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AUTOMATED RECORD MANAGEMENT
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A045

DRILLS AND EXERCISES

Revision Summary

- 1) Modified item 5.2 to identify specific drills conducted at Fermi 2.
- 2) Added statement to section 5.0 to indicate drills and exercises may be used for NRC Performance Indicators – RERP data collection.
- 3) Modified items in 5.11.4 to indicate failure to meet objectives may result in a rating of unsatisfactory.
- 4) Revised item 5.11.4.3 to better define Limited Objectives.
- 5) Modified item 5.11.5 to describe actions to be taken for a rating of unsatisfactory.
- 6) Revised item 6.1.2 to indicate the Supervisor, RERP will determine which drills will be used for NRC Performance Indicators – RERP data collection.
- 7) Added item 6.4.5 to ensure drill/exercise attendance is documented.
- 8) Added item 7.1.6 to facilitate a review of Attachment 5 by the Supervisor, RERP.
- 9) Deleted NOTE for item 7.3.1.2 to ensure all corrective actions and/or improvement items are documented using the CARD process.
- 10) Added instructor to item 7.4 and assigned completion of Attachment 5 to Lead Controllers/Instructors.
- 11) Added item 8.1.1.9 to include Attachment 5 to the “Drill/Exercise” files “required records”.
- 12) Revised 8.2 to address retention of Drill/Exercises files “miscellaneous records”.
- 13) Added Attachment 5, NRC Performance Indicators (RERP) Documentation Form.
- 14) Incorporated editorial changes.

Implementation Plan

- 1) This procedure goes into effect upon issuance.

Attachments

- | | | |
|---|--------|---|
| 1 | 071095 | Controller/Evaluator Comment Form |
| 2 | 071095 | Drill/Exercise Critique Form |
| 3 | 071095 | Drill/Exercise Component Checklist |
| 4 | 071095 | Drill/Exercise Authorization |
| 5 | 030800 | NRC Performance Indicator (RERP) Documentation Form |

Enclosures - None

<i>Information and Procedures</i>				
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CONTROLLED

1.0 PURPOSE

To implement the Radiological Emergency Response Preparedness (RERP) Plan requirements for emergency drills and exercises.

2.0 SCOPE

This procedure applies to drills and exercises conducted at Fermi 2 as part of the RERP Program in order to train and test personnel, and evaluate the effectiveness of the RERP Plan, implementing procedures, and emergency response facilities.

3.0 RESPONSIBILITIES

3.1 The Supervisor, RERP has the primary responsibility for implementing this procedure.

3.2 The following organizations or individuals are also required to take actions by this procedure:

3.2.1 RERP Staff

3.2.2 Other Fermi 2 personnel assigned to the drill team by the Supervisor, RERP

4.0 USE REFERENCES

4.1 MQA11, Condition Assessment Resolution Document

5.0 GENERAL REQUIREMENTS

5.1 The following definitions apply in this procedure:

5.1.1 **Drill:** A simulated emergency event designed as a supervised instruction period intended to train, develop, and maintain skills related to emergency response.

5.1.2 **Exercise:** A simulated emergency event intended to test the integrated capability of a major portion of the basic elements existing within the emergency preparedness plans and organizations.

5.1.3 **Drill Team:** The group of personnel tasked with the safe conduct of a drill or exercise in accordance with the approved drill scenario.

