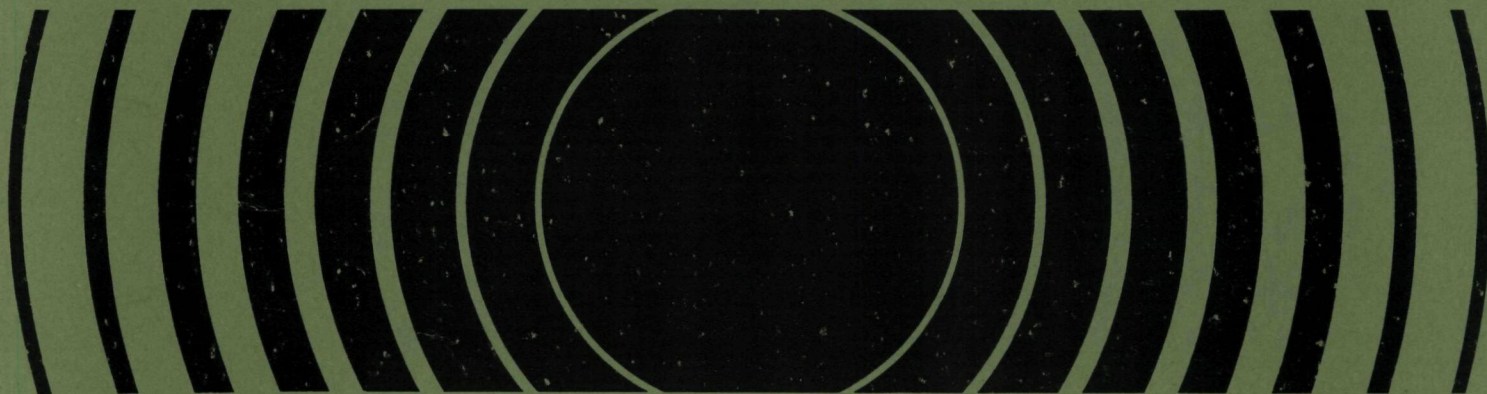




# Radiological Exercise Planning Manual



**ENVIRONMENTAL PROTECTION  
AGENCY  
RADIOLOGICAL EXERCISE PLANNING  
MANUAL**



**June 30, 1998**

**U.S. Environmental Protection Agency  
Office of Radiation and Indoor Air  
Washington, DC**

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## **SECTION I**

### **WHAT IS THE PURPOSE OF THIS MANUAL?**

This manual provides the Environmental Protection Agency (EPA) Office of Radiation and Indoor Air (ORIA) guidance for planning, developing, and executing a radiological or nuclear accident/incident response exercise. The manual:

- Emphasizes the value of exercising in testing and improving emergency plans and training emergency response personnel.
- Provides pointers for selecting the appropriate exercise type and exercise objectives.
- Serves as a reference and planning guide for anyone involved in the coordination of a radiological exercise and planning guide for training events.

The manual comprises 12 major sections.

- **Section I: What Is the Purpose of This Manual?**
- **Section II: What Is the Legal Basis for an EPA Radiological Exercise Preparedness Program?**
- **Section III: Why Have an EPA Radiological Exercise Program?**
- **Section IV: What Are the Different Types of Exercises?**
- **Section V: What Is the Process for Developing an Exercise?**
- **Section VI: What Conferences Are Conducted?**
- **Section VII: What Type of Documents Are developed?**
- **Section VIII: What Training and Orientation Is Conducted?**
- **Section IX: How Do You Control and Conduct the Exercise?**
- **Section X: What Happens After the Exercise?**
- **Annex A: Exercise Planning Points of Contact**
- **Annex B: Abbreviations and Acronyms**



## **SECTION II**

### **WHAT IS THE LEGAL BASIS FOR AN EPA RADIOLOGICAL EXERCISE PREPAREDNESS PROGRAM?**

The EPA Radiological Exercise Preparedness Program is being developed to support EPA's responsibilities as delineated in the following Federal regulations, plans, and Executive Orders (EOs) that stipulate the requirements for the EPA Radiological Exercise Program.

#### **A. EPA RADIOLOGICAL EMERGENCY RESPONSE PLAN (EPA RERP)**

The EPA Radiological Emergency Response Plan provides guidelines for EPA to respond to a radiological accident/incident. The plan tasks the EPA Radiological Emergency Response Team (RERT) and potentially other emergency response members to participate periodically in radiological accident/incident exercises.

#### **B. NATIONAL OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN (NCP)**

The NCP provides the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants. EPA is tasked to designate On-Scene Coordinators (OSCs) who will direct response efforts and coordinate all other efforts at the scene of a discharge or release of hazardous materials (HAZMAT). EPA is also tasked to establish an Environmental Response Team (ERT). The ERTs will provide assistance to the OSCs.

#### **C. FEDERAL RADIOLOGICAL EMERGENCY RESPONSE PLAN (FRERP)**

The FRERP provides the Federal Government's concept of operations for a multi-agency response to radiological emergencies. The FRERP specifies that Federal agencies, in conjunction with State and local governments, will periodically conduct radiological exercises. The FRERP also tasks Federal agencies to assist other Federal agencies, and State and local governments, with planning and training activities designed to improve response capabilities for a radiological accident/incident.

#### **D. FEDERAL RESPONSE PLAN (FRP)**

The FRP expedites the delivery of Federal response assistance to States to assist their recovery operations from the consequences of a significant disaster. The plan assigns EPA as the lead agency responsible for planning and implementing Emergency Support Function (ESF) #10 once the President issues a disaster declaration under the Stafford Act, which identifies the Federal response actions for an accident or incident involving the actual or potential discharge and/or release of HAZMAT.

#### **E. EXECUTIVE ORDER 12656 (EO-12656)**

This order assigns Federal Departments and agencies emergency preparedness responsibilities for national security emergencies. One of EPA's responsibilities is to develop Federal plans and foster development of State and local plans designed to prevent or minimize the ecological impact of hazardous agents (chemical, biological, or radiological) introduced into the environment in national security emergencies.

#### **F. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) RULE 44 OF THE CODE OF FEDERAL REGULATIONS (CFR) PART 351 (44 CFR 351)**

This CFR addresses Federal agency roles and assigns tasks regarding Federal assistance to State and local governments in their radiological emergency planning and preparedness activities. The assignments are applicable to radiological accidents at fixed nuclear facilities and transportation accidents involving radioactive materials. One of EPA's assignments is to participate with FEMA in assisting State and local governments in developing their radiological emergency plans, evaluating exercises to test plans, and evaluating the plans and preparedness activities.

### **SECTION III**

#### **WHY HAVE AN EPA RADIOLOGICAL EXERCISE PROGRAM?**

EPA ORIA's primary reason for maintaining an exercise program is to enhance and ensure Headquarters' (HQ), Laboratories, and Regional radiological emergency preparedness and response capabilities. EPA's Radiological Exercise Program will:

- Provide a means to assess the adequacy of agency plans, procedures, and response capabilities.
- Reinforce the knowledge, skills, and abilities of agency emergency response personnel.
- Provide training for emergency response personnel under varying scenarios or situations.
- Require participants to network with each other and coordinate decisions on resources and policy issues.
- Identify and streamline procedural and policy gaps.
- Provide an opportunity to reveal conflicts between Federal, State, or local government procedures or equipment (e.g., the EPA's sampling procedures could be different than those of the State and local governments).
- Confirm roles and responsibilities.
- Evaluate training effectiveness.
- Foster teamwork among Federal, State, and local HAZMAT responders and other organizations such as Red Cross, FEMA, etc.
- Enhance public awareness and support for overall emergency management programs.



## **SECTION IV**

### **WHAT ARE THE DIFFERENT TYPES OF EXERCISES?**

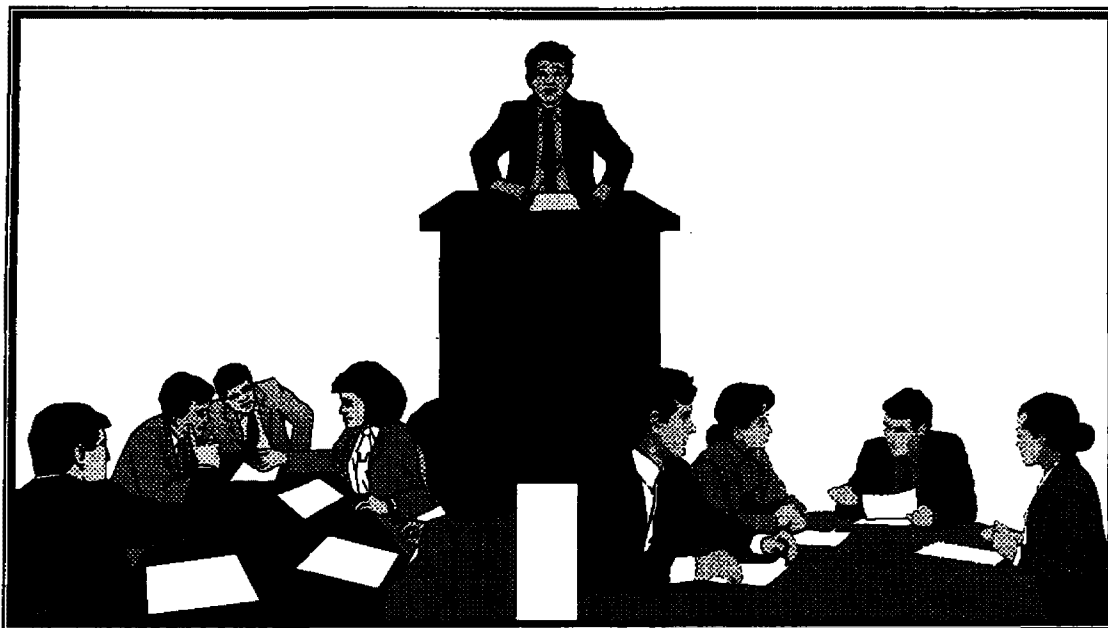
Federal, State, and local governments and private organizations have used a variety of exercise types to assess the adequacy of their emergency plans. They have also used different terminology to describe these exercises. The following are the standard exercises EPA ORIA uses to test Radiological Emergency Response elements and procedures.

