

INSPECTION PROCEDURE 71114 ATTACHMENT 8

EXERCISE EVALUATION–SCENARIO REVIEW

Effective Date: July 1, 2026

PROGRAM APPLICABILITY: IMC 2515 A

CORNERSTONE: Emergency Preparedness

INSPECTION BASES: IMC 0308

SAMPLE REQUIREMENTS:

Sample Requirements		Minimum Baseline Completion Sample Requirements		Budgeted Range	
Sample Type	Section	Frequency	Sample Size	Samples	Hours
Scenario review	02.01 – 02.04	Biennial	1	1	10-12

71114.08-01 INSPECTION OBJECTIVE

Review licensee submitted biennial **evaluated** exercise scenarios to ensure the exercise demonstration provides opportunities to demonstrate the licensee’s capability to adequately perform key skills in **principle** functional areas to protect public health and safety in the unlikely event of a radiological emergency.

71114.08-02 INSPECTION REQUIREMENTS

NOTE: This inspection is to be implemented in parallel with the guidance of IP 71114 as applicable.

Note: Licensees may structure exercise scenario packages differently and this should be found acceptable, provided that the **evaluated** exercise, as **proposed**, will meet **the** requirements of 10 CFR Part 50, Appendix E, § IV.F.2, and the facility emergency plan. **Typically, it is not acceptable to pre-stage exercise players. However, the scenario complexity may require pre-staging in certain facilities to maximize the time allotted for the exercise, particularly for the incident command post (ICP), remote emergency operations facilities (EOFs), and Joint Information Center/Joint Information System (JIC/JIS), when the offsite response organizations (OROs) will want to pre-stage. If pre-staging is warranted, this must be documented in the**

scenario (drill) manual with the basis for the pre-staging. NRC and FEMA evaluators can then ask any clarifying questions during the scenario review meeting discussed in Section 02.04.

02.01 Verify the submitted scenario package includes, but is not limited, to the following:

- documentation of specific regulatory objectives the exercise is expected to comply with (i.e., App E.IV.F.2.(b), (c), etc.),
- documentation of NRC participation in the exercise,
- exercise objectives that support demonstration of key skills in principle functional areas,
- timeline of exercise events and event classifications (and PARs if applicable),
- a description of any mini scenarios, including those that are out of sequence, for both onsite and offsite response,
- a description of key injects and messages,
- the expected emergency response organization (ERO) and ORO participation, including the NRC Resident Inspectors,
 - NOTE: If the NRC Resident Inspector(s) will be playing in the exercise, e.g., responding as if it was an actual event, then they need to participate in any pre-exercise meetings required by the exercise ERO, respond as if it was an actual event, and participate in the facility critique as part of the ERO. If they will not be responding as a player, the licensee should be informed. The participating ERO documented in the scenario package developed by the licensee will typically include the NRC Resident Inspectors, by name, and whether they will be playing or not.
- applicable plant, player, and controller/evaluator safety considerations,
- identification of expected DEP-PI opportunities,
- documentation of any preparation activities, or arrangements, with the NRC HOO related to communication and ERDS data transmission, as applicable to the scenario, including the use of phone cells if necessary.

02.02 Evaluate the ability of the scenario to provide opportunities for the ERO to demonstrate proficiency in key skills necessary to implement the principle functional areas of emergency response, including those skills specific to emergency response duties in the control room, technical support center (TSC), operational support center (OSC), emergency operations facility (EOF), and joint information center (JIC)/joint information system (JIS), Incident Command Post (ICP), and Alternate Facility, as applicable for the scenario.

02.03 The evaluated exercise inspection team should be identified and documented with assignments.

02.04 On or about the 45-day point prior to the exercise date, schedule a meeting between the licensee EP staff responsible for the scenario, FEMA staff responsible for their review of the scenario, and available regional inspectors who will be evaluating the exercise. At a minimum, ensure to discuss the following:

- exercise week schedule, including dates and times of key meetings and logistics
- which regulations this exercise is seeking to comply with, i.e., App E.IV.F.2.b and c, 2.j.(iii).(1-5)
- the importance of the licensee providing FEMA with all the information they need as the NRC will base our compliance decision for App E.IV.F.2.c from FEMA's input
- any concerns about whether all the ERFs 'play' enough for the NRC to evaluate compliance with App E.IV.2.j.(i-ii)
- confirmation of expected DEP opportunities
- any concerns over scenario diversity issues and whether or not the exercise is sufficiently different from recent past drills and exercises
- any FEMA questions or concerns
- Go through the scenario and have the licensee address all questions and concerns.

If FEMA is unable to participate in this planning meeting, the inspectors should discuss the need for the licensee to resolve any FEMA comments on the scenario as soon as practical.