- 5.1.4 **Drill Coordinator:** The individual assigned ultimate responsibility and authority within the drill team. The Drill Coordinator determines when the event will be initiated and terminated, resolves any discrepancies, and generally supervises conduct of the event.
 - 5.1.5 **Controller:** A member of the drill team assigned to one or more activities or functions for the purpose of maintaining the action in accordance with the scenario, preventing unsafe actions, providing appropriate coaching, or otherwise assisting in the conduct of the event. Controllers report to an assigned Lead Controller who is generally a member of the RERP Staff.
 - 5.1.6 **Evaluator:** A member of the drill team assigned to observe one or more activities or functions for the purpose of recording observations for subsequent evaluation and critique. An evaluator will often be assigned controlling functions also.
 - 5.1.7 **Player:** A participant in the drill or exercise who responds to the simulated events by taking actions that would be appropriate in response to actual emergency conditions.
 - 5.1.8 **Observer:** A non-participant in a drill or exercise present to observe the event for the purpose of training or the conduct of an independent evaluation. During the conduct of the drill or exercise, observers are only to have contact with players or members of the drill team for the purpose of being trained.
- 5.2 Periodic drills are conducted to develop and maintain key skills within personnel assigned duties in the Emergency Response Organization (ERO). These include the following:
- 5.2.1 **Fire:** Fire drills are conducted quarterly. A fire drill involving the Frenchtown Fire Department is conducted annually.
 - 5.2.2 **Medical Emergency:** Medical Emergency drills, which involve a simulated contaminated individual and participation by local support agencies (for example, ambulance or fire and rescue service, Mercy Memorial or Oakwood Hospital-Seaway Center Hospitals).
 - 5.2.3 **Radiological Monitoring:** Radiological Emergency Team drills are conducted annually. These drills shall include the collection and analysis of air samples and environmental media including water, vegetation, and soil from the Owner-Controlled Area or nearby off-site areas. In addition, these drills provide an opportunity for the assessment of communication and record keeping abilities.

- 5.2.4 **Health Physics:** Health Physics drills involve response to and analysis of simulated elevated airborne and/or liquid samples as well as direct radiation measurements in the environment. These tasks will be evaluated semi-annually. Analysis of in-plant liquid samples with simulated elevated radiation levels, including use of the Post Accident Sampling System, will be conducted annually.
- 5.2.5 **Additional Drills:** Additional drills will be scheduled as necessary to provide adequate training of personnel, evaluation of risk-significant activities, and to ensure an adequate level of emergency preparedness. At least one drill will be conducted during non-exercise years involving some of the principal functional areas and tasks.
- 5.3 Periodic exercises are conducted to evaluate major portions of the Emergency Preparedness Program.
- 5.4 Exercises may be evaluated by the NRC. However, all exercises are evaluated.
- 5.5 An actual event which meets the criteria of a required drill or exercise may be substituted for the required drill or exercise.
- 5.6 Periodic drills and exercises may be used to evaluate risk significant activities for the purpose of data collection for the NRC Performance Indicators – RERP.
- 5.7 Information transmitted offsite during drills and exercises shall be clearly marked as drill information to indicate that the event is simulated.
- 5.8 Only fully qualified members of the ERO will be assigned duties as players during annual exercises.
 - 5.8.1 During drills, players who have not completed qualification may be assigned to participate if a designated coach is provided to ensure maximum training benefit for all participants.
- 5.9 At a minimum, the general format for drill and exercise scenarios shall contain the following:
 - 5.9.1 Basic objectives of the drill or exercise and appropriate evaluation criteria
 - 5.9.2 Date, time period, location, and the participating organizations
 - 5.9.3 Simulated events

- 5.9.4 Time schedule of real and simulated initiating events
- 5.9.5 Assignments of qualified drill or exercise controllers and evaluators
- 5.9.6 Messages and evaluation forms for use by the drill or exercise controllers/evaluators
- 5.9.7 List of observers from federal, state, and local government agencies, as appropriate
- 5.9.8 Narrative summary which describes the conduct of the exercise or drill and includes such items as:
 - 1. Simulated casualties
 - 2. Offsite fire department or medical assistance
 - 3. Rescue of personnel
 - 4. Drill simulations
 - 5. Deployment of Radiological Emergency Teams
 - 6. Public information activities

5.10 Exercise scenarios shall be:

- 5.10.1 Varied in content from year to year so that all major portions of the RERP Plan and the ERO are tested over a six year period .
- 5.10.2 Initiated between the hours of 6:00 PM and 4:00 AM once every six years.
- 5.10.3 Conducted under various weather conditions.

5.11 Drill and Exercise Objectives

- 5.11.1 Objectives should be written to accurately reflect the intent or goal behind the conduct of the evolution (overall drill/exercise or specific aspect being observed).
 - 1. For example, action verbs should be chosen to indicate the purpose of the evolution and the individual or group taking action.

