

ATTACHMENT 82002.04

EMERGENCY PREPAREDNESS EXERCISES

82002.04-01 INSPECTION OBJECTIVES

To verify, during plant construction (and prior to fuel load of the plant), the operational readiness of the licensee's Emergency Preparedness (EP) exercise program; and to ensure the licensee's ability to transition to monitoring under the reactor oversight process.

82002.04-02 INSPECTION REQUIREMENTS

General Requirements

02.01 Prepare for the qualifying/prior to fuel loading exercise inspection. This exercise is required for each licensee site, including each licensee at a co-located site.

02.02 Perform independent observations of licensee performance in classification, notification, protective action recommendation (PAR) development, dose assessment activities and as many other aspects of performance as resources allow. In the case of co-located licensees, verify licensee compliance with the requirements of 10 CFR Part 50, Appendix E, Paragraph IV.F.2.c concerning the continuance of certain activities in the period between biennial exercises.

02.03 Evaluate whether a weakness(es) observed by the inspection team was appropriately identified by the licensee's formal critique and entered into the corrective action program.

02.04 Identify any weaknesses that may reveal a failure to meet a planning standard or other regulatory requirement.

02.05 Represent Nuclear Regulatory Commission (NRC) at the Federal Emergency Management Agency (FEMA) public meeting.

02.06 Review the proposed offsite exercise deficiencies provided by FEMA and inform the licensee of those deficiencies.

02.07 Determine whether the licensee demonstrated reasonable assurance that it is capable of effectively implementing its Emergency Plan to adequately protect public health and safety in the event of a radiological emergency.

Specific Facility/Area Requirements

02.08 Control Room. Observe and evaluate the performance of licensee emergency response personnel in the control room, as they perform the following activities during a drill or exercise:

- a. Facility management and control
- b. Analysis of plant conditions and corrective actions

- c. Detection and classification of emergency events
- d. Protective action decision-making and recommendations
- e. Notifications and communications
- f. Implementation of onsite protective actions
- g. Dose assessment
- h. Evaluation of post-accident sampling (or licensee's equivalent capacity) results
- i. Dispatch and coordination of monitoring teams

02.09 Technical Support Center (TSC). Observe and evaluate the performance of licensee emergency response personnel in the TSC as they perform the following activities during a drill or exercise:

- a. Staffing and activation of the TSC
- b. Facility management and control
- c. Accident assessment and classification
- d. Dose assessment
- e. Protective action decision making and recommendations
- f. Notifications and communications
- g. Implementation of protective actions
- h. Assistance and support to control room
- i. Evaluation of post-accident sampling (or licensee's equivalent capacity) results
- j. Dispatch and coordination of monitoring teams

02.10 Emergency Operations Facility (EOF). Observe and evaluate the performance of licensee emergency response personnel in the EOF as they perform the following activities during a drill or exercise:

- a. Staffing and activation of the EOF
- b. Facility management and control
- c. Accident assessment and classification

- d. Offsite dose assessment
- e. Protective action decision making
- f. Notifications and communications
- g. Implementation of protective actions
- h. Interaction with offsite officials, NRC, and other organizations

02.11 Operational Support Center (OSC). Observe and evaluate the performance of licensee emergency response personnel in the OSC as they perform the following activities during a drill or exercise:

- a. Staffing and activation of the OSC
- b. Facility management and control
- c. Performance of support functions
- d. Provide personal protection for workers

02.12 Offsite Monitoring. Observe and evaluate the performance of licensee offsite monitoring teams as they perform the following activities during a drill or exercise:

- a. Activation and deployment of the monitoring teams
- b. Surveys, sampling and analysis

02.13 Corrective Action or Rescue Teams. Observe and evaluate the performance of licensee corrective action and rescue teams as they perform the following activities during a drill or exercise:

- a. In-plant repair actions
- b. Rescue operations
- c. Ensuring personal safety

02.14 Security and Accountability. Observe and evaluate the licensee's security practices during a drill or exercise:

- a. Security
 - 1. Radiological release scenario response
 - 2. Hostile action-based scenario response
- b. Accountability

02.15 Emergency News Center (Joint Public Information Center). Observe and evaluate the performance of licensee emergency response personnel in the Emergency News Center (Joint Public Information Center or JPIC) as they perform the following activities during a drill or exercise:

- a. Staffing, activation, and facility control as applicable
- b. Processing and dissemination of information to the media
- c. Coordinating information and messages with offsite public information personnel

02.16 Onsite Emergency Medical Services. Observe and evaluate the performance of the licensee's onsite medical response team during a drill or exercise.

02.17 Post-Accident Sampling (PASS) (or the licensee's equivalent capacity) Team. Observe and assess the performance of the PASS (or the licensee's equivalent capacity) team during a drill or exercise.

02.18 Provide inspection information on the results of drill evaluation to support the determination of whether the licensee's EP program is operationally ready.

82002.04-03 INSPECTION GUIDANCE

General Guidance

This attachment must be used to inspect exercises being presented by the licensee or for the purpose of establishing confidence that the inspection objectives are met. The guidance of this procedure must be used to structure the inspection.

