptions of the simulated emergency situation, including the overall sequence of events, details, supporting data, and time of activities.
Scope	Contains the type of exercise, the location of the event scene (e.g., specific facility), facility/site or activity background information, and the date and expected duration.
Senior Controller	A person who oversees all exercise functions, including setup and takedown of exercise, and positioning of Controllers and Evaluators; is responsible for communications with Controllers and Evaluators; issues exercise materials to Responders/Players; monitors exercise progress and makes decisions regarding any changes; coordinates any modifications; and conducts Post-exercise Briefing.

Word	Definition
Sensitive Materials	Documents that must be protected from inadvertent disclosure to prevent skewing assessment of emergency response capabilities, includes scenario, timeline, notes, inject message, other material.
Shadow Forces	Personnel (e.g., Fire, Emergency Medical Services, and Security Forces) who handle an actual event while an exercise is in progress.
Shelter-in-Place	A protective action that calls for personnel to move into or remain indoors; close doors and windows; turn off air conditioners, heaters, and air-handling units that draw in outside air; refrain from eating, drinking, smoking, or chewing gum; and remain indoors until notified that it is safe to leave. Personnel in vehicles should roll up windows and close vents that draw in outside air (including heater and air-conditioning vents if applicable), and proceed to a safe area.
Simulation	As defined for drills and exercises, applies to the overall emergency or event being staged.
Skews	Distorts the ability to assess the capability of the emergency response actions.
Staging Area	Temporary location for available resources. A Staging Area can be any location in which personnel, supplies, and equipment can be temporarily housed or parked while awaiting operational assignment.
Subject Matter Expert (SME)	An individual qualified and experienced in performing a particular task; may also be an individual who—by education, training, and/or experience—is a recognized expert on a particular subject, topic, or system.
Termination and Recovery	An Operational Emergency can be terminated only after a predetermined set of criteria are met and termination is coordinated with offsite agencies. Must include communication and coordination with State, Tribal, and Local governments and other Federal agencies; planning, management and organization of the associated recovery activities; and ensuring the health and safety of the workers and the public.
Timeline Coordinator	An individual, for complex exercises, who is responsible for ensuring the exercise timeline remains on scheduled—a key factor for proper attainment of exercise objectives.