- a. **Demonstrate:** Indicates an action by the players, and is appropriate for an objective meeting the requirement of periodically testing major portions of the RERP Plan.
- b. **Evaluate:** Indicates an action by the drill team, and is appropriate for an objective intended to determine adequacy of some aspect of the RERP Plan, implementing procedures, facilities, or player preparation.
- c. **Familiarize or Instruct:** Both indicate actions for the drill team, and are appropriate for objectives intended to provide training or instruction to players.

5.11.2 Objectives should be formulated to serve as a measure of scenario adequacy and/or player performance.

5.11.3 Critical objectives are those objectives which, if not met, would indicate player performance that would compromise the ability to implement the requirements of the RERP Plan, or weakness in scenario design or implementation which prevents accomplishment of a major goal of the evolution.

1. Critical **exercise** objectives generally contain "demonstrate-type" action verbs since the intent of the exercise is to test the adequacy of Fermi 2 Emergency Preparedness.

5.11.4 Objectives should be written to four levels of specificity since they will be used to establish whether the intent of the evolution has been satisfactorily met or if remediation is required.

1. **Overall drill/exercise objectives** should reflect only those goals which are:
 - a. Of such broad scope that failure to meet the objective may indicate an unsatisfactory performance by all or most of the ERO or facilities.

or

- b. Of such significance to accomplishment of the goals of the RERP Plan that failure to meet the objective may result in a rating of unsatisfactory for the overall emergency response.

or

- c. Of such a broad scope or significance that the overall intent of the drill or exercise would not be met if the scenario or its implementation did not provide players with the opportunity to accomplish the objective.

2. **Facility objectives** should reflect those goals which are:

- a. Of such broad scope that failure to meet the objective may indicate an unsatisfactory performance by all or most of the participants in the facility.

or

- b. Of such significance to accomplishment of the goals of the facility that failure to meet the objective may result in a rating of unsatisfactory for facility performance.

or

- c. Of such a broad scope or significance that inadequacy of the scenario or its implementation to provide the opportunity to meet the objective would prevent the overall intent for the facility from being met.

- 3. **Limited objectives** are those which do not meet the criteria above, but represent significant activities or tasks of such limited scope that failure to meet the objective would not result in a failure of overall or facility response.

- 4. **Non-critical objectives** are those which do not meet the above criteria, and are generally used for activities which are of limited risk significance.

5.11.5 Overall, facility, and limited objectives are considered critical objectives. Failure to meet critical objectives may result in a rating of "unsatisfactory" in that area. If an "unsatisfactory" is assessed, reperformance of the activities or tasks for the objective shall be completed and evaluated.

5.11.6 Adherence to approved procedures is a required performance standard and will be considered a critical objective for all drills and exercises.

5.11.7 Failure to meet non-critical objectives will be evaluated on an individual basis, but should require some form of remediation to be performed.

5.11.8 Following a drill or exercise, objectives which are not satisfactorily met will be reevaluated based on the significance of the circumstance to ensure that the objective still fits under the category originally assigned.

1. As an example, an unmet overall objective may be recategorized as a limited objective if the significance of the failure was mitigated by other player actions or by the context of the drill.

6.0 PROCEDURE

6.1 The Supervisor, RERP or designee shall:

6.1.1 Establish a schedule of drill activities to ensure the accomplishment of all required drills and exercises.

1. Ensure schedule is disseminated throughout the nuclear organization.

6.1.2 Determine which drills will be used for NRC Performance Indicators – RERP data collection.

6.1.3 Assign personnel to the drill team as required for conduct of the drill or exercise.

1. Ensure personnel are adequately prepared for the positions for which they are assigned.
2. For drills, ensure a coach is assigned to any ERO member filling a position for which he is not fully qualified.

6.1.4 Obtain review and approval of planned scenario for implementation as scheduled.

1. Determine appropriate organization heads to review scenario based on impact of scheduled time and scope.

NOTE: Scenario confidentiality shall be maintained during the review process. If approval is to be obtained from a designated player, only the drill scope and objectives need to be routed.