Interference with the players or the controllers by NRC evaluators should not occur, nor should the controllers prompt, coach, or otherwise interfere with the performance of the players. NRC evaluators must seek information from the controllers regarding the drill, but should not interact with the players directly.

The inspectors shall become familiar with the scenario prior to arrival on site to understand how to evaluate the licensee's exercise. Review any changes made to the scenario and tour the facilities to become familiar with equipment, displays, procedures and supplies to be used to perform the evaluated tasks.

It is appropriate to review the scenario and the scenario objectives with the licensee to ensure licensee efforts will support the inspection procedure objectives. The guidance of Attachment(s) 82002_03 and 82002_5 of this procedure may be helpful in describing appropriate elements of a challenging scenario.

The licensee shall keep the scenario confidential. If confidentiality is not maintained, the inspection may be postponed until a later date when a confidential scenario is available for use.

The use of a simulator is desirable during these drills, but is not mandatory. The decision to use the simulator should be left to the licensee. However, it may be pointed out that the realism of the simulator would aid shift personnel in recognizing emergency conditions.

Evaluations conducted in accordance with this procedure are limited to the staff, activities, records, and facilities of the licensee. Where necessary to verify licensee performance, concerning interactions with organizations and persons involved in offsite emergency preparedness, inspectors are to limit their activities to reviews of pertinent records available through the licensee. If additional information is needed about offsite emergency preparedness, it can be obtained from FEMA.

The general practices for a team inspection are to be used for the planning and conduct of this inspection and for the preparation of the inspection report. During an exercise or drill, observation and evaluation of licensee performance in the control room, TSC, OSC, EOF and JPIC, as appropriate, is required.

There are three aspects of the drill to consider. The first is the development of a technically accurate and challenging scenario to test the plans, procedures, equipment, and implementation of the licensee's emergency response capabilities. The second part is the implementation of the plans and procedures. The last aspect is the critique following the exercise or drill in which the licensee makes a candid self-evaluation in terms of (1) the scenario, (2) the adequacy of the emergency equipment, facilities, and procedures, (3) the players' responses, and (4) the effective use of evaluators and controllers.

Specific Guidance

03.01 This attachment should be performed in conjunction with the performance of IP 65001, "Inspections of Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Related Work, "Attachment 65001.18, "Inspection of Emergency Planning ITAAC, section 02.14, "Exercise and Drills." As noted in IMC 2504, "Construction Inspection Program- Inspection of Construction and Operational Programs," section 2504-03, "Applicability," IMC 2504 inspections are to be performed in parallel with, but independent of, IMC 2503, "Construction Inspection Program: Inspections of Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Related Work." The concurrent performance of these two emergency preparedness inspection procedures is relevant, as they share a common inspectable area. Hence, the results of each inspection (i.e., those inspection procedures mandated under the requirements of IMC 2503 and IMC 2504) may be documented in the same inspection report, if acceptable to the inspector.

03.02 The requirements for exercises are found in 10 CFR 50.47(b)(14) and 10 CFR Part 50, Appendix E, Part IV.F. During the exercise, develop independent observations of licensee performance in classification, notification, PAR development, dose assessment activities and other areas selected. Identify any apparent performance weakness(es). Gather copies of completed forms and checklists that support or document classification, notification and PAR development activities and other areas selected for inspection. Inspector-identified weaknesses must be held confidential until after the formal licensee critique. The inspector must ensure that the licensee critique

conclusions are complete, including management review, before discussing inspector observations and conclusions.

Evaluation of exercises at sites with co-located licensees introduces additional inspection requirements. These requirements are found in 10 CFR Part 50, Appendix E, Paragraph IV.F.2.c and generally involve drills, training, and activities/interactions with offsite authorities (Regulatory Guide 1.101, "Emergency Response Planning and Preparedness for Nuclear Power Reactors," Revision 5, June, 2005, provides additional guidance). The inspection plan should provide for the verification that these activities are conducted, properly observed, and where appropriate, critiqued by licensee personnel. It should be noted that NRC inspectors do not evaluate offsite agency performance, but will rather focus on the interface of licensee personnel with offsite agencies. However, any observed offsite performance weaknesses that impact the licensee's ability to implement the onsite Emergency Plan should be shared with the FEMA evaluation team for further assessment.

03.03 The inspectors should familiarize themselves with the licensee's critique process and discuss expectations with the licensee. This discussion should include the critique scheduling, content, and participation, as well as the inspector's need to know when the critique process is complete. The NRC considers the critique process complete when all draft conclusions related to the RSPS performance deficiencies have been presented to licensee senior management, and any management questions or comments have been resolved. The licensee should understand that the critique should not be delayed in order to address every minor problem identified.

The inspectors should conduct a pre-critique briefing with the EP staff/management prior to the formal critique to discuss any non-exercise-related inspection observations/findings, and to obtain the licensee's preliminary critique of the exercise results. This meeting will aid the inspector in preparation for the formal exit meeting with licensee senior management (typically conducted following the formal critique), and allow the licensee to focus the formal critique on the RSPS. The inspectors cannot share the NRC exercise observations at this meeting, even if they are consistent with the licensee's preliminary critique. The inspectors should stress at this meeting that for inspection purposes, the formal critique need only address performance deficiencies related to the RSPS, and any change in evaluation since the pre-critique discussion. The balance of the critique presentation is determined by the licensee's process.