#### **A. TABLETOP EXERCISES (TTXs)**

A TTX is an activity in which elected or appointed officials and key staff with emergency management responsibilities gather in an informal seminar setting, usually in a conference room. TTX participants discuss actions to be taken during an emergency based upon the emergency plan and its Standard Operating Procedures (SOPs). The primary characteristic is a verbal "walk-through" of a response to an emergency situation. The TTX is designed to elicit constructive discussion by the participants as they examine and resolve problems based on the emergency plan.

The purpose of a TTX is to have participants practice problem solving and resolve questions of coordination and assignment of responsibilities in a non-threatening format, under minimum stress. TTXs can be used in preparation for a functional or full-scale exercise.

TTXs typically involve a limited explanation of operational response and/or internal coordination activities. The objectives of the exercise will determine the number of participants from local agencies. Post-exercise evaluation activities are usually limited to an oral critique session during which recommendations for improvement are discussed with and among participants. A brief written report summarizing exercise activities and recommendations for improvement may also be prepared. The use of controllers, who are not players in the exercise, can help identify opportunities for improvement. The number of controllers needed will vary depending upon the size of the community, resources available, and number of functions exercised. One or two controllers are frequently used, but six or even more could be used for a large exercise. **Figure 1** depicts the recommended layout for a TTX. This layout provides participants the opportunity to face each other, with the moderator in the middle. The moderator will present the group questions/issues and then allow all members to provide their response. Controllers will monitor the responses provided by the members. Controllers will sit in an area (not at the table) whereby they will be able to hear what is being discussed.



**Figure 1. Suggested Layout for a TTX**

## **B. COMMAND POST EXERCISES (CPXs)**

Some Federal and State emergency response organizations use the terminology Command Post (CP), and some use the name Functional for this type exercise. In this manual, the term CP will be used. A CPX is more extensive than a TTX in that activities are conducted beyond a conference room atmosphere. It usually takes place in some type of Emergency Operations Center (EOC), with concurrent field activity (e.g., at the scene of a simulated incident/related incident). This type of exercise often focuses on a single function or activity within a function (e.g., direction and control). It can also involve deploying equipment for a specific limited purpose.

The purpose of a CPX is to test the planning and response capabilities of personnel and systems in specific situations. For example, a direction and control CPX could be designed to test and evaluate the centralized emergency operations capability and timely response of one, two, or several units of Government under a stressful environment. The exercise might be centered in one or more EOCs or CPs and could either simulate or involve the use of limited outside activity and resources. The level of resources mobilized should be adequate to demonstrate the direction and control operations in response to the simulated emergency.

The scope of activity in a CPX includes more policy and coordination personnel than are usually involved in TTXs. The level of response agency coordination should increase as more agencies from State and local governments participate. The number of controllers needed is usually more than for a TTX; 4 to 12 controllers is a fairly typical range. These numbers are only examples, however, the number of controllers will vary from exercise to exercise, depending on the size of the exercise and number of functions exercised. Post-exercise

activities include an oral critique and a written report of the exercise activity and recommendations for followup activity being submitted to local officials.

### **C. FIELD EXERCISES (FXs)**

Some Federal and State emergency response organizations use the terminology Field Training Exercise (FTX), and some use the name Full Scale for this type of exercise. In this manual, the term Field Exercise (FX) will be used. An FX is more extensive than a TTX and CPX in that activities are conducted in the field environment and not limited to a conference room or EOC. An FX is used to evaluate response organizations' operational capabilities in an interactive manner over several hours or days.

The purpose of an FX is to test a major portion of the functions in an emergency plan and/or SOPs. An FX incorporates a high degree of realism, extensive involvement of resources and personnel, and an increased level of stress. Player activity drives the exercise.

This type of exercise includes mobilization of personnel and resources to several sites (e.g., State and local EOCs, Incident Command Posts [ICPs], mass care centers, medical facilities, and equipment staging areas). This usually involves the actual movement of emergency personnel and equipment required to demonstrate a coordinated response capability.

An FX involves operational or technical personnel as well as policymakers. The number of controllers is usually more than that required for either a TTX or CPX. The number of controllers could range from 25 to 50, depending on the size of the exercise. Post-exercise activities include an oral critique, a participant debriefing, and a formal written report. **Table 1** addresses the exercise characteristics for each type of exercise.

**Table 1. Exercise Characteristics**

	<b>TABLETOP (TTX)</b> (Verbal "Walk-Through")	<b>COMMAND POST (CPX)</b> (Limited, Function-Specific Activity)	<b>FIELD EXERCISE (FX)</b> (Extensive Field and Functional Activity)
<b>WHO</b>	<ul style="list-style-type: none"> <li>- Elected/appointed officials</li> <li>- Key emergency management staff</li> <li>- Includes Federal, State, and local agencies</li> </ul>	<ul style="list-style-type: none"> <li>- Same as TTX, plus function-specific policy and coordination personnel</li> <li>- Includes Federal, State, and local agencies</li> </ul>	<ul style="list-style-type: none"> <li>- Maximum participation of all relevant agencies and personnel</li> </ul>
<b>WHAT</b>	<ul style="list-style-type: none"> <li>- Discusses actions to be taken during simulated emergency situations</li> <li>- Internal and external coordination activities</li> </ul>	<ul style="list-style-type: none"> <li>- Exercise-specific functions (e.g., direction and control alert and notification)</li> <li>- Coordination internally and externally</li> </ul>	<ul style="list-style-type: none"> <li>- Exercises most elements of response plans and SOPs</li> </ul>
<b>WHERE</b>	<ul style="list-style-type: none"> <li>- Conference room</li> <li>- EOC</li> </ul>	<ul style="list-style-type: none"> <li>- EOC</li> <li>- Scene of functional activities in field (e.g., alert, notification response)</li> <li>- Scene of a fixed facility or a transportation incident</li> </ul>	<ul style="list-style-type: none"> <li>- State and local EOCs</li> <li>- ICP</li> <li>- EPA mobile capabilities</li> <li>- Fixed facilities or field sites</li> </ul>
<b>WHY</b>	<ul style="list-style-type: none"> <li>- Practice problem solving</li> <li>- Evaluate emergency plans</li> </ul>	<ul style="list-style-type: none"> <li>- Test the functional planning and response capabilities of personnel and systems</li> </ul>	<ul style="list-style-type: none"> <li>- Test major portion of the plan with high degree of realism and extensive involvement</li> </ul>
<b>CONTROLLERS NEEDED</b>	<ul style="list-style-type: none"> <li>- At least one for each functional area</li> </ul>	<ul style="list-style-type: none"> <li>- At least one for each functional area</li> </ul>	<ul style="list-style-type: none"> <li>- At least one for each functional area and three to five for field monitoring and laboratory operations</li> </ul>

## **SECTION V**

### **WHAT IS THE PROCESS FOR DEVELOPING AN EXERCISE?**

#### **A. SELECTION OF A CHIEF EXERCISE PLANNER**

Radiological Emergency Response Exercises will be conducted by EPA Headquarters, the National Air and Radiation Environmental Laboratory (NAREL) and Radiation and Indoor Environments National Laboratory (R&IENL). Upon the decision to conduct an exercise, the office providing funding will consult with the other two offices and will appoint a Chief Exercise Planner.

#### **B. CHIEF EXERCISE PLANNER**

The Chief Exercise Planner:

- Ensures proper planning, preparation, conduct, control, and evaluation of the exercise.
- Promotes the implementation of corrective actions and improvements.
- Develops and manages the contract.
- Manages the exercise budget. The Chief Planner is responsible for allocating funds, tracking and documenting expenses, and staying within budget.
- Reviews lessons learned from past exercises and determines a plan for the current one.
- Keeps the Radiation Protection Division (RPD) Director, CRMER Director, and other RERT Commanders informed on the status of the exercise.

