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See DC-GDL01 for guidance

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Drill and Exercise Manual

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Emergency Planning Services Department Instruction

Drill and Exercise Manual

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Emergency Planning Services Department Instruction

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1. PURPOSE

1.1 Objective

This manual provides guidelines for the implementation of the Millstone Drill and Exercise Program.

1.2 Applicability

1.2.1 This manual includes information associated with drill and exercise planning, scenario development, participant preparations, implementation, evaluation, critiques, reports, and comment disposition and tracking.

1.2.2 Not all steps of this instruction will be applicable for every drill or exercise. However, all steps should be reviewed for each drill or exercise to preclude omission of needed actions.

1.3 Supporting Documents

1.3.1 10 CFR 50.47(b) and 10 CFR 50, Appendix E

1.3.2 NUREG-0654/FEMA-REP-1, Rev. 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness for Nuclear Power Plants, November 1980, and SUPP. 1, Criteria for Utility Off-site Planning and Preparedness, September 1988.

1.3.3 NRC Inspection Procedure 71114, Reactor Safety - Emergency Preparedness.

1.3.4 NRC Inspection Procedure 71151, Performance Indicator Verification.

1.3.5 NEI 99-02, Regulatory Assessment Performance Indicator Guideline.

1.3.6 FEMA-REP-14, Radiological Emergency Preparedness Exercise Manual, September 1991.

1.3.7 FEMA-REP-15, REP Exercise Evaluation Methodology, September 1991.

1.3.8 State of Connecticut Radiological Emergency Response Plan.

1.3.9 State of Rhode Island Radiological Emergency Response Plan.

1.4 Discussion

- 1.4.1 The drill and exercise program described in this manual is required by the regulatory process governing the licensing of nuclear power plants. The Federal Emergency Management Agency (FEMA) and the Nuclear Regulatory Commission (NRC) cooperate to ensure that adequate emergency response capabilities exist, both on-site and off-site, for every nuclear power plant. Federal regulations and guidance material specify requirements and the roles of FEMA and the NRC in administering them.
- 1.4.2 A licensee's requirements for conducting drills and exercises are stated in 10 CFR 50.47(b) and 10 CFR 50, Appendix E. Additionally, regulatory guidance is contained in NUREG 0654/FEMA-REP-1, Rev. 1. The NRC evaluates the effectiveness of a licensee's program in accordance with Inspection Procedures.
- 1.4.3 Under 44 CFR 350 and NUREG 0654, Section N, it is the responsibility of State and Local governments to conduct joint drills and exercises to test their radiological emergency preparedness plans as a condition of initial and continued FEMA approval of those plans. Guidance for the development of exercises is addressed in: FEMA-REP-15, "Radiological Emergency Preparedness Exercise Evaluation Methodology," and FEMA-REP-14, "Radiological Emergency Preparedness Exercise Manual."
- 1.4.4 While this manual primarily concerns itself with the requirements related to drills and exercises conducted by Millstone, it also describes actions needed for the effective preparation and implementation of joint drills and exercises. As requested, Millstone will assist the States with maintenance of their 6-year exercise objective demonstration plan.

2. INSTRUCTIONS

2.1 **Scheduling of Drills and Exercises**

Emergency Planning is responsible for developing, approving, and issuing the Drill Schedule for the year. It is critical that the drill schedule be approved and issued as early in the first quarter of the year as possible (or preferably in the fourth quarter of the previous year) to allow the Station and SERO sufficient time to reserve applicable dates. The following section provides guidelines to be used in the development, approval, and issuance of the drill schedule.

- 2.1.1 In general, the selection of dates for drills and exercises controls the development and milestone dates. There is a six-year period that establishes a cycle where all performance objectives must be successfully demonstrated at least once. The objectives were derived from the planning standard criteria contained in NUREG-0654.
- 2.1.2 The following items should be considered in development of a draft drill and exercise schedule:
 - a. A review of the list of recurring drill and exercise requirements (Attachment 5).
 - b. A review of the six year objective cycle matrix and objective demonstration requirements.
 - c. Desires of the state and local government's to participate in drills.
 - d. Any additional drills that have been identified by the Process Owner, Emergency Planning on an as-needed basis.
 - e. Scheduled outage and maintenance activities - check with Work Management.
 - f. Simulator availability (including time for scenario development).
 - g. Unscheduled activities - check with key managers.
 - h. Station initiatives - check with Millstone senior management.
 - i. Plant personnel training schedules.
 - j. School vacations.
 - k. State/Federal/Religious holidays.
 - l. National/State/Local event days.

2.1.3 The Drill and Exercise Manager shall determine the scope of the drills and exercises based on the following items:

- a. The scope of drills should be designed to practice, demonstrate or test one or more elements of the Emergency Plan. Emphasis will be on the effectiveness of personnel and procedures and actual use of emergency facilities and equipment.
- b. Drills and exercises should be developed to provide an opportunity to demonstrate implementation of corrective actions in response to previous drill or exercise deficiencies, where appropriate.
- c. State, local, and Federal regulatory and drill requirements to be satisfied.
- d. Partial participation exercises should place emphasis on realistic scenarios that do not require a significant release of radioactivity to the off-site environs.
- e. Some scenarios should be developed to provide the operating staff the opportunity to diagnose and correct problems.
- f. Periodic individual facility or response area drills should be conducted to provide a focused review/evaluation on a specific facility or subject area.

2.1.4 The annual Drill And Exercise Schedule is to be reviewed and approved by the Process Owner, Emergency Planning. Verification should be made that key departments (i.e., Operations, Operator Training, Work Planning, etc.) were included in the review process for the dates selected. It is critical to ensure Simulator dates have been reviewed/assigned for scheduled drills by Operator Training.