Determine if the licensee critique identified the weaknesses observed by the inspection team. If the inspectors identified weaknesses that the licensee did not, it may represent a critique failure (i.e., an exercise critique problem) or the inspectors may have misinterpreted exercise participants' activities, or did not observe a portion of those activities. It may be appropriate to discuss such problems with cognizant licensee staff and management rather than with the full audience of the formal critique. Licensee critique failures shall be documented and assessed for significance. The NRC should discuss its findings that the licensee did not identify in its critique during the NRC exit meeting. Verify that licensee-identified exercise weaknesses are entered into the licensee corrective action system in a manner that will allow NRC review of the resolution in the future (i.e., during subsequent biennial exercises).

03.04 During the exercise or drill a failure to implement a planning standard does not necessarily indicate a failure to meet the planning standard. However, serious failures may indicate a programmatic problem worthy of additional review.

The Emergency Plan contains the licensee's means to comply with NRC regulations. The Emergency Plan Implementing Procedures (EPIPs) are the licensee's methods of implementing those means and may be used to judge effective, timely, and accurate

implementation. If either the Plan or the procedures are inadequate, it is not a drill/exercise critique issue. Rather, it is a failure to comply with a planning standard, and the applicable planning standard should be used to assess significance. Licensee mistakes and mis-steps that only detract from implementation should not initially be considered weaknesses. Mistakes are likely to happen in the course of an exercise, and when such mistakes are corrected by the ERO, it reveals an organizational strength rather than a weakness. The concern and the results of the additional review should be communicated to the licensee, documented and assessed for significance.

03.05 The lead inspector, or alternate, should represent NRC at the FEMA public meeting. A statement should be made as to the adequacy of exercise conduct from the NRC perspective. A statement such as “the preliminary observation of the inspection team is that conduct of the exercise was adequate and supports licensee compliance with the requirements of the applicable emergency planning standards: Demonstration that reasonable assurance exists that the licensee can effectively implement its emergency plan to adequately protect the public health and safety in the event of a radiological emergency” is the preferred statement to be used at the FEMA public meeting. Potential findings against the licensee’s program (i.e., against the exercise critique) as a result of the inspection should not be announced at the public meeting.

For the case where exercise conduct did not demonstrate support of the Performance Expectation, a statement such as the following should be made at the public meeting: “The NRC inspection team was not able to conclude its review of the exercise. NRC will continue to review the available information before issuing an inspection report.” NRC inspection reports are public information and will be released as soon as they are approved by management.

03.06 Request NRC Headquarters to promptly inform the regional office of any potential deficiencies and remedial actions when notified by FEMA Headquarters per the “NRC/FEMA Memorandum of Understanding.”

Upon receipt of the letter providing official notification of offsite exercise deficiencies, review the proposed deficiencies and their bases for understanding. FEMA review and findings are entitled to a presumption of adequacy and are to be taken at face value. If the basis for any deficiency is not clear or if the reviewer is aware of information to the contrary, obtain clarification from NRC Headquarters staff, Regional State Liaison Officers (RSLOs), or regional FEMA staff.

Inform the licensee of offsite deficiencies via formal letter.

03.07 The programmatic EP inspection program is predicated on the licensee’s compliance with the applicable emergency preparedness planning standards, primarily in this case 10CFR50.47(b)(14); and its ability to transition (and meet) the reactor oversight process (ROP) EP Cornerstone Performance Expectation. The inspectors should determine that the conduct of the exercise supports the finding that the EP program meets the Performance Expectation: “Demonstration that reasonable assurance exists that the licensee can effectively implement its Emergency Plan to adequately protect the public health and safety in the event of a radiological emergency.”

03.08 Control Room

Inspections at the Control Room must consider the following questions and factors:

- a. Facility Management and Control. Does the shift supervisor coordinate and oversee control room response, redirecting the response as necessary? Are actions performed in accordance with applicable procedures and instructions?
- b. Analysis of Plant Conditions and Corrective Actions. Are control room operators able to correctly interpret control room instrument displays? From the control room instrument displays and other sources of available information, are operators able to recognize that events are progressing abnormally, determine plant status and develop appropriate strategies to bring the plant to a safe shutdown condition if necessary?
- c. Detection and Classification of Emergency Events. Are control room operators able to classify an emergency using emergency action levels (EALs) on the basis of plant conditions and confirm (where possible) the emergency classification by dose calculations or monitoring? After recognizing and classifying the emergency, do control room operators correctly implement the immediate actions of the emergency plan implementing procedures (EIPs)?
- d. Protective Action Decision-Making and Recommendations. After classifying an event, are control room operators able to determine protective actions for onsite and offsite licensee personnel without waiting for a dose assessment? Do they recommend onsite and offsite protective actions, on a timely basis, that are consistent with those in the approved onsite emergency plan and the EIPs? (Guidance on protective actions is provided in Appendix 1 and Supplement 3 of NUREG-0654.) To the extent that time permits, the licensee must consider the following in promptly recommending appropriate offsite protective actions:
 - 1. Current plant status
 - 2. Status of hostile actions or security threats
 - 3. Current dose assessment and dose projection
 - 4. Expected duration of release
 - 5. Evacuation time estimates
 - 6. Local sheltering efficiencies
 - 7. Current meteorological parameters (wind speed, wind directions, and stability class) and projected weather conditions
 - 8. Local geography
 - 9. Time of day
- e. Notifications and Communications
 - 1. Are onsite personnel promptly notified of the following:

- (1) Emergency conditions
 - (2) Emergency classifications
 - (3) Activation of the emergency organization and facilities
 - (4) Protective actions
 - (5) Radioactivity release status
 - (6) Any changes in these conditions
2. Are offsite officials, including NRC, promptly notified of the following:
- (1) Emergency conditions
 - (2) Emergency classifications
 - (3) Activation of the emergency organization and facility
 - (4) Radioactivity release status
 - (5) Potentially affected population
 - (6) Projected population doses
 - (7) Recommended protective actions
 - (8) Any changes in these conditions
3. Are communications links established and maintained between the control room, the TSC, the OSC, and the NRC, if requested? Are knowledgeable staff members available to notify licensee personnel and State and local authorities of an emergency and to maintain communications within 15 minutes after the emergency is declared? Are Federal authorities notified within 1 hour of emergency declaration? Is the Emergency Response Data System (ERDS) activated within 1 hour of event declaration for Alert and above?
- f. Implementation of Onsite Protective Actions. The control room initiates onsite protective actions until the TSC or the EOF is activated.
1. For a Site Area Emergency or a General Emergency, does the Control Room evacuate nonessential personnel (may be simulated) from the site to the offsite locations(s) specified in the emergency plan? Are appropriate protective measures initiated for those personnel remaining on site (e.g., accountability, protective clothing, potassium iodide (KI))?

2. For a General Emergency with imminent major releases projected, is evacuation of nonessential onsite staff directed without monitoring or decontaminating them? For General Emergencies in which major releases are not imminent, is evacuation initiated following monitoring and decontamination? Is the licensee able to accomplish the initial accountability within 30 minutes of the order for the assembly of all nonessential personnel and able to account for all remaining personnel continuously thereafter? Does the licensee periodically assess the habitability of the control room and assembly areas?
- g. Dose Assessment. Are approved procedures for dose assessment available and do personnel know how to use them? If a release is anticipated or in progress, are control room personnel able to correctly and rapidly assess and integrate information from the reactor system's status and trends, source-term assumptions, post-accident sampling system (PASS) (or the licensee's equivalent capacity) samples, and meteorological information to define the magnitude and location of the onsite and offsite impact? These assessments need not be as sophisticated or as accurate as dose projections made by the TSC or the EOF but are to be sufficiently accurate to determine onsite protective actions and offsite protective action recommendations as necessary. If a release is under way, do personnel promptly initiate onsite sampling and monitoring to confirm the composition of the releases (i.e., iodine fraction), to better define the source term and to confirm projected doses? Is dose assessment performed in the TSC or the EOF once these facilities are activated?
- h. Evaluation of Post-Accident Sampling Results (or the licensee's equivalent capacity). If appropriate, does the control room request that a post-accident containment air or primary water sample be obtained to confirm the composition of any release (i.e., iodine fraction)? The results of the samples would be used to redefine or confirm the condition of the reactor, the emergency classification, the source term, and projected doses. Post-accident sampling may be directed from the TSC after this facility has been activated.
- i. Dispatch and Coordination of Monitoring Teams. If a release is anticipated or in progress, does the Emergency Director deploy teams to perform environmental sampling at appropriate locations to characterize the size, location, and intensity of the plume? (The teams could be asked to take measurements of radiation levels, radioiodine or gross beta levels in the air, or to collect samples of water, vegetation and milk to determine the concentrations of radionuclides in these samples. Onsite and offsite monitoring may be directed from the TSC or the EOF after these facilities have been activated.)

03.09 Technical Support Center (TSC). Are approved plant procedures current, readily available and used in the TSC? Does the TSC keep the EOF informed of the status of the emergency? Are proper functions transferred from the TSC to the EOF when that facility becomes operational? Are all concerned parties notified of such a transfer? Is the TSC equipped to perform intended functions? Are job aids, such as status boards, accurate and kept current?

- a. Staffing and Activation of the TSC. Does the licensee staff the TSC in accordance with applicable guidance and in accordance with applicable plans and procedures? (Guidance on the staffing of the TSC can be found in Table 2 of Supplement 1 to NUREG-0737, "Clarification of TMI Action Plan Requirements - Requirements for Emergency Response Capability." The licensee's staffing of the TSC can be found in site emergency plans or implementing procedures.) Are the personnel performing key functions knowledgeable in their duties and responsibilities? Are relief personnel properly and adequately briefed?