#### **C. CONTRACT DEVELOPMENT AND MANAGEMENT**

If the decision is to use a contractor to support the development and conduct of the exercise, the Chief Exercise Planner will develop and manage the contract or work assignment. The Chief Exercise Planner must be a certified Work Assignment Manager.

A decision as to whether contractor support is required should be made far enough in advance to assure the required contract documentation is properly processed.

#### **D. SELECT AN EPA EXERCISE DESIGN TEAM**

A key element in the successful development of an exercise is to establish an Exercise Design Team. The "Team" selects the scope and objectives of the exercise.

The Exercise Design Team should consist of the CRMER Director, Chief Exercise Planner, representatives from NAREL, R&IENL, affected Region Superfund Office, and affected Region Radiation Program Manager. Representatives from State and local agencies should be added after the EPA Exercise Design Team's first meeting. The Team may include industry representatives from the facility being used in the exercise for tabletop or field play or, for transportation-related scenarios, representatives from the shippers or carriers. Because they usually are first to notice unusual and potentially dangerous events, they play a crucial role in the design of a realistic exercise.

Assign team members who are knowledgeable in the disciplines or functions being exercised. These persons should also have experience in emergency management and response, be creative, and possess "team building skills."

#### **E. EXERCISE DESIGN TEAM**

The Exercise Design Team:

- Identifies the objective of the exercise.
- Selects the exercise site.
- Decides the extent of exercise play.
- Writes the exercise scenario.
- Identifies the exercise participants.
- Briefs their respective senior leaders on the exercise.

(If contractor support is used, they will assist by providing recommendations for all of the above.)

#### **F. SELECTION OF AN EXERCISE SITE**

The selection of the exercise site should be a joint effort between the EPA, State, and local communities. The EPA Exercise Design Team members should select several proposed exercise sites. This should be done at least 6 months prior to Tabletop and 18 to 24 months prior to a Command Post or Field Exercise. The following items should be considered in

selecting a proposed exercise site for a TTX or CPX (FX recommended issues are addressed in **Table 2**):

**Table 2. Considerations When Selecting a Site for an FX**

*(\*Items that also apply to TTX or CPX)*

*1.	Budget: What the exercise will cost to plan, conduct, and evaluate.
*2.	FEMA multi-year exercise schedule and DoD, Joint Staff/Joint Training Master Schedule.
*3.	Availability of Federal, State, and local government emergency response elements.
*4.	Availability of State radiological health personnel
*5.	Objectives of the exercise.
*6.	Number of participants.
7.	How many radiological monitoring teams will be used.
*8.	What is the scenario? Does the scenario simulate an incident in an urban area or remote location?
*9.	Will the site be available for exercise use?
10.	Number of buildings or separate locations available. If the exercise will be a major exercise and involve the Federal Radiological Monitoring and Assessment Center (FRMAC), Joint Information Center (JIC), and Joint Operations Center (JOC), several separate buildings will be needed. The size and number of buildings will depend on the number of participants.
11.	Sufficient electrical power available to support equipment (e.g., portable generators, computers, fax machines, laboratory equipment, and radios).
12.	Sufficient telephone communications capability available.
13.	Determine what type of construction or repairs (buildings, electrical, and telephone) are scheduled for the exercise location that may interfere with the exercise.
14.	Sufficient toilets and sanitary facilities available. For an FX you will probably have to rent portable toilets.
15.	Are there any State, local, national, or international events that could interfere with the exercise?
16.	Is there access to copying machines or computers? If not you may have to rent these items.
17.	Will there be a requirement for security guards during exercise play and non-exercise play?
18.	If the exercise is being conducted on a Federal, State, or local government installation, find out if the host is capable of providing security guards. If the exercise is not conducted on a Government installation, you will have to procure the services for security guards.
19.	Is there sufficient lodging near the exercise site?
20.	Is there a sufficient number of rental cars in the general vicinity of the exercise site?
21.	Is there a major airport near the exercise site?
22.	Are there eating facilities near the exercise site?
23.	Are there medical facilities in the general vicinity of the exercise site?
24.	What is the weather at that time of year? Is there sufficient means of heating, cooling, and water available for people involved in the exercise?
25.	Is there sufficient lighting for both day and night operations.
26.	Is there ample parking around the site? If not, are there available buses to bring people to and from hotels?



- Budget: What the exercise will cost to plan, conduct, and evaluate.
- Date of the last exercise conducted in that particular EPA Region.
- Objectives of the exercise.
- Projected Events: State, local, and national or international events that could interfere with the exercise or securing of adequate logistical equipment.
- FEMA multi-year exercise schedule and Department of Defense (DoD), Joint Staff/ Joint Training Master Schedule.
- Site availability.
- Availability of State radiological health personnel.
- Availability of emergency response elements.
- Weather at that time of year.
- Political climate.

After selecting several proposed exercise sites, the EPA Chief Exercise Planner will contact each of the proposed exercise site representatives to determine if the State and local communities would be receptive to conducting an exercise. Once an exercise site or a list of possible sites is selected, a Site Selection group should visit the area to ensure its suitability for the exercise. Representatives from EPA and State and local communities should conduct an initial planning meeting approximately 14 to 18 months before the exercise.

## **G. EXERCISE SCHEDULE**

The FEMA Exercise Division develops and manages, in coordination with other Federal Departments and agencies, a multi-year exercise schedule for FEMA Regional Offices, State and local governments, and private and volunteer sector organizations. The EPA Chief Exercise Planner will contact and provide the FEMA Exercise Division with the proposed dates for the EPA scheduled exercise. The EPA Chief Exercise Planner will also contact the projected participating Federal agencies to inform them of the proposed exercise. This will eliminate conflicts with other Federal, State, and local government exercises. **Table 3** identifies the recommended scheduling time for the different types of exercises.

**Table 3. Recommended Exercise Schedule**

TYPE OF EXERCISE	SCHEDULING TIME
TTX	18 months before the exercise
CPX	2 years before the exercise
FX	2 years before the exercise

## **H. ESTABLISH EXERCISE OBJECTIVES AND EXTENT OF PLAY**

The success of the exercise is dependent on the quality of the exercise objectives. The EPA Chief Exercise Planner must develop a proposed set of exercise objectives prior to the Initial Planning Conference (IPC) to provide a basis for discussion between planners. The exercise planning team will take the following steps in developing the exercise objectives and extent of play:

- Conduct a needs assessment to identify areas not previously tested or that need improvement based upon previous exercises or actual events.
- Determine the stage of development of emergency response plans and procedures.
- Determine the nature and extent of risk posed by radiological materials located in or passing through the community.
- Ensure each exercise objective clearly states what is to be demonstrated.
- Ensure the objective is measurable.

## **I. ESTABLISHMENT OF WORKING GROUPS**

Depending on the scope of the exercise, one or more working groups may be established to assist in the development, design, conduct, and evaluation of the exercise. Each working group should have a leader chosen for his/her reliability, experience, and prior relationships with the primary planners. Each working group develops specific objectives that support the broader, overall exercise objectives. Working groups should meet at the scheduled planning conferences and on an as-needed basis throughout the planning cycle. The working group leader will keep the Chief Exercise Planner informed and coordinate all working group meetings. The following list provides some background on the typical working groups; however, not all groups are used for each exercise, and new groups are added as required.

**Exercise Steering Group** – The Exercise Steering Group provides overall guidance and focus for the exercise. This group is made up of senior planners and working group leaders

and is chaired by the EPA Chief Exercise Planner. The Exercise Steering Group provides specific instructions or guidance for each working group and serves as the approving authority for exercise plans and activities. It is imperative that the group meet early in the planning cycle and routinely thereafter to ensure continuity of planning.

**Scenario** – The Scenario Working Group (SWG) is made up of key planners familiar with exercises and radiological material hazards. The SWG consist of planners from Federal, State, and local government levels. The SWG ensures that there is adequate play to test all objectives. They develop agreed-upon source terms based on participant objectives and consistent with current source term technology. The SWG will establish a team consisting of HQ EPA ORIA; Laboratories; and the effected EPA Region, State, and local government representatives to develop the radiological scenario for the exercise. After the scenario is developed, the SWG presents the scenario to the full complement of planners. After acceptance of the general scenario, the SWG usually disbands. This group is not always used in developing an exercise.

**Hazards** – The Hazards Working Group establishes the hazards pattern. This group prepares appropriate deposition plots, ensuring the development and distribution of complimentary data sets for monitoring and assessment. The group assists in identifying hazard response teams and corresponding controller personnel requirements. This group also provides information to the Medical Working Group to assist in determining the extent and types of casualties. Depending on the scenario, the Team may consist of personnel from the State and local government Fire Department, Hazardous Material Team, and Radiological Emergency Response Office. Working Group members should be knowledgeable of the characteristics of HAZMAT and explosives.