2.1.5 Once approved, the Annual Drill and Exercise Schedule will be:

- a. Disseminated to station and SERO personnel.
- b. Provided to local and State authorities with an invitation to participate in applicable drills as they desire.

2.2 Periodic Reviews and Assessments

2.2.1 Annually, the Six-Year Objective Cycle matrix (maintained under separate file) is updated to reflect the date on which successful completion of each SERO performance objective occurred during a particular year.

2.2.2 Demonstration of exercise or drill objectives scheduled for evaluation in accordance with the 6 year objective cycle plan may be satisfied by the effective response and documentation of on-site and/or off-site staff to an actual emergency. Credit shall be given for a particular objective when the following provisions of that objective are met in response to an actual emergency:

- a. The emergency required a prompt and timely response and mobilization of key SERO staff responsible for the implementation of RERP emergency functions.
- b. The emergency resulted in the establishment of communications among responding organizations.
- c. The following documentation, describing the level of response and involvement of key SERO responders to the emergency, is available:
 - Type of emergency;
 - Arrival times of responders & period of response;
 - Communications logs;
 - Emergency decisions made and implemented;
 - Emergency plan resources used; and
 - A complete list of staff involved.
- d. An actual emergency event can be credited provided that the recorded response meets required drill or exercise objective criteria.

2.3 Drill and Exercise Schedule Modifications

- 2.3.1 Modifications to the drill and exercise schedule are to be reviewed and approved by the Process Owner, Emergency Planning.
- 2.3.2 The Drill/Exercise Manager, in coordination with the EPSD Team Leads, will address any required activities associated with modifications to approved drill and exercise schedule. Activities could include development of scenario data, modifications to scenario data, rescheduling/notification to participants, and rescheduling/notification of applicable federal, state, or local agencies.
 - a. If the modification involves a Federally evaluated Drill or Exercise, notification is to be made to Regulatory Affairs as soon as the change is approved.
- 2.3.3 Once approved, the modified schedule must be:
 - a. Redistributed to Station and SERO personnel.
 - b. Provided to local and State authorities with an invitation to participate in applicable drills as they desire.
- 2.3.4 The Drill/Exercise Manager shall ensure that any follow-up or documentation actions associated with canceled drills are completed as warranted by the timing of the cancellation.

2.4 Scenario Package Development

The Onsite Team Lead will designate a Drill/Exercise Manager for each scheduled event. The Drill/Exercise Manager will direct the preparation of a scenario package for the drill or exercise.

2.4.1 Observe the following guidance whenever possible:

- a. Review previous drill and exercise reports to determine the extent of play required to support both the onsite and off-site objective demonstration plans.
- b. Review six year objective cycle matrix.
- c. Minimize simulated interfaces and organizations.
- d. When all objectives and extent of play have been finalized, commence detailed scenario preparation.
- e. Scenario writers should have detailed knowledge of the area for which they are preparing the scenario material.
- f. Scenario writers for operational and radiological data need to ensure the time-steps used for handouts are consistent and/or match with the time key events occur in the scenario.

2.4.2 Develop scenario package sections in accordance with the outline described in Attachment 7 and tasks listed in Attachment 8. Scenario packages may be edited to delete unnecessary sections or information.

2.4.3 The Drill/Exercise Manager will interface with onsite and off-site departments to:

- a. Obtain resources needed for scenario development.
- b. Conduct meetings to identify work tasks and completion dates, further clarify extent of play, define work task responsibilities between the various organizations, or resolve any conflict in drill and exercise implementation policies between the organizations.

2.4.4 A project schedule will be completed by the Drill/Exercise Manager, and reviewed and approved by the Process Owner, Emergency Planning. The following guidelines should be used in developing a project schedule:

- a. Scenario development needs to start at least 6 months in advance of a scheduled exercise date to ensure sufficient time for reviews and submittals.
- b. It is critical to finalize the objectives, extent of play, and drill/exercise needs of the State (OEM/DEP) as early in the process as possible. This information is a key piece of the basis needed for scenario package development.

- c. State agencies (OEM/DEP) require a minimum of 2 weeks to review the final draft scenario and provide comments.
- d. Refer to Attachment 3, Recommended Schedule Guidelines for Training Drill Scenario Development and Attachment 4, Recommended Schedule Guidelines for Exercise Scenario Development for suggested milestones for developing training drill and exercise scenarios.
- e. The radiological data in the scenario requires the most time to develop. RES is assigned the responsibility for review and approval of radiological data. The following guidelines apply to development of radiological data:
 - 1) RES needs approximately 10 working days per scenario to complete all radiological data.
 - 2) RES scenario writers need to be included in Simulator sessions conducted to develop/validate sequence of events.
 - 3) Radiological data should be the last piece of the scenario developed because it is dependent on information contained in numerous other sections.

2.4.5 The appointed Drill/Exercise Manager directs development of scenario package sections in accordance with the approved project schedule. These activities will typically be conducted in the following manner:

- a. Establish the Drill or Exercise Project Team(s) with applicable representatives from Station organizations (including State personnel for off-site scenarios as needed).
- b. Develop a draft of the proposed scenario timeline. The timeline should meet the needs of both the onsite and offsite player organizations.
- c. Assign appropriate personnel for development of scenario package sections.
- d. Following completion of development activities, the draft scenario package will be assembled and distributed to selected team members for final comment.
- e. Obtain and resolve final scenario package comments.

2.4.6 The Drill/Exercise Manager is responsible for obtaining required approvals of scenario packages.

2.4.7 The Drill/Exercise Manager will coordinate distribution of the exercise scenario. Confidentiality requirements for exercise scenarios will be maintained as directed by the Exercise Manager.

