

Enabling a Remote Response by Members of an Emergency Response Organization

Revision 0

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Table of Contents

1 Purpose	1
2 Background	1
3 Regulatory Review	2
4 General Approach	2

Table of Tables

Table 1: Eligibility for Remote EP Function Performance	4
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1 PURPOSE

This white paper provides guidance that may be used by a licensee to enable members of an Emergency Response Organization (ERO) to perform their emergency preparedness (EP) functions from a remote location. The guidance addresses the identification and assessment of EP functions that may be performed remotely, the training and drill/exercise evaluations needed for assurance of adequate performance, and considerations for supporting changes to a site emergency plan and procedures. The white paper approach may be applied to either an ERO position (i.e., all persons in the position) or to an individual position-holder.

2 BACKGROUND

As used in this white paper, a “remote response” is defined as:

An ERO member responding to an emergency from a location other than the physical Emergency Response Facility (ERF) to which the member is assigned.

Each nuclear power plant site currently maintains procedures for an ERO to respond to emergencies; however, enabling a remote response by some ERO positions can enhance overall response capabilities through:

- Faster response times by ERO members since travel to an ERF is not necessary.
- Expanding the pool of potential ERO members and expertise by including individuals who cannot meet a licensee’s approved emergency plan augmentation or ERF activation time commitments.
- Expanding the range of available expertise during an emergency since ERO members whose response is currently prohibited by ERF space or occupancy limits could respond remotely.
- Travel-related risk reduction for some ERO members (i.e., precluding unnecessary travel during a high-stress situation when the likelihood of distractions and accidents is greater, or safe travel may be impeded).

ERO members responding remotely to an emergency must be capable of completing all functions and tasks assigned to their position, including support provided to other ERO members, as described in the site emergency plan and implementing procedures. Implementation of a remote response capability for ERO members does not mean that physical ERFs can be eliminated. Each licensee will maintain the physical Technical Support Center (TSC), Operational Support Center (OSC), Emergency Operations Facility (EOF), and Joint Information Center (JIC), as described in the site emergency plan.

Finally, the approach described in this white paper uses the term, “emergency planning function.” For the purposes of this approach, an emergency planning function (or EP function) is defined as a capability or resource necessary to respond to a radiological emergency. If needed, additional information concerning EP functions can be found in Regulatory Guide 1.219, “Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors.”

3 REGULATORY REVIEW

Title 10 of the Code of Federal Regulations (10 CFR) 50.47 (b)(2) requires that an onsite emergency plan meet the following standard:

“On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available and the interfaces among various onsite response activities and offsite support and response activities are specified.”

Additional requirements related to a site ERO are found in 10 CFR 50, Appendix E, “Emergency Planning and Preparedness for Production and Utilization Facilities.”

The NRC staff determines compliance with the requirements in 10 CFR 50.47 and 10 CFR 50, Appendix E, through a review of a licensee’s emergency plan commitments and capabilities against the criteria specified in:

- NUREG-0654/FEMA-REP-1, “Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,” Revision 1, or
- NUREG-0654/FEMA-REP-1, “Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,” Revision 2.

The applicable criteria are presented in Section II, “Planning Standards and Evaluation Criteria,” under Planning Standard B.

A review of the applicable requirements and guidance did not identify any obstacle to implementing a remote response capability; however, each licensee will need to assess potential changes to their site emergency plan in accordance with the requirements of 10 CFR 50.54(q), “Emergency plans.” In some cases, the changes necessary to implement a remote response capability could require prior NRC approval through a license amendment request (LAR). Licensees are encouraged to engage their regional EP inspectors on plans for implementing a remote response capability and, in cases where a LAR will be submitted, request a pre-submittal conference call through the site’s NRC Project Manager.

4 GENERAL APPROACH

By following the guidance in this white paper, a licensee will be able to utilize communication, collaboration, and data sharing technologies to enable a remote response by ERO positions performing certain EP functions. When implementing a remote response position, the six steps presented below should be followed; however, the guidance in these steps may be modified, or other steps added, as needed to address site-specific considerations.

1. Determine the eligibility of a position to respond remotely based on which EP functions the position performs.
2. Perform an assessment to identify the changes (e.g., to procedures and equipment) and other actions necessary to support implementation.

3. Conduct a training needs analysis to determine the additional training and qualification requirements.
4. Identify other applicable regulatory and site requirements, and the actions needed to ensure that compliance with these requirements is maintained following implementation.
5. Conduct a performance-based activity, such as a drill, to demonstrate the ability of the selected position to effectively respond from a remote location and document the outcome.
6. Perform an evaluation of necessary emergency plan changes per the requirements of 10 CFR 50.54(q).

The actions associated with each step are described below.

Step #1 - Determine Eligibility for Responding Remotely

To determine if an ERO position is eligible to respond remotely, the licensee will need to identify the EP functions assigned to that position, as described in the site emergency plan and implementing procedures.¹ Once identified, the position and its assigned EP functions should be compared to the guidance in table below, which is based on Table B-1, "Emergency Response Organization (ERO) Staffing and Augmentation Plan," of NUREG-0654/FEMA-REP-1, Revision 2. The last (right) column, "Eligibility for Remote EP Function Performance," specifies whether the EP functions are eligible to be performed remotely. The determinations in this column were made by the industry white paper task force and are based on consideration of the tasks associated with each function and the intra-facility communications and coordination necessary for successful function performance.

It is important to note that this table only identifies if an EP function is eligible to be performed remotely; it does not indicate that making the change would be acceptable. That determination is made later through the site's emergency plan change evaluation process.

Once a comparison with the table is made, there are two possible outcomes:

1. The position is not eligible to respond remotely; no further action is required.
2. The position is eligible to respond remotely - in that case, continue to step #2.