**Medical** – The Medical Working Group will determine the number and types of casualties in relation to the level of contamination, developing corresponding hospital and medical response play. They will determine specific casualties and identify the actors to play the injured and contaminated personnel who require medical treatment from the participating medical facilities.

**Policy** – The Policy Working Group addresses international, national, and State and local government policy issues related to the exercise. After coordination with appropriate working groups and the Chief Exercise Planner, the Policy Group develops exercise play to include real-world policy issues affecting response, recovery, restoration, and remedial actions. They also identify relevant and applicable policy for the exercise.

**Legal** – The Legal Working Group develops the legal portion of the scenario. This group works closely with the Policy Group, dealing with real-world and exercise issues that have legal implications. To ensure proper legal play, the Legal Group develops scenario injects that specifically address legal and policy issues in conjunction with the Policy Group.

**Communications** – The Communications Working Group is responsible for developing exercise communications operating plans to meet participant requirements. The Communications Working Group will review controller and player needs (both real-world and exercise related) to ensure the adequacy of communications capabilities and determine any requirements for additional communications equipment. Once the communications operating plans have been approved, the Communications Group will coordinate with the participants and other supporting activities to ensure the communications plans are fully implemented.

**Safety** – The Safety Working Group is primarily concerned with site safety during the exercise. This group examines the site location and identifies any safety concerns. After the site survey, the group develops a written site Safety Plan that is incorporated into the exercise documentation. Prior to and during the exercise, the Safety Working Group ensures that safety issues are addressed during briefings and provides for the assignment of safety-related duties to specific individuals.

**Security** – The Security Working Group develops the Security Plan for the exercise. The plan includes provisions for collecting security clearances, developing badging requirements, and providing security training. Once the plan is approved, the Security Working Group ensures full implementation.

**Protocol** – EPA, other participating agencies, and site representatives make up the Protocol Working Group to address all the details related to observers or Very Important Persons (VIPs) visiting the exercise site. The EPA representative plans the itinerary for a Visitors' Day, and all arrangements are coordinated with the site Protocol Officer. Participating agency support of the Visitors' Day, or other site visits, is coordinated through the Protocol Working Group. Specific arrangements and briefings are subject to approval by the Chief Exercise Planner and Exercise Director.

**Public Affairs** – The Public Affairs (PA) Working Group is responsible for real-world PA issues, exercise PA injects, and creation of a credible media simulation cell that will challenge the exercise participants. This group is also responsible for coordinating any scheduled media day and ensures that public information activities concerning the exercise are administered in accordance with guidance provided by the Exercise Director and Chief Exercise Planner.

**Logistics** – The Logistics Working Group is responsible for planning the logistics operations to meet the requirements for both controllers and players. This includes all transportation, administrative and operational supplies, office equipment, dining requirements, and transportation needs. Once a Logistics Plan is developed and approved, the Logistics Group is responsible for its coordination and implementation.

## **J. ESTABLISH EXERCISE GROUND RULES**

Exercise ground rules should be published at least 60 days before the exercise and can be found in the Controller Handbook and Players Guide. The ground rules will address the following:

- Operation and control of the exercise:
  - Exercise initiation.
  - Conflict resolution.
  - Exercise closeout.
- Role of exercise controllers:
  - Injection of exercise messages, events, and data.
  - Resolution of exercise-related conflicts.
  - Suspension/termination of scenario events.
- Role of exercise evaluators:
  - Interview players.
  - Request copies of information, logs, sign-in sheets, and status boards.
  - Provide feedback to exercise participants during post-exercise evaluator/participant interviews.
- Federal, State, and local laws; regulations; ordinances; statutes; and legal requirements applicable to exercise:
  - Authority of police and sheriff's department officials.
  - Traffic laws.
  - Rules for personnel and property safety.
  - Priority of actual emergencies over exercise play.
  - Role of volunteer agencies and players.
  - Expected play and agency attendance at and participation in exercise-related meetings.

**Table 4** addresses recommended initial actions you should accomplish when designing and developing an exercise.

**Table 4. Recommended Initial Exercise Design and Development Actions Timeline**

<b>ACTION</b>	<b>DATE REQUIRED</b>	<b>LENGTH OF TIME TO COMPLETE</b>
1. Obtain management support for the exercise	24 to 36 months before the exercise	3 months
2. Have exercise placed on the FEMA Joint Master Exercise Schedule (JMEXS)	2 years before exercise	2 months
3. Procure funding for exercise (Note: The planning and conduct of the exercise may cover more than one fiscal year. Procurement of funding may require at least two fiscal years.)	18 to 24 months prior	6 to 8 months
4. Select a Chief Exercise Planner	18 to 24 months prior	1 week
5. Chief Planner develops planning timeline	18 to 24 months prior	2 weeks
6. Decide if contractor support will be used	18 to 24 months prior	2 to 3 months
7. Develop contract (Statement of Work [SOW])	18 to 24 months prior	1 month
8. Select contractor	18 months prior	3 to 4 months

## SECTION VI

### WHAT CONFERENCES ARE CONDUCTED?

#### A. INITIAL CONCEPT CONFERENCE (ICC)

Representatives from EPA ORIA, Regions, NAREL, and R&IE will attend the ICC. The conference should be scheduled 18 to 24 months prior to the planned exercise execution date and should last 1 or 2 days. Table 5 provides a typical list of all the conferences that will be required. A successful initial conference should:

- Specify type of exercise to be conducted.
- Develop tentative timeline.
- Identify proposed location.
- Determine funding plans.

**Table 5. Recommended Conferences Timeline**

<b>ACTION</b>	<b>DATE REQUIRED</b>	<b>LENGTH OF TIME TO COMPLETE THE ACTIVITY</b>
1. Conduct ICC meeting with representatives from NAREL, R&IE, and the EPA Region on where the exercise will be conducted, and select the site	18 to 24 months prior	2 days
2. Conduct initial planning meeting with Federal, State, and local governments	14 to 18 months prior	1 day
3. Conduct IPC	12 months prior	2 days
4. Conduct Site Survey and Scenario Development Conference	10 months prior	2 to 3 days
5. Conduct Scenario Review and Inject Development Conference	8 months prior	2 to 3 days
6. Conduct Inject Review and Logistic Planning Review Conference	6 months prior	2 to 3 days
7. Conduct Logistics Review Conference	4 months prior	1 to 2 days
8. Conduct Final Planning Conference	2 months prior	2 to 3 days

#### B. INITIAL MEETING WITH FEDERAL, STATE, AND LOCAL GOVERNMENTS

If the exercise scenario requires EPA to be the Lead Federal Agency (LFA) in a multi-agency response under the FRERP, other Federal agencies should be invited to the initial and followup meeting. If EPA will not be the LFA under the FRERP, other Federal agencies may not be required. The initial meeting with either Federal, State, or local government representatives is conducted about 14 to 18 months before the exercise. The primary purpose of the meeting is to meet Federal, State, and local government representatives. EPA representatives from ORIA, Region, NAREL, and R&IE will attend the meeting. Annex A is a listing of Federal agencies that participant in radiological exercises. Exercise objectives and locations will determine who should be invited to attend the initial meeting. The following are agenda items to be discussed at the meeting:

- Purpose of exercise.
- Proposed exercise objectives and scope.
- Proposed type of exercise.
- Proposed exercise schedule.
- Funding.
- Proposed Federal agencies participation.
- State and local government participation.
- Selecting the exercise site.

### **C. INITIAL PLANNING CONFERENCE (IPC)**

The IPC provides the first opportunity for planners and participants to discuss the exercise and provide input. The primary purpose of the conference is to come to an initial agreement on exercise concepts and objectives and to form the working groups. This conference should be scheduled 12 months prior to the planned exercise execution date and usually lasts 1 or 2 days. EPA ORIA, Region, NAREL, R&IE, and State and local government personnel should attend. The following is a list of items that should be covered at the IPC:

- Establish the point of contact for the exercise.
- Objective of the meeting.
- Proposed purpose of the exercise (i.e., exercising the HQs, Laboratories, and Regional radiological emergency preparedness and response capabilities).
- Exercise concept (i.e., TTX, CPX, or FX and time of play).

- Location and date for the exercise.
- Exercise objectives. (Each participant organization will have an objective they plan to achieve from the exercise [i.e., exercise decision-making process for Protective Action Recommendations] and test the adequacy of emergency response forces equipment.)
- Exercise scope. (What functional areas will be represented in the exercise [i.e., radiological monitoring, medical, logistics, etc.]?)
- List of tentative participants.
- Availability of resources from all sources (Federal, State, local, and private sectors).
- Exercise planner responsibilities.
- Budget for the exercise.
- Name of the exercise.