2.5 Drill And Exercise Preparation

Attachment 8 provides a generic action list for specific onsite and offsite drill/exercise activities. Since each drill or exercise is unique, the Drill/Exercise Manager will use the generic action list to create a detailed drill/exercise activity schedule.

2.5.1 Items to be considered for drill/exercise preparation include:

- a. Coordinate required State and Federal reviews and approvals as necessary. Ensure enough lead time is included to meet both federal requirements and development/review time for the State.
- b. Verify Simulator is reserved for the full duration of the scheduled drill/exercise.
- c. Ensure drill date has been placed in appropriate station schedules and that a Station Notice is prepared and distributed.
- d. Provide specific requests for drill or exercise preparation support to appropriate State personnel. This may include assistance with:
 - 1) assignment and notification of personnel (by position),
 - 2) arrangements for use of designated facilities,
 - 3) dissemination of event reporting times and expected duration, and
 - 4) provisions for any additional supporting resources.
- e. Evaluate need to include assigned Controllers to simulate NRC Site Response Team. Recommendations on frequency include:
 - 1) Consider assigning a team of Controllers to one designated emergency response facility per drill to simulate NRC Site Response Team.
 - 2) Assign Controllers to simulate full NRC Site Response Team participation in at least one drill during the six year objective cycle.
- f. Conduct a pre-drill briefing to instruct controllers and evaluators on their assignments and responsibilities. Ensure briefing materials include the following:
 - 1) Safety Guidelines.
 - 2) Assignments and Responsibilities.
 - 3) For Performance Indicator (PI) designated drills/exercises, briefing should address expected paperwork and acceptance criteria (as identified in EPDI-18) for assigned PI activities.

- 4) Sequence of Events.
 - 5) Directions for stopping/terminating drill/exercise.
 - 6) Provisions for continuation of drill and inject of data should drill run past scheduled termination time.
 - 7) Expectations on post-drill activities and deliverables.
- g. Conduct a pre-drill briefing with the Simulator Operations crew to discuss extent of play and communications expectations with respect to Simulator.
 - h. Identify any needed control cells.
 - 1) Coordinate with state OEM/DEP as needed to ensure there is sufficient control cell activity to support the state if they are participating.
 - 2) Use of the Connecticut School of Broadcasting for Joint Media Center Media Relations/Rumor Control activities should be considered.
 - 3) For control cells simulating the NRC, refer to IN 98-08 as a basis for sample questions to be asked.
 - i. For drills or exercises that involve ENRS, refer to Attachment 10 and ensure the checklist is completed.
 - j. Provide drill scenario information to appropriate State representatives.
 - 1) State personnel will be responsible for the notification of State and local participants.
 - 2) If off-site participation appears to be a problem, the Drill/Exercise Manager should seek further guidance from the Process Owner, Emergency Planning.
 - k. For evaluated drills and exercises ensure the security of the scenario is maintained by all approved individuals (see Section 2.6 for further details).
 - l. Request determination from PO, EPSD or EPSD Onsite Team Lead as to whether or not the drill or exercise is to be counted toward the PIs for EPSD. If the drill is to be counted toward the PIs, a memo to file is needed identifying this fact.

2.6 Exercise Scenario Security

This section provides instruction for the physical security of exercise scenarios. This security is required to prevent unauthorized disclosure of the scenario prior to the conduct of the exercise for which it is intended.

2.6.1 Authorized Personnel For Scenario Preparation

The following personnel are authorized access to exercise scenario material provided they are not assigned as a player in that exercise. In those cases, the authorized individual should designate someone else to assume his or her responsibilities.

- a. Process Owner, Emergency Planning
- b. Appointed Drill/Exercise Manager
- c. Appointed scenario development team members

As appropriate to preparation requirements, these individuals may designate other personnel who should have access to scenario material, e.g., Administrative Support Staff, etc. To the degree possible, exercise scenario preparation should be performed within Emergency Planning Services offices. Work areas should be designated and/or approved by the Drill/Exercise Manager.

The Drill/Exercise Manager will determine security/confidentiality measures to be taken for exercise scenarios. All exercise scenario documents (or their containers or cover sheets) will carry a notice to the effect that the material is "scenario-related" (regulatory submittal) or "confidential" (in-house).

2.6.2 Scenario Routing And Transmittals

Exercise scenario material shall be either hand-delivered or mailed through a traceable delivery system (e.g., US Postal Service Registered Mail, overnight delivery service, etc.). Scenario material shall be transmitted in a container (e.g., envelope, binder, box, etc.) that identifies the contents as "scenario information" or "confidential."

Exercise scenarios are subject to technical, management, regulatory, state, and independent reviews and approvals. In some instances, the scenario will leave the direct control of Millstone personnel. In all cases, reviewers and approvers shall be notified either verbally or in writing that the material they are examining is confidential and not to be disclosed to unauthorized personnel.

2.6.3 Reporting Violations

The unauthorized disclosure of exercise scenario-related information shall be reported to the Drill/Exercise Manager who will determine the impact of the disclosure on exercise confidentiality, and recommend appropriate corrective actions to the Process Owner, EPSD.

A compromise of the exercise scenario shall be reported to the NRC and/or FEMA. Examples of a compromise are:

- a. the scenario is known to multiple players and the removal of those players or the use of other participants is not feasible, or
- b. parties not authorized by Millstone are in possession of the scenario.

The Process Owner, EPSD will coordinate subsequent corrective actions with these agencies. A Condition Report (CR) shall be generated in accordance with MP-16, "Corrective Action Program."

2.7 Drill And Exercise Evaluation

This section describes requirements for evaluating drills and exercises. Evaluations are based on comments and observations from drill and exercise participants.

