

# NRC INSPECTION MANUAL

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## INSPECTION PROCEDURE 82301

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### EVALUATION OF EXERCISES FOR POWER REACTORS

PROGRAM APPLICABILITY: 2513, 2514, 2515

SALP FUNCTIONAL AREA: PLANT SUPPORT (PLTSUP)

#### 82301-01 INSPECTION OBJECTIVE

To assess the adequacy of the licensee's emergency response program, the implementation of the emergency plan, the emergency plan implementing procedures, and the training program for emergency response.

#### 82301-02 INSPECTION REQUIREMENTS

02.01 Verify that the emergency preparedness exercise or drill meets the licensee's (or applicant's) commitments and regulatory requirements.

02.02 Control Room. Observe and evaluate the performance of licensee (or applicant) 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.
- e. Notifications and communications.
- f. Implementation of onsite protective actions.
- g. Dose assessment.
- h. Evaluation of post-accident sampling results.
- i. Dispatch and coordination of monitoring teams

02.03 Technical Support Center (TSC). Observe and evaluate the

performance of licensee (or applicant) emergency response personnel in the Technical Support Center, 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.
- f. Notifications and communications.
- g. Implementation of protective actions.
- h. Assistance and support to control room.
- i. Evaluation of post-accident sampling results.
- j. Dispatch and coordination of monitoring teams.

02.04 Emergency Operations Facility (EOF). Observe and evaluate the performance of licensee (or applicant) emergency response personnel in the Emergency Operations Facility, 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.

02.05 Operational Support Center (OSC). Observe and evaluate the performance of licensee (or applicant) emergency response personnel in the Operational Support Center, 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.

02.06 Corporate Command Center (CCC). Observe and evaluate the performance of licensee (or applicant) emergency response personnel in the Corporate Command Center, as they perform the following activities during a drill or exercise:

- a. Staffing and activation of the CCC.
- b. Performance of support functions.

02.07 Offsite Monitoring. Observe and evaluate the performance of licensee (or applicant) 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.

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

- a. In-plant repair actions.
- b. Rescue operations.

02.09 Security and Accountability. Observe and evaluate the licensee's (or applicant's) security practices during a drill or exercise:

- a. Security.
- b. Accountability.

02.10 Emergency News Center (Joint Public Information Center). Observe and evaluate the performance of licensee (or applicant) emergency response personnel in the Emergency News Center (Joint Public Information Center), 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.

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

02.12 Post-Accident Sampling Team (PASS). Observe and assess the performance of the PASS team during a drill or exercise.

02.13 Critique. Assess the licensee's (or applicant's) critique.

02.14 Public Meeting. Participate in a public meeting following the exit meeting with the licensee if the staff has determined that a significant break-down of the emergency preparedness program has occurred or there is strong public interest.

## General Guidance

This procedure is a part of the Emergency Preparedness (EP) CORE Inspection Program and is to be used to inspect the licensee's biennial, FEMA-observed exercise. Under the Plant Support Procedure for resident inspectors, this procedure is also to be used to observe selected exercises and drills. The region may decide to inspect a Utility-Only exercise because of concerns about declining utility performance in the area of EP. If this procedure is used for

Utility-Only exercises, or any other purposes, the time expended is required to be recorded as Regional Initiative.

Evaluations conducted in accordance with this procedure are limited to the staff, activities, records, and facilities of the licensee (or applicant). Where necessary to verify licensee (or applicant) 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 (or applicant). 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 (or applicant) performance in the control room, the TSC, OSC and the EOF, as appropriate, is required. However, consistent with Paragraph C. of Appendix I to Inspection Manual Chapter 2500, the regions may adjust the extent of observation in each area, as needed, to concentrate on areas where past licensee (or applicant) performance was considered marginal or in need of observation.