#### **D. SITE SURVEY AND SCENARIO DEVELOPMENT CONFERENCE**

The Site Survey and Scenario Development Conference should be conducted approximately 45 to 60 days after the IPC. The purpose of this conference is to brief exercise planners on the exercise objectives, develop the scenario, and survey the exercise site. A survey of the site should be conducted before the development of the scenario. The following items must be considered when conducting the site survey:

- **Exercise Objective and Extent of Play** – Consider the type of exercise, site capabilities, and limitations for TTX, CP/Functional, and FX/Full-Scale exercises.
- **Budget for the Exercise** – Consider the amount budgeted when surveying the site capabilities and limitations. Determine if the site capabilities will provide you the infrastructure you will require for the exercise (i.e., private rooms, electrical systems available, sufficient sanitary facilities are in place, etc). If the infrastructure is limited, you may have to provide funding for renting the required support (i.e., toilets, chairs, etc.).
- **Available Facilities** – The number and type of facilities required are determined by the type of exercise. There should be sufficient space and facilities to realistically separate the player locations and provide areas for the required controller operations.
- **Sufficient Toilets and Sanitary Facilities** – Local Department of Health authorities can indicate how many restrooms and sanitary facilities are needed, based on the projected number of people attending.

- **Lodging Space** – Determine whether there is adequate lodging in the local area for all out-of-town participants.
- **Weather** – Determine if sufficient heating, cooling, and water are available for exercise participants.
- When developing the exercise scenario, planners must consider the following:
  - The objectives of the exercise.
  - The extent of exercise play.
  - Who will participate as players and controllers.
  - A description of where, what, and when the accident/incident occurred.
  - Security classification.
  - Clearly defined, preplanned times of the various stages of the accident/incident.
  - Props that will be used to simulate the radiological materials.
  - Use of realistic weather conditions in the scenario, but not necessarily the actual weather on the day of the exercise.
  - Impact of real weather at exercise time of play, deployment, health and safety, etc.
  - Designing the exercise scenario so that requirements for protective actions are not predictable. Some exercise scenarios could be used that would not require or prompt the immediate evacuation of personnel.
  - Consideration of simulating a real past incident. Review case history of accidents/incidents that have occurred.

#### **E. SCENARIO REVIEW AND INJECT DEVELOPMENT CONFERENCE**

The Scenario Review and Inject Development Conference should be conducted about 60 to 90 days after the Site Survey and Scenario Development Conference. The purpose of the Scenario Review and Inject Development Conference is to review the scenario and start the development of the injects. The conference is scheduled for at least 2 full days. Issues to be considered or completed during the conference include:

- Finalization of the scenario. Review data and go over the entire scenario page by page!

- Review of draft injects and development of final draft injects.
- Ensuring sufficient exercise play to cover the extent of the exercise.
- Ensuring injects possess the following qualities:
  - Reflect exercise objectives.
  - Are realistic.
  - Stimulate players to provide a response and promote discussion.
  - Have a clear purpose and objective.
- Setting parameters for technical data.

## **F. HOW INJECTS WORK ON FIELD PLAY**

Injects are prepared scenario messages given to players to stimulate play. Injects used during a FX allow for players to have more free play. Free play allows players to respond to an exercise event the same way they would for a real event. Injects used in field play should not describe situations that players can, and should, recognize through their own senses. Players will be provided information as they progress through the scenario and “earn” information. To earn information, the players must act in a manner that would provide them the information in a real event. For example, a radiological monitoring team conducting survey monitoring would be provided a radiological reading verbally as they processed through the area. All of the Injects are monitored by the Exercise Master Control Cell.

## **G. INJECT REVIEW AND LOGISTIC PLANNING CONFERENCE**

The Inject Review and Logistic Planning Conference should be held about 90 days after the initial Inject Development Conference. For an exercise scheduled for 4 to 5 days of exercise play, it should take 3 to 4 days to adequately review the Injects. A half or full day should be scheduled to discuss and identify logistics requirements. **Table 6** provides recommended actions for accomplishing logistics requirements. The following items are considered during the logistics segment of the conference:

- The number of participants (e.g., controllers, players, observers, and VIPs). Each organization will provide its expected number of participants no later than (NLT) 30 days after the conference.
- The size of the exercise site.

- Current logistic capabilities of the site (e.g., number of facilities available to house exercise participants, telephones, and electrical power).
- People and equipment each participating organization will bring to the site.
- Each organization's logistics requirements. All participating organizations provide their logistics requirements to the logistics point of contact (POC) NLT 30 days after the conference.
- Lodging Requirements: How many hotel rooms available during the exercise.
- Weather: Extreme cold or hot, etc.
- Eating requirements.

**Table 6. Recommended Logistics Timeline**

<b>ACTION</b>	<b>DATE REQUIRED</b>	<b>LENGTH OF TIME TO COMPLETE ACTIVITY</b>
1. Exercise site current logistics and facilities capabilities identified	6 months prior	3 weeks
2. Request submitted to exercise planners for their logistic and facilities requirements	5 months prior	2 days
3. Initial logistics and facilities requirements developed	4 months prior	1 month
4. Lodging reservations accomplished	3 months prior	3 weeks
5. Final logistics and facilities requirements determined	2 months prior	1 month
6. Exercise participants feeding plan developed	1 month prior	1 week
7. Transportation plan completed	3 to 2 months prior	3 weeks
8. Communications plan completed	1 month prior	1 month
9. Radio frequencies identified	1 month prior	2 weeks
10. Traditional logistics and facilities procured for an exercise:		2 to 4 months
a. Portable restrooms (for FX)	1 month prior	
b. Electrical requirements for laboratory vehicles	1 to 2 months prior	
c. Foul weather equipment	1 to 2 months prior	
e. Administrative supplies (e.g., paper, pen, pencils, etc.)	14 days prior	
f. Use of computers, copiers, and fax machines	1 to 2 months prior	
11. Simulation aids procured (e.g., moulage kit, contamination indicators)	1 to 2 months prior	1 to 2 months
12. Special permits obtained. Environmental	3 months prior	1 to 2 months

ACTION	DATE REQUIRED	LENGTH OF TIME TO COMPLETE ACTIVITY
Impact Statement (EIS) written and submitted if required. Permission from State and Radiological Health or Nuclear Regulatory Commission (NRC) to use sources on site.		
13. Material for identifying participants procured	2 months prior	3 weeks

## H. LOGISTICS REVIEW CONFERENCE

The Logistics Review Conference should be conducted about 60 to 90 days before the execution of the exercise. The purpose of the conference is to review and finalize all logistics requirements.

## I. DRY RUN OF THE SCENARIO

A dry run of the scenario is conducted by all Exercise Planners involved in the development of the scenario. The dry run should be conducted about 60 to 90 days before the exercise. The dry run will check to ensure that dose calculations, field readings, and laboratory generated data meet the objectives of the exercise. The dry run will also be conducted to determine if there are any major flaws in the plans for a TTX and the flow of play for a CPX or FX.

## J. FINAL PLANNING CONFERENCE

The Final Planning Conference is conducted 45 to 60 days before the execution of the exercise. **Table 7** provides recommended administrative and logistic actions to accomplish for a conference. The following items should be reviewed or accomplished at the conference:

- Review of exercise concept, objectives, and players.
- Functional area team chiefs (e.g., Policy, Hazards, Medical, Legal, Logistics, PA, and Protocol) provide status reports.
- Finalizing of communications requirements. Communications may consist of portable radios, telephones, and fax machines for the controllers.
- Logistics requirements (e.g., lodging, transportation, feeding, and administrative supplies) being finalized.
- Controller operations.

**Table 7. Recommended Administrative Actions to Do Before and After a Conference Timeline**

<b>ACTION</b>	<b>DATE REQUIRED</b>	<b>LENGTH OF TIME TO COMPLETE THE ACTIVITY</b>
1. Schedule conference/meeting facility	45 to 30 days prior	2 weeks
2. Send out conference/meeting announcement	30 days prior	3 days
3. Develop conference/meeting objectives and agenda	25 days prior	2 weeks
4. Distribute agenda	14 days prior	1 day
5. Schedule audiovisual equipment	14 days prior	1 day
6. Arrange for food/drinks, parking, and security requirements	14 days prior	3 days
7. Produce handouts or other supporting materials	7 days prior	2 days
8. Arrange for minutes of the meeting to be taken (contractor)	7 days prior	1 day
9. Ensure facility setup	1 day prior	1 day
10. Ensure sign-in sheets are available	1 day prior	1 day
11. Publish minutes	10 days after	1 week

## SECTION VII

### WHAT TYPE OF DOCUMENTS ARE DEVELOPED?

Exercise documents provide planners, controllers, players, and evaluators the information and background necessary to do their jobs. The documents required vary from exercise to exercise. Due to the complexity and time period for the development of the documents, planners should be given sufficient time to review and provide comments on the documents. After the documents have been approved by the planners, you have two options for providing the planners the final version of the documents. The first option is to issue the documents at check-in for the exercise. The second option is to issue the documents to planners when they are finalized. **Table 8** provides a recommended timeline for publishing each document. The following are documents that are generally used to plan and conduct an exercise.