2.7.1 Critiques

Following termination of a drill, a critique is conducted to identify strengths, deficiencies, weaknesses, and areas for improvement. Players and Controllers will be given time to complete the Player/Controller Comment Form (Attachment 11) with any issues that were identified. Players are to be allowed to critique first, allowing them the opportunity to self-identify any issues. Player and controller comments shall be solicited during critiques and the Facility Lead Controller shall ensure that all comments are documented.

Controllers should attempt to disposition and document resolution on as many comments as possible, but avoid commitments that are beyond the authority of the Controller organization. Controllers are to complete assigned Performance Objective Criteria forms (maintained under separate file). The forms are then used as a basis for determining if objectives were satisfactorily met.

Facility Lead Controllers shall collect all player and controller-generated documents including critique comments, logs, attendance sheets, SERO Comment Forms, etc. for their facility and provide all original material to the Drill/Exercise Manager.

Drill and exercise critiques shall meet the requirements of 10 CFR 50.47(b)(14) and Appendix E to 10 CFR 50, Section F.2.g. To meet these requirements, each Lead Facility Controller shall request drill/exercise participants to discuss their observations and comments immediately following a drill/exercise. Players and Controllers should be encouraged to relate any strengths or issues to the applicable objectives selected for the drill/exercise. This information will then be reviewed and discussed by the Drill/Exercise Manager and lead controller staff to decide whether the selected objectives were demonstrated, demonstrated with issue or not demonstrated.

Upon completion of the evaluation of drill/exercise performance, critique comments will be binned in accordance with their level of severity and Condition Reports shall be generated. Separate CRs will be written for issues identified as "adverse to quality" and "areas for improvement." After the final drill in a series of drills (i.e., drills run concurrent w/LORT), identified areas for improvement may be consolidated and captured as a single condition report.

2.7.2 Drill/Exercise Reports

The Drill/Exercise Manager will prepare, or direct preparation of, a report concerning SERO performance for each drill or exercise. In addition to EPSD personnel, appropriate station personnel may be utilized to assist in the drill/exercise evaluation and associated report generation (e.g. evaluated exercise report). In general, these reports will document the drill date and participating SERO organizations, state any drill program requirements being satisfied (e.g., a radiological monitoring drill, an HP drill, etc.) and the overall outcome, contain a brief summary of the scenario, evaluate SERO performance against selected drill/exercise objectives, and discuss any major issues. These reports are used as the formal documentation for drill/exercise critiques. Drill reports dealing with off-site agency responses (e.g., State and local) may be prepared at the discretion of PO, EPSD. Drill report distribution will be determined by the PO, EPSD.

For Drills or Exercises designated as PI activities, the Drill/Exercise Manager should ensure the applicable PI data form (refer to EPDI-18) is completed. A summary of the results of the PI activities should be included in the report.

The drill reports will be used for providing feedback to the SERO and Management on the results of a particular drill/exercise and the status of the comments identified during it's conduct. A drill/exerciser report will be developed and issued within approximately 30 days of the date the drill/exercise was conducted. For drills conducted in series, the report will be developed and issued within approximately 30 days of date the last drill was conducted.

Additional vehicles for feedback to players, controllers, and management on the results of a drill or exercise, or the disposition of selected comments, may be determined by the PO, EPSD, as needed (e.g., Use of the 0800 morning meeting, Millstone Today articles, e-mail, SERO Bulletin Board messages, etc.).

2.8 Maintenance Of Records

All drill and exercise materials will be maintained in accordance with Emergency Planning Services Department instructions on document maintenance and storage.

2.9 Post-Drill 24/7 Criteria

2.9.1 The primary responsibility for ensuring that each emergency facility is 24/7 lies with the emergency responders located in that facility. While it is not intended that they provide replacement materials, it is expected that they will:

- a. Return their specific work area to its pre-drill/event conditions (general housekeeping).
- b. Identify missing or out-of-stock plans, procedures and other documents utilized in that position.

- c. Identify shortages of administrative supplies and consumables utilized in that position.
- d. Identify inoperative or improperly operating equipment utilized in that position.

Drill controllers, through briefings and debriefings, should encourage "player" restoration of facilities. Deficiencies identified as noted above should be brought to the attention of the Drill/Exercise Manager.

When a particular deficiency is noted that does not fall clearly under the actions of this section, the Process Owner, EPSD shall make the initial determination as to urgency of correcting that item and ensure it is corrected in accordance with the Emergency Planning Services Department Facility Manual (EPDI-06).

2.9.2 Procedure Checklist, Player Packets, Maps And Forms

Wherever practical, separate quantities of applicable documentation should be provided and designated as "Drill Use Only" and "Emergency Use Only."

Documentation designated as "Emergency Use Only" should be sealed or otherwise distinguished to preclude non-emergency use.

"Drill Use Only" materials should be provided by Emergency Planning Services staff and delivered and returned by the appropriate drill controller.

2.9.3 Equipment

Clocks, computers, etc., which are set to support a drill scenario shall be restored to real time upon completion of the drill by the players or controllers in the applicable facility.

Equipment noted to be inoperative or not operating as expected shall be brought to the attention of the Emergency Planning Services Department and restored in accordance with the Emergency Planning Services Department Facilities Manual (EPDI-06) and EPAP 1.15.