71114.08-03 INSPECTION GUIDANCE

03.01 **Verify scenario submittal is complete and has all the relevant information to ensure adequate control of the exercise and that the scenario is reasonably varied from those used in the last two years of biennial exercises, off-year exercise(s), integrated response facility drills etc. Although some emergency action levels will likely be reused over the biennial period, the inspectors should note whether entire scenarios are being repeated by the licensee and, if so, how they control the information to avoid preconditioning.**

Note: Scenarios are submitted per 10 CFR § 50.4. The document is entered into the ADAMS as not publicly available. Confidentiality of the scenario shall be maintained and a Sensitive Unclassified Non-Safeguards Information (SUNSI) review (for purposes of making the document public) shall not be performed until after completion of the exercise. The SUNSI review is performed by a Subject Matter Expert (e.g., a member of the U.S. Nuclear Regulatory Commission (NRC) Emergency Preparedness (EP) staff or the Project Manager for the specific site). Licensees may include a cover page with wording similar to: "This document's availability should be controlled as non-public to ensure confidentiality from exercise responders until the conduct of the exercise is concluded."

After completion of the exercise and following a SUNSI review, the cover page may be removed or redacted, the file version updated in ADAMS and the document may be made publicly available, as determined by the SUNSI review. If a Freedom of Information Act request is submitted prior to the exercise date, notify NRC HQ and refer to ML12158A329 for disposition of the public release of the scenario.

Licensees are responsible for requesting the scenario not be made publicly available if the exercise date is postponed.

Technical evaluations of the scenario data and exercise control are the responsibility of the licensee. Review and verification of technical details such as, engineering operational parameters, engineering logic, source term, radiological instrumentation data, plant parameter units and data/injects provided by controllers is the responsibility of the licensee. Problems with the licensee's review and verification may be revealed during the exercise or its critique and will be handled by IP 71114.01.

03.02 Evaluate scenario opportunities for the ERO to demonstrate key skills by ensuring:

- a. Opportunities for the ERO to perform their key skills as applicable to their emergency response duties in the TSC, OSC, EOF, JIC/JIS, ICP, or alternate facility, as applicable to the scenario, are provided.
 1. Note that EP exercises are not necessarily intended to evaluate the 'skill of the craft' for OSC staff (i.e., mechanics, electricians, I&C, HPs, etc.), however any issues related with their performance will be noted.
 2. The expected performance criteria for the OSC is typically based on the 'OSC Repair Life-Cycle.'
 - (a) For example, the CR and TSC establish priorities, the TSC staff (typically engineering) develop a plan, this is communicated to the OSC, an OSC team is formed, the OSC team is briefed, the OSC team performs the work, the OSC team debriefs with applicable OSC supervision, this is communicated to the TSC, and the issue is identified as completed or a new set of directions are developed and provided to the OSC.
- b. Verify that the scenario data and progression of events are credible, logical, and challenging. The demands of the onsite and offsite exercise objectives will likely preclude complete fidelity between the scenario and the actual ERO response. The inspector will need to use judgment, based on experience, in performing this review. Examples of items to consider include:
 1. Exercise play should be consistent with all simulated events or conditions.
 2. If the core is simulated as being melted, the corresponding in-plant radiation levels should increase comparably.
 3. If a loss of AC power source is simulated, equipment and instrumentation that relies on that source should not be considered operable.

4. A release should not be simulated as being stopped until the cause of the release has been corrected or mitigated.
5. Simulated releases should not begin before the failures that cause the release to occur.
6. Simulated field monitoring data should be consistent with simulated wind directions and plume transit times (e.g., the dose rate increases after the plume reaches that point).
7. The timing of scenario events should be comparable with the time it would take the ERO to perform particular tasks under actual emergency conditions (e.g., time spent obtaining a radiation work permit, getting a work briefing, donning personal protective equipment, obtaining tools and parts, etc.).
8. **If this is a HAB exercise, verify** scenario exercise objectives include HAB elements. Refer to NEI 06-04, "Conducting a Hostile Action-based Emergency Response Drill" Rev. 2, Appendix A, "Drill and Exercise Objectives" for acceptable exercise objectives.

03.03 Confirm details of the inspection week with the licensee and FEMA and resolve any questions during the 45-day discussion to allow the licensee to make any necessary changes prior to the exercise.

Occasionally circumstances may cause licensees to separate the onsite and offsite portions of the evaluated exercise, leading to asynchronous review by NRC and FEMA. If that is the case, inspectors are still responsible for verifying licensee compliance with Appendix E, Section IV.F.2.c, the offsite full participation exercise requirements. See the guidance in IP 71114.01, Exercise Evaluation, for additional information.

- a. Review the FEMA extent of play agreement to understand the participants' commitments and facilities to be evaluated. This document will define the approach for demonstrating and evaluating the FEMA REPP Manual capability targets.
- b. The FEMA Radiological Emergency Preparedness Program (REPP) Manual capability targets and the applicable evaluation criterion in the table below must be demonstrated during the offsite biennial full participation exercise as they relate to the NRC RSPS to support the NRC Appendix E, Section IV.F.2.c compliance determination. This table paraphrases the ORO minimum demonstration needed for the FEMA REPP Manual Capability Targets and cross-references them to the applicable NRC RSPS and NUREG-0654/FEMA-REP-1, Revision 2, evaluation criteria to ensure effective communication and consistent understanding.