**Table 8. Recommended Timeline for Publishing Documents**

ACTION	DATE REQUIRED	LENGTH OF TIME TO COMPLETE
1. Develop First Draft EXPLAN	10 months prior	3 weeks
2. Develop Draft Organization Emergency Response Procedures	8 to 10 months prior	3 weeks
3. Develop Draft Injects	9 months prior	2 months
4. Publish Final EXPLAN	8 months prior	1 day
5. Develop Draft Site Restoration EXPLAN (if used)	7 months prior	3 weeks
6. Publish Final Organization Emergency Response Procedures	7 months prior	1 day
7. Develop Draft Players Guide	2 to 5 months prior	3 weeks
8. Publish Final Site Restoration EXPLAN	4 months prior	1 day
9. Publish Controllers Handbook (including Injects)	3 months prior	1 day
10. Publish Final Players Guide	1 month prior	1 day
11. Publish Communications Directory	2 weeks to 1 month prior	1 day

#### A. EXERCISE TIMELINE

The timeline provides a sequential list of major milestones in the planning and development of exercise documents and is used by the exercise planners to schedule planning conferences and track exercise events. The timeline is flexible and changes as the exercise develops.

## **C. SECURITY CLASSIFICATION GUIDE**

The Security Classification Guide provides guidance on the classification of materials associated with the exercise. The Security Classification Guide is not required for all exercises and should be developed only if the exercise is classified or contains classified information.

## **D. EXERCISE PLAN (EXPLAN)**

The EXPLAN provides exercise planners with the information necessary to plan, design, and conduct the exercise. It contains information on the exercise concept, objectives, assumptions, artificialities, rules, and responsibilities. The EXPLAN also addresses security and logistics issues, provides PA guidance, and details safety considerations during exercise execution. It is based on planning factors and estimates available at the time of preparation and is subject to modification during the final planning and preparation phases of the exercise.

## **E. ORGANIZATION EMERGENCY RESPONSE PROCEDURES**

The Organization Emergency Response Procedures is known by some Federal, State, and local organizations as the Procedural Flow Synopsis (PROFLOW). The Organization Emergency Response Procedures describes the responsibilities and functions of organizations responding during the exercise and provides planners and controllers with a sequential list of anticipated actions by these organizations. This document lists the specific response elements and discusses the plans and policies in effect for the exercise scenario.

## **F. CONTROLLER HANDBOOK**

The Controller Handbook provides the controllers with the information necessary to conduct the exercise. Injects are a part of the Handbook. The Injects are hard copy or voice command given to players to stimulate player's responses in a specific area. The Handbook also contains background information and a basic exercise description. During planning and development, the draft Inject is produced, and after an inject review, a draft inject is produced and distributed. If the exercise is to be graded, direction for the evaluators will be included in the Controllers Handbook.

## **G. PLAYERS GUIDE**

The Players Guide provides guidance on how the exercise will be conducted and how players should participate in the exercise. The Guide also provides a synopsis of the exercise purpose, objectives, schedule of play, and ground rules.

## **I. ACCIDENT/INCIDENT DESCRIPTION**

The Accident/Incident Description provides planners with a detailed description of the exercise scenario and contains contamination plots, a comprehensive casualty list, and a list of key exercise events. The Accident/Incident Description also contains photographs and maps of the scene. Depending on the scope and type of exercise, the Accident/Incident Description may be combined with the Controller Handbook. The Accident/Incident Description should only be issued to key controllers.

## **H. COMMUNICATIONS DIRECTORY**

The Communications Directory is published in two separate books, one for players and the other for controllers. The Directory contains telephone numbers, message formats, and instructions for the type of communication equipment in use. The Communications Directory is compiled using participants' inputs and should be tested prior to exercise execution.

## **I. SITE RESTORATION GUIDE/SITE RESTORATION EXPLAN**

The Site Restoration Guide/Site Restoration EXPLAN is utilized when a separate Site Restoration Phase is played during an exercise. The Guide provides a structure for the Site Restoration Phase of the exercise and describes expected plans and player actions.

## **J. AFTER-ACTION REPORT (AAR)**

The AAR contains detailed observations and specific lessons learned as a result of exercise play. The AAR is coordinated among the participating organizations and can take several months to complete. Historically, this document requires up to three drafts prior to a final version being produced. Each draft is coordinated through the participating organizations and then returned to EPA for revision.

The AAR is prepared initially in draft form about 30 to 45 days after the exercise. EPA should provide the senior State and local government Chief Exercise Planners a copy of the draft before it is distributed to all participants for their review. After the senior State and local government Chief Exercise Planner changes are incorporated into the AAR, the report should then be submitted to other participants for their review by the Chief Exercise Planner. All comments should be received within 30 days. After resolution, the final AAR will be published and distributed first to exercise participants, and then to all other interested parties when finalized.

The AAR addresses operations that were done correctly and those that need improvement. Some of the areas and questions that may be addressed in the report are:

- The initial notification of the incident.
- Deployment of emergency response elements.

- The coordination and integration of Federal, State, and local government emergency response elements.
- Were radiological monitoring operations conducted properly?
- Was information exchanged between all agencies?
- Were communications equipment adequate?
- Did players provide the public timely notification of the hazard?
- Was a JIC established and effective?
- Were medical procedures properly followed in the handling of contaminated casualties?
- Was a JOC established?

About 2 months before the exercise, the Chief Exercise Planner should conduct a detailed review to ensure all actions are completed or on schedule. Table 9 is a recommended final readiness timeline to assist the Chief Exercise Planner in accomplishing the review.

**Table 9. Recommended Final Readiness Timeline**

<b>ACTION</b>	<b>DATE REQUIRED</b>	<b>LENGTH OF TIME TO COMPLETE ACTIVITY</b>
1. All documents completed and distributed	2 months prior	1 week
2. Facilities identified and reserved	2 months prior	2 weeks
3. Logistic requirements finalized	2 months prior	2 weeks
4. All players and controllers identified by name and organization	2 months prior	1 week
5. All observers and VIPs identified by name and organization	1 month prior	1 week
6. HQ EPA PA briefed on exercise	1 month prior	1 day
7. Plans for controllers and players orientation sessions completed	1 month prior	5 days

## SECTION VIII

### WHAT TRAINING AND ORIENTATION IS CONDUCTED?

#### A. CONTROLLER TRAINING

Controller training focuses on what the controller needs to know to control the exercise. The training is conducted 3 to 5 days before the start of exercise (STARTEX) at all locations where players will participate. The training is conducted by one of the Exercise Planners. A STARTUP ORIENTATION is also provided to the controllers who will start the exercise and focuses on the STARTEX Injects. Table 10 provides recommended administrative actions required for conducting a training or orientation session. Areas covered at controller training are:

- Exercise scenario.
- Schedule of key events.
- Exercise ground rules.
- Exercise control structure.
- Chief functional area controller responsibilities.
- Controller responsibilities.
- How to input Injects.
- How to document observations.
- Safety operations.

Table 10. Recommended Training/Orientation Sessions Timeline

ACTION	DATE REQUIRED	LENGTH OF TIME TO COMPLETE ACTIVITY
1. Schedule facility	2 months prior	3 days
2. Distribute schedule	1 to 2 months prior	2 days
3. Reserve audiovisual equipment	1 to 2 months prior	2 days
4. Arrange for refreshments	1 month prior	3 days
5. Develop handouts	1 month prior	2 weeks
6. Ensure setup of facility	1 day prior	2 days

## **B. PLAYER ORIENTATION**

Player Orientation focuses on player responsibilities and provides players with the background information necessary to participate in the exercise. Player Orientation should be conducted about 2 to 3 days before the exercise at all player locations. The training should be conducted by one of the Exercise Planners. Areas covered at Player Orientation are:

- Exercise purpose and objective.
- Exercise ground rules.
- Exercise artificialities.
- Schedule of events/explanation of data/how to read data.
- Exercise control (e.g., how the day-to-day operations will be controlled, who will controllers report to, and where will the Control Center be located).
- Identification badges.
- Communications.
- Security.
- Safety operations.
- Controllers (e.g., the controllers responsibilities).
- Public Affairs (e.g., how to and who will respond to media inquiries).
- Logistic operations (e.g., restrooms, refreshments, and eating areas).

## **C. ACCIDENT/INCIDENT SIMULATION CELL ORIENTATION**

Accident/Incident Simulation Cell Orientation is conducted to coordinate individual controller actions within the cell and ensure the most realistic simulation for the players. The Orientation Session should be conducted by the Simulation Cell Chief Controller. The orientation should be conducted about 1 to 2 days before the exercise. Areas covered for this orientation are:

- Operations of the simulation cell.
- Expected flow of events during the exercise.
- How the controllers will “paint the picture” for the players.

#### **D. MEDIA SIMULATION CELL ORIENTATION**

This orientation is the responsibility of the lead PA Controller and focuses on media actions and injects for the exercise. The training should be conducted about 1 to 2 days before the exercise.

#### **E. WASHINGTON (DC) AREA ORIENTATION**

A special orientation package may have to be developed for senior-level players in the Washington, DC, area and also for State and local government officials. The training should be conducted by the Chief Exercise Planner about 2 to 3 days before the exercise.