- b. Facility Management and Control. Are congestion and noise levels kept to a minimum? Are bound or other permanent-type logs kept and all important data, calculations, notifications, and decisions recorded as they occur? For Alerts, Site Area Emergencies and General Emergencies, is the TSC activated and prepared to perform the following functions within about 1 hour after an emergency is declared:
 - 1. Manage site activities
 - 2. Provide technical support to reactor operations
 - 3. Manage corporate emergency resources (These functions are normally transferred to the EOF after it is activated)
 - 4. Manage radiological effluent and environs monitoring and dose projections (Monitoring and dose projections are normally transferred to the emergency operations facility (EOF) after it is activated)

- c. Accident Assessment and Classification. Does the TSC staff perform the following tasks normally performed by the staff in the TSC:
 - 1. Use EALs, as appropriate, to classify the emergency
 - 2. Initially assess and continuously reassess reactor conditions
 - 3. Confirm the emergency classification or reclassify the emergency
 - 4. Maintain an overview of the reactor and plant conditions using the expertise of technical staff and the information provided by them or from other sources
 - 5. Use the results of post-accident sampling or monitoring, as appropriate, to redefine reactor conditions and the emergency classification
 - 6. Provide this information to proper personnel (control room, EOF, NRC, offsite authorities, corporate management, etc.)

- d. Dose Assessment. If a release is in progress, do TSC personnel promptly initiate onsite and offsite sampling and monitoring to confirm the composition of the release (i.e., iodine fraction), and to define the source term and projected doses? If a release is anticipated or in progress, do TSC personnel correctly assess and integrate information from the reactor system's status and trends, radiological monitoring, source-term assumptions, and meteorological information to define the magnitude and location of the onsite and offsite impact? Do TSC personnel use the results of post-accident sampling and radiological monitoring to redefine projected doses, as appropriate? Are approved procedures for dose assessment available and do personnel know how to use the procedures?
- e. Protective Action Decision Making. As appropriate, do TSC personnel use plant conditions to decide on protective actions for onsite and offsite personnel without waiting for a dose assessment? Do TSC personnel promptly recommend protective actions onsite and offsite consistent with the criteria in the approved onsite emergency plan? It is expected that within 15 minutes of the classification of General Emergency conditions, TSC personnel (or control room personnel if the TSC is not staffed and functional) recommend appropriate protective actions to offsite officials. (Guidance on protective actions is provided in Appendix 1 and Supplement 3 of NUREG-0654.) To the extent that time permits, the licensee must use the following parameters for determining appropriate protective actions:
1. Current plant status
 2. Current dose assessment and dose projection
 3. Expected duration of release
 4. Evacuation time estimates
 5. Local sheltering efficiencies
 6. Current meteorological conditions (wind speed, wind direction, and stability classification) and projected weather conditions
 7. Local geography
 8. Time of day
- f. Notifications and Communications
1. Are all communications systems functioning properly?
 - (1) Does the TSC establish and maintain a primary communications link with the control room?

- (2) Do TSC personnel communicate frequently with each other and with other centers, especially with the control room?
 2. Does the TSC promptly notify onsite personnel of the following:
 - (1) Emergency conditions
 - (2) Emergency classification
 - (3) Activation of the emergency organization and facility
 - (4) Protective actions
 - (5) Radioactivity release status
 - (6) Any changes in these conditions
 3. Are follow-up notifications of the emergency to Federal, State, and local emergency response organizations and recommendations for public protective actions made as required? (This function is normally transferred to the EOF after it is activated).
- g. Implementation of Protective Actions. Does the responsible TSC staff perform the following expected tasks:
1. Confirm that the onsite protective actions above have been implemented
 2. Direct that accountability of onsite personnel is performed.
 3. Confirm that all personnel are accounted for and, if not accounted for, begin search and rescue for missing personnel (initial accountability is normally completed within about 30 minutes of the declaration of the emergency). The licensee is to be able to account for onsite personnel continuously thereafter.
 4. Confirm and periodically assess the habitability of the TSC, the OSC, and assembly areas. Functions of the TSC are to be transferred to habitable areas if necessary.
 5. Confirm that offsite authorities are aware of the licensee's recommendations for protective actions.
 6. Determine from the offsite authorities what, if any, protective decisions are being made.
 7. Inform management and NRC of these actions
- h. Assistance and Support to the Control Room. Does the TSC coordinator (the person in charge) oversee the analysis and corrective action response? Are

actions performed in accordance with approved procedures? Performance of other functions should not interfere with direction or determination of corrective action. Are corrective actions implemented in an effective and timely manner? Are potential offsite consequences of corrective actions considered and discussed with offsite officials? Are the resources necessary to perform the required analyses available? Are those performing the analyses and making decisions aware of important trends or changes of status. Are job aids, such as status boards, used effectively and in a manner not to interfere with the performance of corrective actions? Do those in charge of operations, maintenance, and radiation protection consult frequently and as necessary with each other and with offsite members of licensee's emergency response support organizations (e.g., consultants, corporate personnel, and contractor personnel) about corrective actions?