2. Route the scope, objectives, and if appropriate, sequence of events.

6.1.5 Provide sequence of events to Nuclear Training for development and validation of simulator scenario approximately four weeks before scheduled implementation date.

- 6.1.6 Conduct pre-drill briefing for drill team and other drill or exercise participants as appropriate.
- 6.1.7 Coordinate activities with offsite authorities and agencies as required.
- 6.2 The RERP Staff shall:
 - 6.2.1 Develop scenario and support materials as assigned.
 - 6.2.2 Supervise designated drill team members as Lead Controller of areas as assigned.
 - 6.2.3 Complete other drill related activities as assigned by the Supervisor, RERP.
- 6.3 The Drill Coordinator shall:
 - 6.3.1 Initiate drill or exercise in accordance with approved schedule.
 - 6.3.2 Coordinate activities between Lead Controllers to keep the scenario on schedule.
 - 6.3.3 Authorize deviation from planned sequence when necessary to ensure maximum opportunity to accomplish drill or exercise objectives.
 - 6.3.4 Terminate drill or exercise when applicable criteria have been met or as otherwise judged prudent or appropriate.
- 6.4 Lead Controllers shall:
 - 6.4.1 Ensure controller assignments and instructions are such that applicable objectives can be adequately monitored by the drill team.
 - 6.4.2 Supervise drill team members within area of assigned responsibility.
 - 6.4.3 Ensure initiation of events or activities in accordance with approved scenario.
 - 6.4.4 Implement applicable steps of Section 6.5.
 - 6.4.5 Ensure all participants, controllers, evaluators, coaches, and mentors sign the training attendance form.
- 6.5 Controllers shall:
 - 6.5.1 Participate in pre-drill briefings and other activities as assigned.

- 6.5.2 Review appropriate portions of the drill scenario package in order to understand assigned responsibilities and ensure scenario adequacy.
 - 6.5.3 Review procedures, work instructions, or other applicable material as appropriate to become familiar with activities being controlled.
 - 6.5.4 Walkdown areas of control function before the drill or exercise to identify any hazards or potential interferences to the implementation of planned events.
 - 6.5.5 Initiate events, activities, or messages as specified in the scenario.
 - 6.5.6 Ensure all appropriate safety precautions, including radiological safety precautions, are implemented for **actual plant conditions**.
 - 6.5.7 Take necessary measures to prevent unsafe actions from being taken by players.
 - 6.5.8 Ensure no plant equipment is operated without the knowledge and permission of the **Main Control Room** (not Simulator Control Room).
 - 6.5.9 During drills, correct unsatisfactory performance on the spot, and include demonstration of proper performance as appropriate.
 - 6.5.10 Document all on the spot corrective actions for performance weaknesses on Attachment 1.
 - 6.5.11 Implement applicable steps of Section 6.6 as assigned.
- 6.6 Evaluators shall:
- 6.6.1 Participate in pre-drill briefings and other activities as assigned.
 - 6.6.2 Review procedures, work instructions, or other applicable material as appropriate to become familiar with activities being evaluated.
 - 6.6.3 Observe player performance and related facilities, equipment, and procedures for adequacy.
 - 6.6.4 Record relevant observations on Attachment 1.

7.0 FOLLOW UP ACTIONS

7.1 The Supervisor, RERP shall

- 7.1.1 Ensure facility critiques are conducted as soon as possible following the drill or exercise.
- 7.1.2 Ensure appropriate portions of Attachment 2 are completed to document findings.
- 7.1.3 Review weaknesses and recommended corrective actions to ensure the requirements of MQA11 are implemented.

NOTE: Satisfactory drill or exercise performance is generally determined by successful accomplishment of related objectives.