An exercise or drill is a training tool to prepare for an emergency. It is important to remember that there are three aspects to a successful exercise or drill. The first is the development of a technically accurate and challenging scenario to test the plans, procedures, equipment, and implementation of the licensee's (or applicant's) emergency response capabilities. The second part is the implementation of the plans, procedures, and equipment. The last aspect is the critique following the exercise or drill in which the licensee (or applicant) makes a candid self-evaluation in terms of (1) the scenario, (2) the adequacy of the emergency equipment, facilities, and procedures, (4) the players' responses, and (5) the effective use of evaluators and controllers, where applicable.

It is important that interference with the players or the controllers by observers or NRC evaluators not occur, nor should the controllers prompt, coach, or otherwise interfere with the performance of the players. NRC evaluators may query or seek clarifications or information from the controllers regarding the exercise, drill and/or the scenario.

In assessing the licensee's (or applicant's) performance, scenario-related problems are to be noted in the inspection report.

For exercises, these are to be discussed at the exit meeting.

### Specific Guidance

03.01 The requirement for Emergency Preparedness exercises are found in 10 CFR 50.47(14) and 10 CFR Part 50, Appendix E, Part IV.F.

#### 03.02 Control Room

- 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 these 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 (EPIPs)?
- d. Protective Action Decision Making. After classifying an event, are control room operators able to determine protective actions for onsite and offsite personnel without waiting for a dose assessment? Do they recommend protective actions on site and off site, on a timely basis, that are consistent with those in the approved onsite emergency plan and the EPIPs? Guidance on protective actions is provided in NUREG-0654. To the extent that time permits, the licensee (or applicant) should consider the following in promptly deciding appropriate offsite 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 parameters (wind speed, wind directions, and stability class) and projected weather conditions.

7. Local geography.

8. Time of day.

e. Notifications and Communications

1. Are onsite personnel promptly notified of the following:

(a) Emergency conditions.

(b) Emergency classifications

(c) Activation of the emergency organization and facilities.

(d) Protective actions.

(e) Radioactivity release status.

(f) Any changes in these conditions.

2. Are offsite officials, including NRC, promptly notified of the following:

(a) Emergency conditions.

(b) Emergency classifications.

(c) Activation of the emergency organization and facility.

(d) Radioactivity release status.

(e) Potentially affected population.

(f) Projected population doses.

(g) Recommended protective actions.

(h) Any changes in these conditions.

3. A communications link is to be maintained between the control room, the TSC, the OSC, and the NRC, if requested. A knowledgeable staff member is to be available to notify licensee (or applicant) personnel and State and local authorities of an emergency and to maintain communications within 15 minutes after the emergency is declared. Federal authorities are to be notified within 1 hour of emergency declaration and the Emergency Response Data System (ERDS) is to be 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,

nonessential personnel are evacuated (may be simulated) from the site to the offsite locations(s) specified in the emergency plan. Appropriate protective measures are initiated for those personnel remaining on site (e.g., accountability, protective clothing, KI).

2. For a General Emergency with imminent major releases projected, evacuation of nonessential onsite staff should be directed without monitoring or decontaminating them. For General Emergencies in which major releases are not imminent, evacuation should be initiated following monitoring and decontamination. Is the licensee (or applicant) 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? Habitability of the control room and assembly areas is to be assessed periodically by the licensee.
- 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) 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 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. If appropriate, the control room may 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, the Emergency Director may 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.

03.03 Technical Support Center (TSC). Are approved plant procedures current, readily available and used in the TSC? Is the EOF kept informed of the status of the emergency? Are proper functions transferred 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. Guidance on the staffing of the TSC can be found in Table 2 of Supplement 1 to NUREG-0737. The licensee's or (applicant's) staffing of the TSC can be found in site emergency plans or implementing procedures. 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, the TSC, through procedure, is designed to be 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. The following tasks are 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 is provided in NUREG-0654. To the extent that time permits, the licensee (or applicant) should 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?
  - (a) Does the TSC establish and maintain a primary communications link with the control room?
  - (b) Do TSC personnel communicate frequently with each other and with other centers, especially with the control room?
2. It is expected that the licensee promptly notifies onsite personnel of the following:
  - (a) Emergency conditions.
  - (b) Emergency classification.
  - (c) Activation of the emergency organization and facility.
  - (e) Protective actions.
  - (f) Radioactivity release status.
  - (g) 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. It is expected that responsible TSC staff perform the following tasks:
  1. Confirm that the onsite protective actions above have been implemented.
  2. Direct that all onsite personnel are accounted for.
  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 (or applicant) 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 actions are being taken.
  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 (or applicant's) emergency response support organizations (e.g., consultants, corporate personnel, and contractor personnel) about corrective actions?
- i. Evaluation of Post-Accident Sampling Results. If appropriate, does the licensee (or applicant) 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 licensee or applicant 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 predesignated 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 (B), air, water, vegetation, milk, TLDs), and (4) use results of monitoring to redefine the source term and projected doses, as appropriate?