- i. Evaluation of Post-Accident Sampling (or the licensee's equivalent capacity) Results. If appropriate, does the TSC request that post-accident containment air or primary water samples be obtained to confirm the composition of any release (i.e., iodine fraction) and use the results of the post-accident sampling to redefine or confirm the condition of the reactor, the emergency classification, the source term, and projected doses, as appropriate?
- j. Dispatch and Coordination of Environmental Monitoring Teams. If a release is anticipated or is in progress, does the TSC deploy an initial environmental sampling team(s) to appropriate locations to (1) intercept the plume, (2) direct the team(s) regarding geographical movement (e.g., remain at pre-designated locations, go to the approximate center, begin a traverse from location to location), (3) direct the teams regarding measurements or samples to be taken (e.g., gross beta (β^-), air, water, vegetation, milk, thermoluminescence dosimeters (TLDs)), and (4) use results of monitoring to redefine the source term and projected doses, as appropriate?

03.10 Emergency Operations Facility (EOF). Are the correct functions transferred to the EOF in a timely manner when the EOF becomes operational? Are all concerned parties notified of such a transfer? Are plant procedures used in the EOF current, readily available and reviewed and approved as required? Is the EOF properly equipped to perform intended functions? Are job aids, such as status boards, accurate and kept current? For Site Area Emergencies and General Emergencies, is the EOF activated and prepared to perform the following functions within about 1 hour after an emergency is declared:

- a. Staffing and Activation of the EOF. Does the licensee staff the TSC in accordance with applicable guidance and in accordance with applicable plans and procedures? (Guidance for staffing of the EOF is specified in Table 2 of Supplement 1 to NUREG-0737 and the licensee's staffing is listed in the site emergency plans or implementing procedures. Personnel should not be prepositioned before commencement of the exercise.) Are the personnel performing key functions knowledgeable in their duties and responsibilities? Are relief personnel properly and adequately briefed?

b. Facility Management and Control

1. Are congestion and noise levels kept to minimum?
2. Are bound or other permanent-type logs kept and all important data, calculations, notifications, and decisions recorded chronologically?
3. At the request of personnel in the TSC, the control room, or other locations, are outside resources obtained in a timely manner and managed from the EOF? (Before activation of the EOF, this function may have been initiated at the TSC.)
4. Does the EOF manage dose projections and overall monitoring of radiological effluent and the environs? (Before activation of the EOF, this function may have been performed at the TSC.)

c. Accident Assessment and Classification. Are personnel activating the EOF able to adequately and accurately perform the following tasks:

1. Use EALs, as appropriate, to classify an emergency.
2. Initially assess and continuously reassess reactor conditions.
3. Confirm the emergency classification or reclassify the emergency.
4. Maintain an overview of the reactor and plant conditions using the expertise of the staff and the information provided by them or other sources.
5. Use the results of post-accident sampling (or the licensee's equivalent capacity) or monitoring, as appropriate, to redefine reactor conditions and the emergency classification.

d. Offsite Dose Assessment. If a release is anticipated or is in progress, does the EOF correctly assess and integrate information from the reactor system's status and trends, radiological monitoring, source-term assumptions, and meteorological information to define the magnitude and location of the offsite impact? If a release is anticipated or in progress, does the EOF deploy an initial environmental sampling team(s) to appropriate locations to (1) intercept the plume, (2) direct the team(s) regarding geographical movement (e.g., remain at a predesignated location, go to the approximate center, begin a traverse from location to location), and (3) direct the team(s) regarding measurements or samples to be taken (e.g., gross beta, air, water, vegetation, milk, TLDs)? Are the results of monitoring used to redefine the source term and projected doses as appropriate? Is the EOF able to promptly and correctly project the direction and maximum dose within the plume emergency planning zone (EPZ) and the distance to which the EPA's protective action guidelines (PAGs) are projected to be exceeded? Does EOF staff, responsible for protective action recommendations, communicate with the reactor systems' status personnel to

comprehend plant status and trends and anticipate radiological consequences as events progress? Does the EOF obtain necessary current and forecasted meteorological information from onsite systems and appropriate offsite sources (e.g., supplemental systems, the National Weather Service)? Does the EOF assure that assessments are updated as tangible changes in plant status, release, or meteorological conditions become evident, are forecasted, or are refined from confirmatory measurements? Are current approved procedures used for dose assessment and do personnel know how to use them? Is a backup dose assessment system available if the primary system fails? Is the staff trained in using the alternate system?

- e. Protective Action Decision Making. As appropriate, does the EOF assess the status of the reactor core, reactor systems and containment to recommend offsite protective actions without waiting for a dose assessment? (Before activation of the EOF, this function may have been initiated at the TSC.) Does the EOF promptly recommend offsite protective actions that are consistent with those in the approved offsite emergency plan? (Guidance on protective measures are found in Appendix 1 and Supplement 3 of NUREG-0654.) To the extent that time permits, the EOF must consider the following in determining what protective actions are appropriate:
 - 1. Current reactor and plant status
 - 2. Prognosis of accident
 - 3. Expected duration of release
 - 4. Evacuation time estimates
 - 5. Local sheltering efficiencies
 - 6. Current and projected weather conditions
 - 7. Local geography
 - 8. Time of day

- f. Notifications and Communications
 - 1. Do EOF personnel communicate frequently with each other and with other centers (especially with offsite authorities)? Is a primary communications link with the TSC established and maintained? Do personnel in the EOF also communicate with the NRC Site Team? Do all primary communications systems function properly and, if they do not, are backup systems available? Does the EOF establish and maintain a communications channel to offsite authorities, including the NRC?