3. SUMMARY OF CHANGES

- Numerous editorial and format changes were made.
- Section 1.3, added reference to 10CFR50.47b and App.E and updated NRC Inspection Procedure References.
- Step 2.1.2, deleted item i because it did not apply to this section and item k because it was redundant with item n.
- Step 2.4.1, Deleted item b because it did not apply to this step.
- Added to new attachments with scenario developing guidelines identifying milestone dates to be used for project scheduling for training drills and exercises.
- Step 2.4.5(a), Deleted references to specific Station organizations for use in scenario project team because the team is formed based on selected objectives and scenario content needs and changes drill to drill.
- Deleted step 2.5.1 because it was redundant with step 2.4.4.b.
- Added step 2.5.1.f.3 relating to covering PI paperwork and acceptance criteria with Controllers during pre-drill brief.
- Added step 2.5.1.g to ensure conduct of a pre-drill brief with the Operations Crew occurs covering extent of play items and communications expectations.
- Deleted Section 2.6.7, “Contracted Preparations Services” because it is covered under separate section with respect to exercise scenario development requirements.
- Revised Section 2.7 to better define the critique and comment resolution process and add a time requirement for issuance of a report for drills/exercises within 30 days.
- Deleted Section 2.9, “Unplanned Outages/Events Affecting Drills/Exercises” because it was redundant with Section 2.3 and how changes to drill/exercise dates should be approached.
- Deleted definition for “Controller Debriefing” from Attachment 1 because debriefs are not conducted critiques are.
- Deleted footnote 5 from Attachment 3 because it was no longer applicable.
- Deleted footnote 7 from Attachment 3 because it was no longer applicable.
- Deleted/added activities to Attachment 6 to reflect current process for conduct of Drills/Exercises.

- Edited/reformatted Attachment 9, "Player/Controller Comment From."

Attachment 1

Definitions and Abbreviations

(Sheet 1 of 2)

Definitions

1. Action Item Database (AITTS): The system used to track open action items, assign persons to take corrective actions, and monitor progress until the close-out of the item is complete.
2. Combined Functional Drill (CFD): Any drill which is similar in scope and complexity to an exercise.
3. Connecticut Department of Environmental Protection (DEP): The lead State of Connecticut agency responsible for coordinating and directing responses to radiological activities.
4. Connecticut Office of Emergency Management (OEM): The lead State of Connecticut agency responsible for coordinating and directing responses to disasters and emergencies.
5. Controller: Person responsible for facilitating the progress of a drill or exercise, observing player performance, and assessing whether objectives have been demonstrated.
6. Critique: A session for players, controllers, evaluators and observers conducted by the Facility Lead Controller after a drill or exercise to review strengths, weaknesses, areas for improvement, and summarize the results of the event.
7. Drill: A supervised instruction period conducted to improve the emergency responders' performance and proficiency.
8. Evaluator: Individual assigned to a drill or exercise whose function is to assess the performance of players. Controllers often perform the evaluator functions.
9. Exercise: An evaluated event that tests the integrated capability of emergency response organizations, plans, and procedures with no coaching or input from Controllers.
10. Facility Lead Controller: A person responsible for a group of controllers at a specific facility or location.

Attachment 1

Definitions and Abbreviations

(Sheet 2 of 2)

12. Mini-scenario: A scenario developed for a group of players or a specific functional area contained within the overall drill or exercise scenario to provide added player activities or details related to the overall scenario.
13. Observer: A person assigned to a drill or exercise whose function is to witness drill action.
14. Participant: An individual officially involved with a drill or exercise as a player, controller or evaluator.
15. Player: An emergency responder who performs assigned functions during a drill and exercise.
16. Rhode Island Emergency Management Agency (RIEMA): The lead State of Rhode Island agency responsible for coordinating and directing responses to disasters and emergencies.
17. Scenario Package: The primary implementing document for a drill or exercise which contains controller-related instructions, a description of the accident scenario, and required data and information.
18. Table Top: A small scale drill conducted with a select group of emergency responders to discuss and/or demonstrate a specific set of objectives.
19. Visitor: An individual authorized to attend a drill or exercise without player, controller or evaluator responsibilities.
20. Walk-through: Supervised instruction where individuals gain hands-on experience and knowledge in the use of emergency procedures, equipment and facilities through on-the-spot correction of performance.

Abbreviations

None

Attachment 2 Responsibilities

(Sheet 1 of 2)

1. Process Owner, EPSD
 - A. Provides overall direction for the Emergency Preparedness Drill and Exercise Program.
 - B. Coordinates development of drill and exercise schedules.
 - C. Coordinates major drill or exercise schedule changes and requests exemption with the appropriate federal agencies.
 - D. Appoints a Drill/Exercise Manager or assumes this role dependent upon the event.
 - E. Reviews and approves on-site drill and exercise objectives and extent of play.
 - F. Develops strategies to ensure that both on-site and off-site emergency response organizations participate in scheduled drills and exercises.
 - G. Reviews and approves on-site drill and exercise scenario packages.
 - H. Directs the preparation and dissemination of on-site drill and exercise reports.
 - I. Manages on-site drill and exercise comment resolution.
 - J. Acts as Company Liaison in dealing with off-site drill and exercise comment resolution.
 - K. Coordinates actions required to deal with the effects of an unplanned outage or other event which requires the cancellation or reschedule of a major drill or exercise.
 - L. Reports scenario compromises to the NRC and/or FEMA as appropriate. Coordinates follow-up and corrective actions with Federal agencies in the event that an exercise scenario has been compromised.

Attachment 2 Responsibilities

(Sheet 2 of 2)

2. EPS Department Staff

- A. Prepares drill and exercise scenarios.
- B. Interfaces with State and Federal agencies to resolve scenario comments.
- C. Schedules and notifies on-site players and controllers for drill and exercise participation.
- D. Ensures exercise scenario security.
- E. Prepares the on-site controller organization for drill/exercise evaluation roles.
- F. Assists the State(s) in the recruitment of an off-site controller organization.
- G. Coordinates the submittal of the approved scenario to FEMA and NRC, as required.
- H. Directs the development of controller materials; coordinates reproduction; ensures proper dissemination; and conducts controller training.
- I. Maintains on-site player/controller drill documentation.
- J. Implements drills and exercises.
- K. Evaluates drill and exercise performances, and prepares objective evaluation reports for management review.
- L. Coordinates disposition of drill and exercise comments.
- M. Coordinates player feedback, as directed.