- 7.1.4 Review and approve Attachment 2 including ratings of overall drill or exercise and facility performance as satisfactory or unsatisfactory.
 - 1. Ensure that any rating which is not based strictly on successful accomplishment of objectives is clearly documented, including explanation for rating, on Attachment 2.
- 7.1.5 Review and approve final disposition of corrective actions including remedial actions for unsatisfactory ratings.
- 7.1.6 Review the evaluation of risk significant activities used for NRC Performance Indicators – RERP data collection as appropriate using Attachment 5.

7.2 The RERP Staff shall:

- 7.2.1 Ensure any equipment operated for the drill or exercise, including the Emergency Response Facilities, is restored to its prior condition upon completion of the evolution.
- 7.2.2 Review assigned portions of Attachment 2 to ensure adequacy.
- 7.2.3 Complete Attachment 3 as assigned.
- 7.2.4 Implement corrective actions as assigned.
- 7.2.5 Compile drill records for retention as assigned.

7.3 The Drill Coordinator shall:

7.3.1 Conduct an overall drill or exercise critique with appropriate members of the drill team as soon as possible after the drill or exercise.

1. Review and evaluate performance based on observations noted on Attachment 1.
2. Review requirements of MQA11 and initiate CARD as required for any performance or equipment deficiency or improvement item noted.
3. Determine whether applicable objectives have been met.
4. Reevaluate assigned category for any objectives which were not met to ensure assigned category is valid based on the circumstances of the drill or exercise.
5. Note any change to assigned objective category in the drill or exercise summary of Attachment 2.

NOTE: Satisfactory drill or exercise performance is generally determined by accomplishment of related objectives.

6. Assign recommended ratings for overall drill or exercise and facility performance based on accomplishment of objectives related to those areas.
7. Note any other unmet objectives and recommend corrective action disposition.

7.3.2 Assign Lead Controllers to complete applicable portions of Attachment 2.

1. Ensure relevant observations, evaluations, any completed corrective actions, and weaknesses or deficiencies, including recommended corrective action dispositions, are documented on Attachment 2.

7.4 Lead Controllers/Instructors shall:

- 7.4.1 Debrief with assigned members of the drill team immediately following the drill or exercise.
- 7.4.2 Facilitate critique with players and appropriate members of the drill team as soon as possible following the drill or exercise.
- 7.4.3 Collect related drill materials generated by players and drill team members in assigned areas.
- 7.4.4 Participate in overall drill or exercise critique with the Drill Coordinator as scheduled.
- 7.4.5 Complete assigned sections of Attachment 2.
- 7.4.6 Complete Attachment 5.

7.5 Controllers shall:

- 7.5.1 Ensure all equipment used for activities under their control is restored upon completion of the drill or exercise.
- 7.5.2 Debrief with Lead Controller immediately following the drill or exercise.
- 7.5.3 Participate in critique of areas controlled as soon as possible following the drill or exercise.
- 7.5.4 Provide observations documented on Attachment 1, along with any evaluation requested, to Lead Controller.

7.6 Evaluators shall:

- 7.6.1 Debrief with Lead Controller immediately following the drill or exercise.
- 7.6.2 Participate in critique of areas evaluated as soon as possible following the drill or exercise.
- 7.6.3 Provide observations documented on Attachment 1, along with any evaluation requested, to Lead Controller.
- 7.6.4 Participate in overall critique as assigned.

8.0 RECORDS

8.1 The following are required records and shall be retained:

8.1.1 Drill/Exercise files shall contain records for each drill or exercise conducted, which include the following items:

1. Objectives for Drill/Exercise
2. List of Controllers
3. Sequence of events
4. Controller/Evaluator Comment Forms (Attachment 1)
5. Applicable completed Drill/Exercise Critique Form (Attachment 2)
6. Formal written evaluations
7. Applicable completed Drill/Exercise Component Checklist (Attachment 3)
8. Applicable completed Drill/Exercise Authorization (Attachment 4).
9. Applicable completed NRC Performance Indicator (RERP) Documentation Form (Attachment 5).

8.1.2 Actual Event Files containing all records generated from the event.

8.2 Miscellaneous records shall also be retained and contain all other forms or documents generated (originals only) during the drill or exercise.

8.3 Record Retention Requirements:

8.3.1 Actual Event, Exercise, and Drill files shall be maintained in accordance with the approved record retention schedule.