## SECTION IX

### HOW DO YOU CONTROL AND CONDUCT THE EXERCISE?

The purpose of controlling an exercise is to ensure that exercise objectives are accomplished. Effectively controlling the exercise also provides a means for resolving problems or handling changes in the scenario and/or timeline during exercise execution.

#### A. EXERCISE DIRECTOR

The Exercise Director has overall responsibility for the exercise. If the exercise is being jointly sponsored by EPA and the State or local government, the duties of the Exercise Director will be jointly shared. A senior level staff member will usually be the Exercise Director. Table 11 is a recommended timeline for the Exercise Director to use when conducting the exercise.

**Table 11. Recommended Conduct of Exercise Timeline**

<b>ACTION</b>	<b>DATE REQUIRED</b>	<b>LENGTH OF TIME TO COMPLETE ACTIVITY</b>
1. Controllers in place 2 hours before STARTEX	2 hours before STARTEX	3 hours
2. Controllers provide communication equipment	2 hours before STARTEX	1 day
3. Conduct status check with each Chief Functional Area Controller	1 hour before STARTEX	2 hours
4. Chief Functional Area Controller provides status report to the Chief Exercise Controller every 4 hours	Every 4 hours	1 hour
5. Conduct daily exercise debriefing with all Chief Functional Area Controllers 1 hour after daily ENDEX	End of day	2 hours
6. Collect daily observation reports from controllers	End of day	1 hour
7. Tentatively identify daily items for after exercise critique (good and bad)	End of day	2 hours
8. Start development of after-exercise briefing immediately after final Chief Functional Area Controllers meeting	End of day	2 to 4 days
9. Conduct after-exercise briefing	Last day of exercise	2 to 3 hours
10. Distribute mementos	Last day of exercise	2 weeks
11. ENDEX		

### **C. CHIEF EXERCISE PLANNER**

During the conduct of the exercise, the Chief Exercise Planner supports the Exercise Director and runs day-to-day operations during the planning and execution of the exercise. If the exercise is jointly sponsored by EPA, State, or local governments, the duties could be jointly shared with State and local governments. An associate Chief Planner is appointed to ensure continuity of exercise planning and assistance in exercise execution.

### **D. CHIEF FUNCTIONAL AREA CONTROLLERS**

Each functional area is assigned a Chief Controller. The Chief Functional Area Controller ensures each of his/her respective controllers complete their assigned duties.

### **E. CONTROLLER ASSIGNMENT/DUTIES**

A controller should be assigned to each functional area participating in the exercise. The duties of the controller are:

- Review appropriate emergency response plans, procedures, and checklists before the exercise.
- Attend required training and briefing sessions.
- Facilitate the conduct of the exercise by providing scenario information to players.
- Allow freedom of player decisions and actions.
- Inject approved contingency messages or provide instructions, as needed, to keep the exercise on track with the scenario.
- Preclude player decisions and control actions that may compromise the exercise or security.
- Observe and document the performance of the players.
- Stop the exercise if a safety hazard could cause an injury.

### **E. STARTING THE EXERCISE**

The starting procedures for each type of exercise are different. The following are general starting procedures for each type of exercise.

- **TTX.** The beginning of a TTX usually commences with the players and controllers assembled in a room; the Exercise Moderator announces the beginning of the exercise.

- **CP.** Players and controllers are assembled at their respective exercise locations (e.g., EOCs and laboratories). The exercise site location could be in several different geographically separate locations. The exercise generally begins by a controller inputting an Inject into an EOC announcing an accident or incident.
- **FT.** Players and controllers will be assembled at their respective exercise locations (e.g., EOCs and laboratories). If the objective is to test the mobility and response time of the players, they will not pre-assemble at the exercise location. The exercise begins with the accident/incident simulation at the scene and continues as responding forces arrive at the accident/incident location.

## **F. DAILY EXERCISE OPERATIONS**

**F** The EPA Chief Exercise Planner, under the auspices of the Exercise Director, is responsible for the day-to-day operations of the exercise. The EPA Chief Exercise Planner controls the exercise through the Master Control Cell (MCC). The MCC is established to control, observe, and record player operations. The MCC consists of controllers from EPA, other Federal agencies, and State and local governments.

## **G. ALL CONTROLLERS**

All controllers will:

- Manage exercise play by implementing the Injects and by functioning, as required, to simulate designated non-participating elements.
- Introduce, maintain, and coordinate exercise events in accordance with the Injects.
- Make voice injects to player elements as scheduled in the Controller Handbook, or as directed by the Chief Exercise Planner.
- Ensure delivery of written injects to player elements at scheduled times.
- Observe and report exercise artificialities that interfere with exercise realism.
- Observe exercise play and provide comments on player free-play actions and on individual injects.
- Receive outgoing exercise materials, messages, memorandums, etc., from exercise participants sent to simulated agencies and individuals.
- Coordinate the contents of exercise materials with appropriate controllers in other locations.

- Submit Observation Forms to the EPA Chief Exercise Planner.
- Provide input on significant player actions and exercise events as a basis for the exercise AAR.
- Submit a status report to the Chief Exercise Planner at the ENDEX day.

A controller folder should be provided to each controller and contains forms for recording observations and post-exercise/after-exercise briefing topics. These forms will be given to the Chief Exercise Planner at the ENDEX, prior to the after-exercise briefing.

Daily meetings should be conducted for Chief Functional Area Controllers to provide a short synopsis of the events they observed that day. The meeting will also provide an opportunity for controllers to review current status and future events.

## **SECTION X**

### **WHAT HAPPENS AFTER THE EXERCISE?**

There are numerous activities conducted after an exercise. These activities include the debriefing, site cleanup, AAR, and followup actions. Table 12 is a recommended timeline for accomplishing post-exercise administrative actions. Also, after the exercise, an assessment of the exercise planning and management is conducted. The exercise assessment addresses each exercise objective and provides responses for the following:

- Was the objective(s) met?
- If yes, what were the results?
- If no, what changes are necessary to achieve the objective(s)?

#### **A. DEBRIEFING**

At the conclusion of exercise play, an after-exercise briefing is held summarizing the key events of the exercise. The EPA Exercise Director determines the structure of the after-exercise briefing and the number of organizations that will speak. Generally, all Chief Functional Area Controllers and chief players from the major participating organizations provide a briefing. The decision of who and how many personnel attend the after-exercise briefing will be based on the size of the facility. The following is a suggested agenda for the briefing.

- Opening remarks (provided by EPA and State or local exercise directors).
- EPA Chief Exercise Planner synopsis of the exercise purpose and objectives.
- Chief Functional Area Controllers brief for 5 minutes each.
- Remarks by the chief players from the major participating organizations.

#### **B. SITE CLEANUP**

A team is identified during the planning for the exercise to ensure all support materials are returned to the owner and the site is restored to its original condition. The team should consist of representatives from EPA, State, and local governments and the supporting contractor.

#### **C. FOLLOWUP ACTIVITIES**

One of the most important and often neglected activity of an exercise is the followup activities. Emergency response organizations do not receive the full benefit of the exercise if followup actions are not accomplished to determine the status of the exercise recommendations. Suggested activities to accomplish followup activities include:

- Assigning tasks, a schedule, and responsibility for recommended improvement.
- Monitoring the progress of implementing recommended improvements.
- Testing improvements during the next exercise.
- Providing a copy of the AAR to all the EPA Regions.

**Table 12. Recommended Post-Exercise Administrative Actions Timeline**

ACTION	DATE REQUIRED	LENGTH OF TIME TO COMPLETE ACTIVITY
1. Collect the following:		1 day
a. Roster of participants from each organization	Last day of exercise	
b. Critique sheet from each participant	Last day of exercise	
2. All non-EPA equipment returned to the loaner	As soon as possible (ASAP)	2 days
3. All EPA equipment collected from the borrower	ASAP	2 days
4. Identification devices for the controllers, players, and observers collected	ASAP	1 day
5. Restore area where simulations were used	ASAP	1 to 2 days
6. Ensure all trash is collected and properly discarded	ASAP	1 day
7. Distribute letters of appreciation to all participating organizations and individuals	14 days after exercise	2 weeks
8. Develop and distribute first draft AAR	1 month after exercise	30 days
9. Conduct post-exercise meeting with exercise planners from R&IE, NAREL, and the EPA Region	1 month after exercise	2 days
9. Start followup activities	1 month after exercise	2 weeks
10. Develop Exercise Planning Lessons Learned Report	1 month after exercise	30 days
11. Receive comments on draft AAR	2 months after exercise	2 months
12. Publish final AAR	3 months after exercise	2 weeks