03.04 Emergency Operations Facility (EOF). Are the correct functions transferred to the EOF in a timely manner, when this facility 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, the EOF should be activated and prepared to perform the following functions within about 1 hour after an emergency is declared:

- a. Staffing and Activation of the EOF. 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 in 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. Overall radiological effluent and environs monitoring and dose projections are normally managed from the EOF. (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 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 licensee (or applicant) 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 licensee (or applicant) 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 licensee (or applicant) able to promptly and correctly project the direction and maximum dose within the plume EPZ and the distance to which the EPA's PAGs are projected to be exceeded? Does licensee (or applicant) 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 licensee (or applicant) obtain necessary current and forecasted meteorological information from onsite systems and appropriate offsite sources (e.g., supplemental systems, the National Weather Service)? Does the licensee (or applicant) 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, the licensee (or applicant) is to 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 licensee (or applicant) promptly recommend offsite protective actions that are consistent with those in the approved offsite emergency plan? Guidance on protective measures are found in Appendix I of NUREG-0654. To the extent that time permits, the licensee (or applicant) should 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.

- d. Notifications and Communications

1. Do EOF personnel communicate frequently with each other and with other centers (especially with corporate headquarters and 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 licensee (or applicant) establish and maintain a communications channel to offsite authorities, including the NRC?
2. If not already accomplished by TSC or control room personnel, it is expected that offsite officials, including NRC, are promptly informed of the following:
  - (a) Emergency conditions.
  - (b) Emergency classification.
  - (c) Radioactivity release status.
  - (d) Potentially affected population.
  - (e) Projected population doses.
  - (f) Recommended protective actions.
  - (g) 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 (before activation of the EOF, this function may have been initiated at the TSC)?

g. Implementation of Protective Actions. Does the licensee (or applicant) 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 decisionmaking. Does the licensee (or applicant) confirm that offsite authorities are aware of the licensee's (or applicant's) recommendations for protective actions? Does the licensee determine from the offsite authorities what, if any, protective actions are being taken? Is licensee (or applicant) management and the NRC informed of these actions? Is the licensee (or applicant) aware or informed of the status of offsite protective actions?

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?

03.05 Operational Support Center (OSC). Is the OSC properly

equipped to perform intended functions? Is reliable voice communication established 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. The OSC is to be quickly staffed, activated, and fully functional. Are licensee (or applicant) 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 (or applicant) officials predesignated 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.) Exposure and exposure limits of personnel are to be considered in planning activities. (These actions may be performed in the TSC or the control room.)
- c. Performance of Support Functions. Is communication with the teams dispatched from the OSC maintained? 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?

03.06 Corporate Command Center (CCC). If called for in the emergency plan or procedures, is the Corporate Command Center



activated and prepared to perform its functions in a timely manner? Are congestion and noise levels kept to a minimum? Is the CCC properly equipped to perform intended functions? Are reliable voice communications established with the site (primarily the EOF)?

- a. Staffing and Activation of the CCC. Are licensee (or applicant) officials predesignated in the emergency plan or related procedures to manage operations? Is the senior manager knowledgeable of his or her duties and responsibilities and able to perform intended functions?
- b. Performance of Support Functions. When called upon for assistance, does the CCC provide timely support in such areas as Government liaison, logistics, and finance?