FEMA REPP Manual Capability Target	NRC Risk Significant Planning Standard
<p>Capability Targets 1.2, 1.3 (plume), and 1.4</p> <p>Implementation of the minimum emergency response measures commensurate with the emergency classification level declared by the licensee.</p>	<p>10 CFR 50.47(b)(4)</p> <p>NUREG-0654/FEMA-REP-1, Evaluation Criteria (EC) D.4</p>
<p>Capability Targets 3.2 and 3.3 (plume)</p> <p>Demonstration of the ability to alert and notify the public in a timely manner.</p> <p>Demonstration of the capability to provide accurate emergency information and instructions to the public and the news media in a timely manner.</p>	<p>10 CFR 50.47(b)(5)</p> <p>NUREG-0654/FEMA-REP-1, EC E.2 and E.4</p>
<p>Capability Target 4.5</p> <p>Demonstration of the ability to perform dose assessments that consider all available information including plant conditions, environmental conditions, field monitoring data, sample analysis results, and dose projection calculations. Information may be provided when earned by the ORO.</p>	<p>10 CFR 50.47(b)(9)</p> <p>NUREG-0654/FEMA-REP-1, EC I.8</p>
<p>Capability Targets 1.3, 1.4, and 1.5</p> <p>Demonstration by the responsible ORO(s) to develop and provide protective action recommendations, in a timely manner, directly to the designated ORO(s) responsible for making protective action decisions (PADs) within the plume exposure pathway EPZ.</p> <p>Demonstration of the capability to implement protective actions and coordinated implementation of PADs with all appropriate jurisdictions. The demonstration should include, as a minimum, identification of those with access and functional needs during the implementation of the protective action.</p> <p>Demonstration of the capability to implement precautionary protective actions (e.g., actions taken at a site area emergency).</p>	<p>10 CFR 50.47(b)(10)</p> <p>NUREG-0654/FEMA-REP-1 EC J.9, J.11, J.11.a, J.11.g</p>

- c. Note that HAB scenarios are more complex and difficult to evaluate when the onsite and offsite portions are split. Consult the Office of the Chief Nuclear Reactor Inspector, Division of Oversight and Compliance Programs, Reactor Inspection Branch

(CNRI/DOCP/RIB) for additional guidance if a licensee plans to separate the onsite and offsite portions of a HAB.

71114.08-04 REFERENCES

NEI 06-04, "Conducting a Hostile Action-based Emergency Response Drill" Rev. 2, Appendix A, "Drill and Exercise Objectives" (ML112091915)

NSIR-DPR-ISG-01, "Emergency Planning For Nuclear Power Plants"

Order EA-02-026, "Order for Interim Safeguards and Security Compensatory Measures," February 25, 2002

RG 1.214, "Response Strategies for Potential Aircraft Threats," September 2009

SECY-03-0165, "Evaluation of Nuclear Power Reactor Emergency Preparedness Planning Basis Adequacy in the Post-9/11 Threat Environment," September 22, 2003

END

Attachment 1: Revision History for IP 71114.08

Commitment Tracking Number	Accession Number Issue Date Change Notice	Description of Change	Description of Training Required and Completion Date	Comment Resolution and Feedback Form Accession Number (Pre-Decisional, Non-Public Information)
N/A	ML12191A249 09/19/12 CN 12-021	Initial Issuance.	Yes - Provided at EP Face to Face counter-part meeting 09/09/2011 & 05/31/2012	ML12191A255
	ML15237A301 07/21/16 CN 16-017	<ul style="list-style-type: none"> • Removed “to the RAC Chair” from the title of step 03.04 to “Submit scenario comments to the RAC Chair” and added detail describing scenario comment documentation expectations. • Feedback Form 71114-1925 – Align procedure with standard section numbering format of completion section under 71114.08-05 and the references under 71114.08-06 • Added to section 71114.08-05 “Procedure Completion” the IP 71152 “Problem Identification and Resolution” expectation for routine PI&R activity reviews to be approximately 10 to 15 percent of the baseline cornerstone inspection procedure resources estimates. The 10 to 15 percent approximation is based on the overall expected inspection effort and is a general estimate only. 	None required	ML15237A344 Feedback Form 71114.08-1925 (ML15237A307)
	ML24290A121 07/01/26 CN 26-029	<p>Per EP Initiatives implemented per EO 14300 Section 5(g) and the Advance Act, Sect 507.(d)(1)(A, B, and C). These changes are based upon:</p> <ul style="list-style-type: none"> • Rebaseline of EP Inspection Procedures to incorporate lessons-learned, enhance inspections, and reinforce the requirements for qualified inspectors, including enhancing PI&R guidance. • Incorporated EP IP frequency and resource planning information. • Incorporate HAB exercise information and remove references to IP 71114.07 for HAB exercises as this information will be placed in IP 71114.01. 		