## **ANNEX A**

### **EXERCISE PLANNING POINTS OF CONTACT**

1. Assistant to the Secretary of Defense (Nuclear, Biological and Chemical, Defense Programs (ATSD(NBC))), ATTN: Defense Threat Reduction Agency (DTRA), 45045 Aviation Drive, Dulles International Airport, VA 20166-7517. Assistant to the Secretary of Defense (Atomic Energy) (ATSD(AE)) is responsible for all national-level policy issues and senior-level interface with DoD and other Federal agencies.
2. Assistant Secretary of Defense (Public Affairs) (ASD(PA)), ATTN: Office of the Assistant Secretary of Defense (Public Affairs) (OASD(PA)) (DPL), Room 2D757, The Pentagon, Washington, DC 20301-1400. OASD(PA) is responsible for overall PA planning and exercise and, specifically, development of Washington (DC)-area PA play.
3. Joint Staff (JS), J-3/J-38, Nuclear Operations Division, ATTN: J-3/J-38 (NOCCD), Room 3C935, The Pentagon, Washington, DC 20318-3000. This office is responsible for planning, coordination, and exercise of the National Military Command Center (NMCC).
4. Joint Exercise and Training Division (JETD), Operational Plans and Interoperability Directorate, the JS, ATTN: J-7 (JETD), Room 2B857, The Pentagon, Washington, DC 20318-7000. The JS will not only be responsible for internal notification, but also conference calls among the Federal agencies.
5. Armed Forces Radiobiology Research Institute (AFRRI), ATTN: Manpower and Reserve Affairs (MRA) and RSDR, 8901 Wisconsin Avenue, Bethesda, MD 20889. AFRRI designs all medical and site restoration exercise play and is a member of the Defense Nuclear Agency Advisory Team (DNAAT).
6. Director of Military Support (DOMS), HQ, Department of the Army (DA), Office of the Deputy Chief of Staff for Operations and Plans, ATTN: Ordnance Delivery Schedule (ODS) Washington, DC 20310-0400. The U.S. Army (USA) representative is responsible for notification of USA units and elements that will be involved in the exercise.
7. Headquarters, Department of the U.S. Air Force - (HQ USAF), ATTN: X000, Room BD927, The Pentagon, Washington, DC 20330-1480. HQ USAF is responsible for the coordination with USAF units involved in the exercise.
8. Department of the Navy (DON), Office of the Chief of Naval Operations, ATTN: Naval Operations (OPNAV)-111, The Pentagon, Washington, DC 20350-2000. They are responsible for notification of all U.S. Navy units involved in the exercise.

9. U.S. Department of Agriculture (USDA), Food Safety and Inspection Service/Office of Field Operation, Emergency Programs Staff, West End Court, Room 218, Washington, DC 20250-3700. USDA is responsible for assisting State and local governments to develop agricultural protective measures and damage assessments, procurement of emergency food programs, and ensuring meat and poultry products are safe for consumption.
10. Department of Energy (DOE), GTN, NN-61 and DP-23, 19901 Germantown Road, Germantown, MD 20874. DOE DP-23 is responsible for the overall DOE planning and utilization of radiological response assets.
11. Department of Energy, Albuquerque Operations Office (DOE/AL), Weapons Program Division, Accident Response Group (ARG) Program Manager, P.O. Box 5400, Albuquerque, NM 87185. DOE\AL is responsible for notification of the weapons laboratories and the Atmospheric Release Advisory Capability (ARAC). DOE\AL will establish a single POC for the weapons laboratories and ARAC (Sandia National Laboratories, Los Alamos Laboratories, and Lawrence Livermore National Laboratories) for the exercise.
12. Department of Health and Human Services (HHS), Office of Emergency Preparedness, Twinbrook Building, Rockville, MD 20858. HHS assists with the assessment, preservation, and protection of human health and helps ensure the availability of essential human services including medical care, food, emergency shelter, and clothing. The Food and Drug Administration (FDA), Public Health Service (PHS), and Center for Disease Control and Prevention (CDC) are components of HHS.
13. Department of the Interior (DOI), Office of Environmental Affairs, ATTN: MIB-2340, 1849 C Street, NE, Washington, DC 20240. Coordinates emergency response planning for Interior-managed Federal park and recreation areas.
14. Department of State (DOS), Bureau of Diplomatic Security, Emergency Plans and Exercises Division, U.S. Department of State Crisis Management Exercise (DS/EPE/CME), ATTN: DS/EPE/CME, c/o 5th floor, SA-10, Washington, DC 20550-7310. This branch is responsible, in conjunction with the theater representatives, to make contact with the Embassy and eventually the host government POCs and provides exercise planning support. The Political/Military Affairs Office provides policy interface between the military and DOS.
15. Department of Transportation (DOT), Office of Emergency Transportation, Washington, DC 20590. DOT coordinates assistance to State and local governments when civil transportation technical or logistical resources are insufficient to handle requirements created by an emergency.

16. EPA, ATTN: ORIA, 401 M Street, SW, Washington, DC 20460. EPA is responsible for determination of any Protective Action Guidelines and will assume intermediate and long-term off-site radiation monitoring activities from DOE following immediate emergency crisis response.
17. FEMA, Response Planning and Exercise Branch 500 C Street, S, #512, Washington, DC 20474. With DoD and DOE, a primary nuclear weapon accident planner, FEMA provides overall coordination and planning with other Federal agencies, initiates Federal notification, and has primary responsibility under the Stafford Act.



## **ANNEX B**

### **ABBREVIATIONS AND ACRONYMS**

AAR	After-Action Report
AEC	Atomic Energy Commission
AFRRI	Armed Forces Radiobiology Research Institute
Anti-Cs	Anti-contamination gear
ARAC	Atmospheric Release Advisory Capability
ARG	Accident Response Group
ASAP	As soon as possible
ASD(PA)	Assistant Secretary of Defense (Public Affairs)
ATSD(AE)	Assistant to the Secretary of Defense (Atomic Energy)
ATSD(NBC)	Assistant to the Secretary of Defense (Nuclear, Biological, and Chemical Defense Programs)
CDC	Centers for Disease Control and Prevention
CEP	Chief Exercise Planner
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CP	Command Post
CPX	Command Post Exercise
CRMER	Center for Risk Modeling and Emergency Response (ORIA)
DA	Department of the Army
DNAAT	Defense Nuclear Agency Advisory Team
DoD	Department of Defense
DOE	Department of Energy
DOE/AL	Department of Energy/Albuquerque Operations Office
DOI	Department of the Interior
DOMS	Director of Military Support
DON	Department of the Navy
DOS	Department of State
DOT	Department of Transportation
DTRA	Defense Threat Reduction Agency
DUSD(P)/EP	Deputy Under Secretary of Defense (Policy)/Emergency Planning
EIS	Environmental Impact Statement
ENDEX	End of exercise
EO	Executive Order
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
ERT	Environmental Response Team/Emergency Response Team

ESF	Emergency Support Function
EXPLAN	Exercise Plan
fax	Facsimile
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency
FRERP	Federal Radiological Emergency Response Plan
FRMAC	Federal Radiological Monitoring and Assessment Center
FRP	Federal Response Plan
FTX	Field Training Exercise
FX	Field Exercise
HAZMAT	Hazardous materials
HHS	Department of Health and Human Services
HQ/HQs	Headquarters
ICC	Initial Concept Conference
ICP	Incident Command Post
IPC	Initial Planning Conference
JCP	Joint Command Post
JETD	Joint Exercise and Training Division
JHEC	Joint Hazards Evaluation Center
JIC	Joint Information Center
JMEXS	Joint Master Exercise Schedule
JOC	Joint Operations Center
JS	Joint Staff
LFA	Lead Federal Agency
MCC	Master Control Cell
MOU	Memorandum of Understanding
MRA	Manpower and Reserve Affairs
MSC	Media Simulation Cell
NAREL	National Air and Radiation Environmental Laboratory (ORIA)
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NLT	No(t) later than
NMCC	National Military Command Center
NRC	Nuclear Regulatory Commission
NRT	National Oil and Hazardous Substances Response Team
OAR	Office of Air and Radiation
OASD(PA)	Office of the Assistant Secretary of Defense (Public Affairs)
ODS	Ordnance Delivery Schedule

OPA	Oil Pollution Act
OPNAV	Naval Operations
ORIA	Office of Radiation and Indoor Air
OSC	On-Scene Coordinator
OSD	Office of the Secretary of Defense
PA	Public Affairs
PAG	Protective Actions Guide
PAO	Public Affairs Office(r)
PHS	Public Health Service
POC	Point of contact
PROFLOW	Procedural Flow Synopsis
R&IE	Radiation and Indoor Environments National Laboratory
RERT	Radiological Emergency Response Team (ORIA)
RFP	Request for Proposal
RPD	Radiation Protection Division
RRPM	Regional Radiation Program Manager
SARA	Superfund Amendments and Reauthorization Act
SCCC	Simulation Cell Chief Controller
SOP	Standard Operating Procedures
SOW	Statement of Work
SRWG	Site Restoration Working Group
STARTEX	Start of exercise
SWG	Scenario Working Group
TTX	Tabletop Exercise
USA	U.S. Army
USAF	U.S. Air Force
USDA	U.S. Department of Agriculture
VIP	Very Important Person