### 03.07 Offsite Monitoring

- a. Activation and Deployment of Monitoring Teams. Licensee (or applicant) staff capable of performing offsite surveys are to be prepared to implement their functions in a timely manner. Are vehicles available and readily accessible to transport the teams and capable of functioning under adverse weather conditions? Are calibrated instrumentation and equipment available for monitoring and for taking samples? Is instrumentation to detect radioiodine at levels as low as 10<sup>-7</sup> uCi/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?

03.08 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)? Team exposure is to be monitored constantly and not exceed accepted guidelines or preestablished values. Is

communication with the team maintained by the control room, the TSC, or the OSC? Are team personnel qualified by training 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?

#### 03.09 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)? Any practice or procedure to allow easy access during emergencies must be compatible with the licensee's (or applicant's) Physical Security and Contingency Plans 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 achieved 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?

#### 03.10 Emergency News Center (Joint Public Information Center)

- a. Is information disseminated to the media/press by the licensee (or applicant) accurate and timely? Are news releases properly coordinated with the NRC and other offsite officials? 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 (or applicant) prepared to the technical 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 (or applicant) personnel giving the briefings technically qualified and able to answer media questions accurately and quickly?

#### 03.11 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 onsite and during transport to offsite medical facilities utilized?

- 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?

03.12 Post-Accident Sampling Team. When the licensee (or applicant) 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)?

03.13 Critique. At the end of an exercise or drill, each facility is to hold a critique with the controllers and players while the details are fresh. For exercises, this preliminary critique is followed by a formal critique that evaluates the overall performance of the exercise and the interaction of facility representatives and players with one another. During the critique, do the evaluators provide an unbiased and candid evaluation of the exercise, identifying the areas of strength as well as weakness and areas needing improvement? Are corrective actions defined and scheduled?

03.14 Public Meeting. The Region should conduct a public meeting if: (1) the preliminary results of the inspection indicate that a significant breakdown of the licensee's onsite emergency preparedness program has occurred or (2) there is strong public interest as demonstrated by past and present communications with members of the public. The identification of three or more exercise weaknesses may be indicative of a significant programmatic breakdown; consideration should be given to the root cause of the weaknesses and the performance record of the licensee to the EP area. The public meeting should follow the formal exit meeting with the licensee, complying with the ten-day notification

requirement discussed in IMC 1100.

#### 82301-04 RESOURCES

For planning purposes, the total estimated time to complete this procedure is 90 hours of direct onsite inspection effort (When conducting public meetings, add an additional 10 hours).

#### 82301-05 REFERENCES

Memorandum to Office Directors and Regional Administrators from James M. Taylor, Executive Director for Operations, dated February 12, 1996, "Meetings Between NRC Staff and the Public." (NUDOCS 72852/356-357)

Regulatory Guide 1.97, "Instrumentation for Light-Water Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident," Revision 3, May 1983 (Microfiche Address: 04393/323-326).

Regulatory Guide 1.101, "Emergency Planning and Preparedness for Nuclear Power Reactors," Revision 3, August 1992.

NUREG-0396, "Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants," December 1978 (Microfiche Address: 00567/260 - 00568/40).

NUREG-0654/FEMA-REP-1, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980 (Microfiche Address: 01997/314 - 01998/71).

NUREG-0696, "Functional Criteria for Emergency Response Facilities," February 1981 (Microfiche Address: 08158/270-313).

NUREG-0731, "Guidelines for Utility Management Structure and Technical Resources," September 1980 (Microfiche Address: 06910/234-265.)

NUREG-0737, "Clarification of TMI Action Plan Requirements," November 1980. (Microfiche Address: 07003/27-284) and Supplement 1, January 1983 (Microfiche Address: 17301/342-363).

EPA-520/1-75-001-A, "Manual of Protective Actions for Nuclear Incidents," January 1990.

ANSI/ANS 3.1-1981, "Selection, Qualification and Training of Personnel for Nuclear Power Plants," (Supersedes ANSI N18.1-1971-77) (Microfiche Address: 65959/199-225.)

END