3. Drill/Exercise Manager

- A. Overall responsibility for the execution and evaluation of a drill/exercise.
- B. Directs preparation for, and implementation of, the drill or exercise.
- C. Establishes the drill/exercise project team.
- D. Interfaces with Federal, State and local agencies to coordinate the development of off-site drill and exercise objectives and extent of play.
- E. Responsible for scheduling and planning project activities; monitoring progress; recording and reporting status; implementing corrective actions as necessary to ensure schedule integrity, until the project's objectives have been met.

Attachment 3

Recommended Schedule Guidelines for Training Drill Scenario Development

The following timeframes should be used as milestones for training drill scenario development scheduling. The timeframes are critical for development of scenarios allowing sufficient time for validation, review and approval.

- 70 Days - Kickoff/Start Development
- 60 Days - Objectives and extent of play approved (including State if participating); Simulator sessions scheduled
- 45 days - Initial Simulator Run complete; initial draft of Sections 1-5 complete
- 30 days - Initial draft of sections 6-7 complete
- 15 days - Final Simulator validation run complete; confirm all simulator information
- 13 days - Draft scenario complete (all sections); submit scenario to appropriate personnel for review and approval
- 7 days - All comments incorporated and scenario approved; provide to reproduction for copying

Attachment 4

Recommended Schedule Guidelines for Exercise Scenario Development

The following timeframes should be used for exercise scenario development scheduling. The timeframes are critical for development of evaluated exercise scenarios allowing sufficient time for validation, review and approval to meet federal submittal requirements. Although not recommended, there is some latitude to shorten the suggested timeframes based on ongoing activities for an off-year exercise due to the a lack of formal regulatory submittal requirements.

- 180 Days - Kickoff/Start Development
- 150 Days - Objectives, extent of play, drill/exercise needs finalized
- 120 days - Simulator Runs complete
- 100 days - Draft Scenario complete
- 90 days - For evaluated exercise submit objectives/extent of play; Provide Draft scenario to State for review
- 75 Days - State review complete and comments received
- 62 days - All comments incorporated and scenario approved
- 60 Days - For evaluated exercise scenario submitted to FEMA/NRC

Attachment 5 Reoccurring Drill and Exercise Requirements

(Sheet 1 of 2)

No.	Drill Title	Requirements	Freq ¹	References
D-1	EPZ Communications Drill	Conduct a communications drill with the state and local Warning Points within the plume EPZ. This drill shall include transmittal of information on the ENRS ² .	M	NUREG-0654, N.2.a
D-2	IPZ Communications Drill	Conduct a communications drill with Federal and State emergency response organizations within the ingestion pathway EPZ ² .	Q	NUREG-0654, N.2.a
D-3	Annual Communications Drill	Conduct a communications drill between the EOF, the state and local EOCs, and the Environmental Monitoring Teams. Communications between the CR, TSC and EOF shall also be tested ² .	A	NUREG-0654, N.2.a
D-4	HP Drill	Conduct a Health Physics drill, using simulated elevated airborne and liquid samples, to include response, monitoring, sampling and analysis activities.	S	NUREG-0654, N.2.e.(1)
D-5	PASS Drill	Conduct a Health Physics drill which involves actual elevated radiation levels and Post Accident Sample System (PASS) samples and analysis.	A	NUREG-0654, N.2.e.(2)
D-6	Environmental Drill	Conduct an environmental radiological monitoring drill involving on-site and off-site activities. These drills shall include collection and analysis of sample media and provisions for communicants and record keeping.	A	NUREG-0654, N.2.d
D-7	Medical Drill	Conduct a medical emergency drill involving a simulated contaminated individual which contains provisions for participation by local support services agencies.	A ³	NUREG-0654, N.2.c
D-8	Full Scale Drill	Conduct at least one drill involving a combination of some of the principle functional areas of the on-site emergency response capabilities annually ⁴ .	A	10CFR50, App. E IV.F.2.b
N/A	N/A	Scenarios should be varied such that all major elements are tested within a six-year period (refer to Attachment 5).	C	NUREG-0654, N.1.b

¹ M = monthly, Q = quarterly, S = semi-annual, A = annual, B = biennial, C = once a cycle (every 6 years).

² This drill shall also include the aspect of understanding the content of messages.

³ The off-site portions of the medical drill may be conducted once per calendar year.

⁴ Performance of a biennial NRC evaluated exercise satisfies the given year's annual requirement.

Note: Fire Drills shall be conducted in accordance with the Fire Protection Program per the FSAR

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Attachment 5 Reoccurring Drill and Exercise Requirements

(Sheet 2 of 2)

No.	Exercise Title	Requirements	Freq ¹	References
E-1	Biennial Exercise	Conduct an exercise that tests the integrated capability and a major portion of the basic elements of the Emergency Plan. The exercise shall simulate an emergency that results in an off-site radiological release which will require response by off-site response organizations. This exercise will involve at least partial participation by off-site authorities.	B	§50.47(b)(3)and(14) §50 App E IV.F.2, F.2.b NUREG-0654, C.2.a, G.4.b, N.1.a and b
E-2	Full Scale	Conduct an exercise involving full participation of the State of Connecticut	C	10CFR50, App. E, IV, F.2.c
E-3	Off-Hours	Commence an exercise between 1800-0400.	C	NUREG-0654, N.1.b
E-4	Different Seasons	Conduct exercises in various weather conditions (during different seasons).	C	NUREG-0654, N.1.b
E-5	Unannounced	Conduct an unannounced exercise (knowledge of the exact date is restricted to only non-participants with a need to know).	C	NUREG-0654, N.1.b
E-6	Ingestion Pathway	Conduct an Ingestion Pathway exercise.	C	§50, App. E Sect. IV, F.2.d FEMA GM IN-1 EPA-400-R-92-001, Ch 3

¹ M = monthly, Q = quarterly, S = semi-annual, A = annual, B = biennial, C = once in a cycle (every 6 years).