 - 2. If not already accomplished by TSC or control room personnel, are offsite officials, including NRC, promptly informed of the following:

- (1) Emergency conditions
 - (2) Emergency classification
 - (3) Radioactivity release status
 - (4) Potentially affected population
 - (5) Projected population doses
 - (6) Recommended protective actions
 - (7) Any changes in these conditions
3. Do responsible personnel in the EOF notify Federal, State and local emergency response organizations of the emergency, and make recommendations for public protective action
- g. Implementation of Protective Actions. Does the EOF confirm and periodically assess the habitability of the EOF? If the EOF has to be evacuated, its functions are to be transferred to alternate facilities without disruption of offsite interaction, command and control, dose projections, or protective action decision-making. Does the EOF confirm that offsite authorities are aware of the EOF's recommendations for protective actions decisions? Does the EOF determine from the offsite authorities what, if any, offsite protective actions decisions are being made/implemented? Does the EOF keep licensee management and NRC informed of offsite protective actions? Is the EOF aware or informed of the status of offsite protective actions decisions?
- h. Interaction with Offsite Officials. Are the offsite representatives at the EOF and the site briefed upon arrival and kept informed of changing conditions without interfering with the onsite response? Are offsite monitoring and sampling results coordinated with offsite officials?

03.11 Operational Support Center (OSC). Is the OSC properly equipped to perform intended functions? Is reliable voice communication established and maintained with the control room, the TSC, and the EOF? Is habitability of the OSC confirmed and periodically assessed? If need be, are the functions of the OSC transferred to a more habitable area? Do all primary communications systems to the TSC, the EOF and the repair teams function properly and if they do not, are backup systems available?

- a. Staffing and Activation of the OSC. Is the OSC adequately staffed, activated, and fully functional? Are OSC personnel assigned to the OSC identified in the Emergency Plan and/or the implementing procedures? Guidance on staffing is presented in Table 2 of Supplement 1 to NUREG-0737. Are relief personnel properly and adequately briefed?

- b. Facility Management and Control. Are operations at the OSC supervised by licensee officials pre-designated in the emergency plan and procedures? Is the manager-in-charge knowledgeable of his or her duties and responsibilities? Are congestion and noise levels kept to a minimum? Is the OSC staff periodically briefed on plant and radiological conditions? Are personnel who will perform specific tasks as requested by management, the TSC, or the control room assigned in a timely manner and given clear instructions? Are teams dispatched from the OSC briefed, tracked, and debriefed upon return to the OSC? Is a pre-implementation planning meeting involving operations, maintenance, and health physics held to reduce exposure by means of appropriate tool selections, routes of travel, development of temporary procedures, etc.? (These actions may be performed in the TSC or the control room.) Are exposure and exposure limits of personnel considered in planning activities. (These actions may be performed in the TSC or the control room.)
- c. Performance of Support Functions. Is communication maintained with the teams dispatched from the OSC? For conditions requiring iodine protection, do personnel promptly implement appropriate iodine-protective measures (use appropriate respiratory protection or take KI)? Normal plant configuration and activity controls should be in effect whenever practicable. Are in-plant teams fully aware of procedural provisions for performing activities? (Procedure adherence is required unless authorization to deviate is specifically provided. If normal use of procedures is impracticable, or if assigned activities cannot be accomplished using existing/available procedures, the extent of authorized and implemented deviation from procedures is to be clearly identified to and clearly reported by the activity performers.) Also, to the maximum practicable extent, are deviations from prescribed system/component line-ups or alignments documented, and identified to the responsible control room, TSC, and EOF staffs?

03.12 Offsite Monitoring

- a. Activation and Deployment of Monitoring Teams. Is the licensee staff capable of performing offsite surveys and prepared to implement their expected functions in a timely manner. Are vehicles available and readily accessible to transport the teams and capable of functioning under adverse weather conditions? Are instruments calibrated instrumentation and equipment available for monitoring and obtaining samples? Is instrumentation to detect radioiodine at levels as low as 10^{-7} $\mu\text{Ci/cc}$ under field conditions available? Are teams equipped with an adequate communications system (e.g., a radio that permits unimpeded transmission and reception of data and instructions over the entire plume emergency planning zone (EPZ))? Are teams adequately briefed on radiological conditions, their mission and plant conditions before they are dispatched? Are monitoring teams dispatched in a timely manner? (Personnel should not be prepositioned before commencement of the exercise.)
- b. Surveys, Sampling and Analysis. Are team members able to demonstrate proficient use of protective equipment such as protective clothing and respirators? Are teams able to quickly locate sampling and monitoring locations

(for example, predetermined sample sites)? Do team members exhibit proficiency in collecting, bagging and marking samples, and in reading monitoring results in accordance with procedures (e.g., open and closed G.M. window readings, where appropriate)? Are teams kept informed of changing conditions in the field? Do team members keep track of their individual radiological exposures? Are monitoring results promptly and correctly reported to the TSC and/or the EOF?