8.4 Radiation Protection or fire drills that are not part of an RERP exercise or drill are written, controlled, and retained by the responsible department in accordance with their own established records retention requirements.

END OF TEXT

DRILL/EXERCISE CRITIQUE

PART 1: OVERALL DRILL/EXERCISE CRITIQUE (All Evaluators)

A. Drill/Exercise Implementation:

Scenario	Date Implemented	Coordinator
Control Room Shift	ERO Team	

B. Post Drill Critique held:

Date/Time	Location
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C. Assignment of Controllers/Evaluators (attach copy of names and locations assigned)

D. Participating offsite organizations:

E. Emergency Plan or Emergency Procedure deficiencies identified during conduct of drill/exercise.

F. Equipment deficiencies (equipment failure, lack of emergency equipment, improper storage, inadequacy of equipment or tools, etc.).

G. Deficiencies in drill/scenario (number or placement of controllers, monitoring or management of drill/exercise, communications between controllers and Drill/Exercise Coordinator, etc.).

PART 2: CONTROL ROOM PERFORMANCE (CR Evaluator)

- A. All related facility objectives were met YES NO

- B. Facility performance rating SAT UNSAT

- C. General comments, observations, and evaluations

PART 3: OSC PERFORMANCE (OSC Evaluator)

- A. All related facility objectives were met YES NO

- B. Facility performance rating SAT UNSAT

- C.. General comments, observations, and evaluations

PART 4: TSC PERFORMANCE (TSC Evaluator)

- A. All related facility objectives were met YES NO
- B. Facility performance rating SAT UNSAT
- C.. General comments, observations, and evaluations

PART 5: EOF PERFORMANCE (EOF Evaluator)

- A. All related facility objectives were met YES NO
- B. Facility performance rating SAT UNSAT
- C.. General comments, observations, and evaluations

PART 6: JPIC PERFORMANCE (JPIC Evaluator)

- A. All related facility objectives were met YES NO
- B. Facility performance rating SAT UNSAT
- C. General comments, observations, and evaluations

PART 7: MEDICAL DRILL PERFORMANCE (Medical Drill Evaluator)

- A. All related objectives were met YES NO

- B. Performance rating SAT UNSAT

- C.. General comments, observations, and evaluations

PART 8: OFFSITE RET PERFORMANCE (Offsite RET Evaluator)

- A. All related objectives were met YES NO

- B. Performance rating SAT UNSAT

- C. General comments, observations, and evaluations

PART 9: OVERALL DRILL/EXERCISE EVALUATION

- A. All Overall Drill/Exercise objectives met YES NO

- B. Overall Drill/Exercise Evaluation SAT UNSAT
(Attach written summary)

C. Corrective Action Follow-up

Weakness/Deficiency

Disposition

Approved _____
Supervisor, RERP

DRILL/EXERCISE CRITIQUE CONTINUATION SHEET

DRILL/EXERCISE AUTHORIZATION

Scenario: _____

Implementation Date: _____

I have reviewed, at a minimum, the objectives and scope of the above scenario and concur with its use on the specified date.

Superintendent, Operations _____ Date NA

Superintendent, Radiation Protection _____ Date NA

Director, Nuclear Security _____ Date NA

Others:

Date _____

Date _____

Supervisor, RERP _____ Date

Plant Manager _____ Date NA

NRC Performance Indicator (RERP) Documentation Form

Date: _____

Setting: _____

Drill/Exercise Performance Data				
Classifications:	Total Opportunities		Successful Opportunities	
Notifications:	Total Opportunities		Successful Opportunities	
PARs:	Total Opportunities		Successful Opportunities	
Totals				

ERO Drill Participation		
Position	Name	Role*
Nuclear Shift Supervisor		
Shift Communicator		
Emergency Director		
Radiation Protection Advisor		
TSC Administrator		
Technical Engineer		
Nuclear Safety Advisor		
Emergency Officer		
Radiation Protection Coordinator		
EOF Administrator		
OSC Coordinator		