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Attachment 6

Federal Schedule Requirements

<u>Time in days</u>	<u>Activity</u>
90	State and licensee jointly develop and submit exercise objectives to FEMA and NRC Regional Offices.
75	FEMA and NRC Regional Offices complete reviews of objectives and establish extent of play agreements. A meeting with licensee, State and FEMA may be necessary.
60	State and licensee submit exercise scenario package to FEMA and NRC Regions for review. Exercise ground rules are established.
45	FEMA and NRC Regions contact or meet with State and licensee to discuss scenario review results. Agreed-upon changes or modifications shall be documented and distributed. Evaluators are assigned and confirmed.
30	Exercise logistics are arranged. FEMA and NRC Regions develop specific post-exercise activity schedule for debriefings and meetings with the State.
15	Final scenario adjustments are completed.
14	The exercise evaluator packet are prepared and distributed. The packet should at a minimum provide: <ol style="list-style-type: none">Portions of the State and local plans applicable to each assignment.List of all exercise evaluators and their assignments.A time line of events.Scenario summary.Scenario technical data applicable for each assignment.Past exercise findings, including reports and all outstanding/unmet objectives.Applicable controller messages and reference materials.Logistical information.Log forms/module(s) for taking notes.
1	All Federal observers, both NRC and FEMA, meet in the exercise area to finalize assignments and receive site specific evaluator training.
Exercise Day (ED)	The exercise is conducted. Evaluators hold exit interviews with participants at assigned locations. NRC holds exit interviews on-site.
ED+1	Evaluator debriefing meeting is conducted by the Regional Assistance Committee (RAC) Chairperson. Evaluators complete log forms/module(s) for review and approval by team leaders and FEMA.

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Time
in days **Activity**

- ED+2 RAC Chair initiates consultation process for deficiencies. Exercise Evaluation Methodologies (EEM) Evaluation Forms and Narrative Summaries completed and submitted to RAC Chairperson. RAC Chairperson conducts a participants' meeting. RAC Chairperson and the State(s) hold a public meeting.
- ED+10 Official notification of identified deficiencies through letter from FEMA Regional Director (RD) to State, NRC HQ and RAC, with information copy to licensee.
- ED+20 State acknowledges receipt of deficiency letter and proposes schedule of remedial actions, if required.
- ED+30 Draft FEMA summary exercise report is sent to FEMA HQ for review.
- ED+50 Summary exercise report provided by FEMA RD to States, NRC HQ, and RAC, with information copy to licensee.
- ED+120 Draft exercise report provided by FEMA Region to State and RAC for review and comment.
- ED+190 Final exercise report issued.

Attachment 7

Scenario Package Outline Format

1.0 Objectives and Extent of Play

Objectives are determined using the six year objective plan. This plan is maintained under a separate file and is updated at least annually. Objectives and extent of play need to be developed concurrently with the State for drills involving their participation.

In addition to the objectives, this section contains information which will be used in conducting a given drill or exercise. It will establish any play limitations and simulations (e.g., control cells, simulated displays, etc.).

2.0 Controller Instructions

This information is adapted to meet the needs of a specific drill or exercise. Also included in this section are controller assignments and controller telephone lists. This section describes the Control Cell and out of sequence mini-scenario controller actions. Rules for visitors are also included in this section.

3.0 Sequence of Events

This section contains the details of the scenario sequence. Included in this section is a discussion of the initial conditions, simulator malfunctions to be inserted, cross reference to messages and mini-scenarios, and the expected times for each scenario event occurrence.

4.0 Organizational Response Timelines

This section contains a summary of the key scenario events and the expected time of occurrence.

5.0 Messages

This section contains command and contingency messages necessary to ensure that the correct information is provided to the players or to ensure that the scenario timeline remains valid if players fail to perform a required action during a specific time period.

6.0 Mini-Scenarios

Mini-scenarios are organized by response organizations and will reference any messages in Section 5.0 which support their implementation. Mini-scenarios can be recognized in the normal scenario sequence or can be run out of sequence.

7.0 Plant Parameters

This section includes relevant operational data.

8.0 Radiological Data

This section contains radiological, meteorological and radiochemistry data.

Attachment 8 Typical Drill/Exercise Tasks

ACTIVITY	ASSIGNED TO	DUE DATE	COMPLETE
Drill Manager Assigned			
Develop Project Schedule			
Develop project schedule			
Develop project organization/responsibilities.			
Ensure drill/exercise date is reflected on applicable station schedules			
Project Schedule Approved			
Acquire Development Team			
Obtain Resources from Lead Managers / Master Process Owners			
Determine NRC play requirements			
Develop specific work plan for key agencies			
Development Team Acquired			
Develop Team Assignments			
Customize team tasking assignments			
Develop Generic Sections 1 & 2 - ERO			
Brief Affected in-house groups on Drill Dates			
Reserve STATE EOC/JMC			
Reserve Simulator			
Schedule Briefing Rooms - SERO			
Develop plan detailing state role/responsibilities			
Conduct Kick-off Meeting			
Develop Objectives and Extent of Play			
Review Last On-site Exercise Inspection/Drill Reports			
Review On-site 6 year plan			
Develop Draft On-site Objectives/Extent Of Play			
Develop Draft Off-site Objectives/Extent Of Play			
Distribute proposals			
Reconcile Comments			
Issue Final Draft			
Scope and Objectives Approved			
Develop Scenario Time Line			
Meet With Operations and Nuclear Training Department developers			
Test Simulator Feasibility			
Meet again and revise as necessary			
Reconcile comments			
Scenario Time Line Approved (Station/State)			
Identify / Inform Participants			
Issue "To The Point" describing upcoming need for players/controllers			