03.13 Corrective Action or Rescue Teams. Are team actions initiated and performed promptly following the decision to conduct an operation? Before entry, does the team consult and coordinate with the control room and receive a briefing on potential hazards. Is the team provided with adequate protective equipment such as self-contained breathing apparatuses (SCBA) with sufficient stay times, and monitoring equipment with sufficient ranges (e.g., up to 1000 R/hour)? Are team exposures monitored constantly to ensure accepted guidelines or pre-established values are not exceeded. Is communication with the team maintained by the control room, the TSC, or the OSC? Are team personnel qualified by training and/or experience to perform the job specified, in a high radiation environment, and are they trained in the use of the appropriate protective equipment? Are team personnel able to demonstrate proficiency in the use of protective equipment?

03.14 Security and Accountability

- a. Is access control maintained at the site in a manner not to interfere with the response to an emergency (e.g., response of offsite assistance is not hindered)? Are security practices or procedures such that they do not impede movement and access of site operating and response personnel to plant areas during an emergency situation (e.g., computer-controlled doors to vital areas fail in the open position upon loss of electrical power, essential personnel have keys to locked doors or can easily obtain keys, anti-passback features do not hinder reentry)? Are practices or procedure to allow easy access during emergencies compatible with the licensee's Security Plan developed in accordance with 10 CFR Part 73 and 10 CFR 73 Appendix C? Is access control maintained at the control room, the OSC, the TSC, and the EOF? Are security personnel monitored for exposure and appropriate protective actions taken as appropriate?
- b. Are all onsite personnel accounted for and the names of missing individuals identified within about 30 minutes of the declaration of a Site Area Emergency or a General Emergency? Is a search-and-rescue operation initiated promptly for missing people? Are all onsite personnel continuously accounted for during the emergency response?

03.15 Emergency News Center (Joint Public Information Center)

- a. Is information disseminated to the media/press by the licensee accurate and timely? Are news releases properly coordinated with the NRC and other offsite officials? Do the licensee spokesperson(s) coordinate message for media briefings with other spokespersons to ensure messages are consistent? Are media personnel prohibited from interfering with the emergency response? Is

corrected or supplemental information promptly released in the event of error or misinformation in news stories (e.g., rumor control)? Is information given to the public by the licensee prepared to a level that the public can understand? Is news updated periodically whether or not the status has changed?

- b. Are adequate numbers of telephones available for press use? Are licensee personnel providing the briefings technically qualified and able to answer media questions accurately and quickly?

03.16 Onsite Emergency Medical Services

- a. Is appropriate consideration given to first aid treatment of the victim(s) and associated radiological hazards? Are first aid treatment and decontamination efforts commensurate with the extent of the injuries? To the extent possible, are radiological control efforts used onsite and during transport to offsite medical facilities?
- b. Are offsite medical facilities informed, in advance of a victim's arrival, of both medical and radiological conditions? Is pertinent medical and radiological information provided to offsite responders and/or medical facility staff?
- c. Does a qualified radiological control technician accompany the injured person to the hospital? Are hospital personnel adequately briefed by the radiological control technician on the extent of the injury and on any contamination levels?

03.17 Post-Accident Sampling (or the licensee's equivalent capacity) Team When the licensee analyzes the post-accident primary coolant and containment atmosphere samples, required exposure limits for the in-plant team operations are to be maintained. The team is to be qualified and capable to take and analyze coolant and containment atmosphere samples under emergency conditions. The team is to be able to proficiently implement the post-accident sampling procedure, wear, or simulate the wearing of, the appropriate protective clothing and equipment (e.g., SCBA), and follow the appropriate radiation protection procedures. Are appropriate tools used, and samples properly transported? Are samples analyzed using the appropriate precautions to prevent personnel exposure and contamination of the lab? Are samples analyzed for noble gases, radioiodine, cesium, nonvolatile isotopes, hydrogen, chlorides, and boron? Are the results of these analyses available in the TSC within a time frame consistent with the commitments in the emergency plan (This is generally three hours after the samples are requested, but individual licensee commitments should be verified)?

03.18 No inspection guidance.

82002.04-04 RESOURCE ESTIMATE

It is estimated that conduct of this attachment will take 120 hours.

Exhibit 1

Revision History for IP 82002.04

Commitment Tracking Number	Issue Date	Description of Change	Training Needed	Training Completion Date	Comment Resolution Accession Number
N/A	11/08/2011 CN 11-030 ML111040305	Initial issue to support inspections of construction programs described in IMC 2504, Construction Inspection Program: Inspection of Construction and Operational Programs. Completed 4 year search of historical CNs and found no commitments related to this Inspection Procedure.	None	N/A	N/A