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ACTIVITY	ASSIGNED TO	DUE DATE	COMPLETE
Issue Off-site Player/Controller Request Memo			
Notify Off-site Resource/Facility Providers (including CT School of Broadcasting)			
Notify Players - Onsite			
Notify Players - Off-site			
Notify Controllers - Onsite			
Notify Controllers - Off-site			
Reconcile Changes			
Notify Changed out personnel			
Participants Acquired / Notified			

Develop Scenario Package

Develop & implement scenario controls			
Develop Controller Manual - 3.1			
Develop Maintenance Mini-Scenarios			
Develop Meteorological Data			
Develop Chemistry / PASS Data			
Develop Source Term Data			
Develop Off-site Radiological Data			
Develop On-site Radiological Data			
Develop Drill Messages			
Develop Mini-Scenarios			
Establish scenario review committee			
Issue Package for review			
Reconcile Comments			
Scenario Package Approved			

Prepare Participants

Issue Player Instructions			
Print / Distribute Manuals			
Reproduce/Assemble Packages			
Reproduce/Assemble Player/Controller Materials			
Plan / Conduct On-site Briefing & Training			
Issue "To The Point" notice			
Brief NRC Resident			
Controllers Trained / Briefed			
Conduct pre-drill briefing w/Simulator Operations Crew to cover extent of play & communications expectations			

Drill Readiness

Coordinate Media Notification w/Corp Comm			
Switch over OFIS feed to applicable simulator			
Install simulator phone templates			
Switch over simulator phone switches			
Clean out OFIS buffer			
Pre-position sample/KI props			

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ACTIVITY	ASSIGNED TO	DUE DATE	COMPLETE
Visitor list to Security			
Conduct Onsite Controllers Briefs			
Coordinate NRC Entrance Brief			
Schedule MP Security/Police Officer for Access Road			
Develop Player/Controller Phone Lists			
Ensure monitoring vehicles ready			
Conduct Off-site Controller Brief (including CT School of Broadcasting)			
Conduct Off-site Player Brief			
Good Neighbor Notifications			
FEMA Evaluator Briefing - CT			
FEMA Evaluator Briefing - RI			
Arrange NRC Training/workspace			
Catering Arrangements			
Perform ENRS Switchover			
Ensure Drill Readiness			

Post Event Facility Deactivation

Remove simulator phone templates			
Switch over simulator phone switches			
Ensure all catering supplies are removed from facilities			
Ensure monitoring vehicles are back in proper parking spots and fuel is at least ¾ full			
Ensure all facility lockers are locked			
Collect all logs and player documentation			
Remove phone and computer carts from simulator			
Restore facility procedures to 24/7 condition			
Contact Information Technology group to clean out manually entered OFIS screens			
Perform quarterly facility surveillance's in accordance with EPSD Facility Manual			

Prepare / Conduct Critiques

Develop critique presentation			
Debrief Players / Evaluators			
Compile Facility Comments			
Arrange for refreshments			
Present Critique To Management			
Reproduce Exercise Material for NRC/FEMA			
FEMA Public Meeting			
Conduct Critique			

Issue Drill/Exercise Report

Draft report based on Critique findings			
Obtain EPSD Management Approval of Final Report			
Issue Drill/Exercise Report			

Issue Drill Comments

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ACTIVITY	ASSIGNED TO	DUE DATE	COMPLETE
Compile All Drill Comments from Leads			
Issue to EPSD Management			
Hold Meeting to Disposition			
Modify comments			
Initiate CRs			

Acknowledge Participants

Compile "As Run Participants List"			
Print Certificates			
Develop Memos / Letters			
Distribute Memos & Certificates			
Participants Acknowledged			

File Documentation

Update Drill Participant Data Base			
Update Six Year Objective Cycle Matrix			
Send Scenario Package Records / Filing			
Send Attendance, Critique Memo and findings to Records / Filing			
Drill Documentation Filed			

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Attachment 12
ENRS Drill Checklist

Pre-Drill:

- 1) Test ENRS terminal & printer in proper simulator or Control Room 24 - 48 hours prior to drill.
- 2) Need to decide the targeted participants based on the scope of the drill:
 - A. SERO only
 - B. SERO & State & Towns
 - C. State & Towns
- 3) Need to complete IRF form ahead of time (including IRF#) and pick proper scenario. Most of the scenarios have a fax list attached to the scenario that will need to be reviewed.
- 4) Ensure the word DRILL appears a number of times within the IRF.
- 5) Any changes to the standard scenario's should be checked a day or two before the drill.

During Conduct of Drill:

- 1) The Shift Tech assigned to the drill/exercise shall always contact the on duty Shift Tech to advise when logging on & off of ENRS and leave a phone number where the drill Shift Tech can be reached.

Post-Drill:

- 1) The Shift Technician should clear any drill IRFs on the ENRS terminal.
- 2) Shift Technician is to log-off ENRS terminal.
- 3) The Shift Tech assigned to the drill/exercise shall always contact the on duty Shift Tech to advise when logging on and off of ENRS and leave a phone number where the drill Shift Tech can be reached.
- 4) If drill is not a planned scheduled activity (i.e., unannounced drill), the Unit 3 Shift Manager must approve conduct of the drill and use of ENRS.