¹ This white paper does not address ERO positions that are not described in a site emergency plan; however, the steps of the general approach could be followed as applicable to those positions.

Table 1: Eligibility for Remote EP Function Performance

Emergency Preparedness (EP) Functions	On-Shift	Technical Support Center (TSC)/ Operations Support Center (OSC)		Emergency Operations Facility (EOF)/ Joint Information Center (JIC)/ Joint Information System (JIS)	Eligibility for Remote EP Function Performance
		Alert or Greater Augment w/in 60 min. ^{1, 2}	Alert or Greater Augment w/in 90 min. ^{1, 2}	Site Area Emergency (SAE) or Greater Augment w/in 60 min. ³	
<p>Command and Control</p> <ul style="list-style-type: none"> Provide overall ERO command and control, until relieved. Approve emergency action level (EAL) and/or PAR classifications, until relieved. Authorize personnel dose extensions, until relieved. 	Operations Shift Manager	(1) Emergency Coordinator	Not applicable	(1) Emergency Director	Not eligible. Effective performance of these functions requires the position to be physically present in an ERF.
<p>Communications</p> <ul style="list-style-type: none"> Communicate EAL and PAR classifications to OROs, including the NRC, until relieved. 	Communicator ¹	(2) Communicators (TSC) <i>One communicator for the NRC and one communicator for OROs.</i>	As needed. <i>One communicator staffed for NRC Communications if needed.</i>	(1) Communicator	Not eligible. Effective performance of these functions requires the position to be physically present in an ERF.

<p>Radiation Protection</p> <ul style="list-style-type: none"> • Provide qualified radiation protection coverage for responders accessing potentially unknown radiological environments during emergency conditions. • Provide in-plant surveys. • Control dosimetry and radiologically controlled area access. 	<p>Radiation Protection Personnel⁴</p>	<p>(3) Additional Radiation Protection Technicians</p> <p><i>[In addition to personnel-on-shift] (OSC)</i></p>	<p>(3) Additional Radiation Protection Technicians</p> <p><i>[In addition to personnel-on-shift and those responding within 60 min.] (OSC)</i></p>	<p>Not applicable</p>	<p>Not eligible. Effective performance of these functions requires the position to be physically present in an ERF.</p>
<p>Supervision of Radiation Protection Staff and Site Radiation Protection</p> <ul style="list-style-type: none"> • Evaluate and assess plant and offsite radiological data in the development of onsite protective actions and offsite PARs, until relieved. • Recommend onsite protective actions and offsite PARs to the applicable decision maker, until relieved. • Direct all radiation protection activities, including field monitoring team (FMT) direction, until relieved. • Provide relevant information to applicable communicators who are communicating offsite PARs to OROs, until relieved. 	<p>Operations Shift Manager</p>	<p>(1) Site Radiation Protection Coordinator (SRPC)(TSC)</p>	<p>Not applicable</p>	<p>(1) Radiation Protection Manager (EOF)</p>	<p>Not eligible. Effective performance of these functions requires the position to be physically present in an ERF.</p>

<p>Dose Assessments/ Projections</p> <ul style="list-style-type: none"> Perform dose assessments/ projections and provide input to applicable PAR decision-maker, until relieved. 	<p>Dose Assessment/ Projection Staff¹</p>	<p>(1) Dose Assessment/ Projection Staff (TSC)</p>	<p>Not applicable</p>	<p>(1) Dose Assessment/ Projection Staff (EOF)</p>	<p>Eligible. With proper change assessment and implementation, this position should be able to perform assigned functions at a remote location.</p>
<p>Emergency Classifications</p> <ul style="list-style-type: none"> Evaluate plant conditions and recommend emergency classifications, until relieved. 	<p>Emergency Classification Advisor¹</p>	<p>(1) Emergency Classification Advisor (TSC)</p> <p><i>Licensees should consider having a liaison between Operations (Control Room) and the TSC to perform this function.</i></p>	<p>Not applicable</p>	<p>Not applicable</p>	<p>Eligible. With proper change assessment and implementation, this position should be able to perform assigned functions at a remote location.</p>
<p>Engineering</p> <ul style="list-style-type: none"> Provide engineering coverage related to the specific discipline of the assigned engineer, until relieved. 	<p>Core/Thermal Hydraulics Engineer¹</p> <ul style="list-style-type: none"> Evaluate reactor conditions. 	<p>TSC Engineering Staff</p> <ul style="list-style-type: none"> (1) Electrical/ Instrumentation and Control (I&C): Provide engineering coverage for the ERO related to electrical or I&C equipment. (1) Mechanical: Provide engineering coverage for the ERO related to mechanical equipment. (1) Core/Thermal Hydraulics: Evaluate reactor conditions. 	<p>As needed</p>	<p>Not applicable</p>	<p>Eligible. With proper change assessment and implementation, this position should be able to perform assigned functions at a remote location.</p>

<p>Security</p>	<p>Security staffing per the site-specific security plan.</p>	<p>(1) Security Liaison (TSC)</p> <ul style="list-style-type: none"> • Coordinate security-related activities and information with the Emergency Coordinator. 	<p>Not applicable</p>	<p>Not applicable</p>	<p>Not eligible. Effective performance of these functions requires the position to be physically present in an ERF.</p>
<p>Repair Team Activities</p>	<p>Not applicable</p>	<p>Maintenance Personnel (OSC) (1 electrician, 1 mechanic)</p> <ul style="list-style-type: none"> • (1) Electrician: Provide electrical support for emergency core cooling system (ECCS) equipment, event mitigation, and equipment repair. • (1) Mechanic: Provide mechanical support for ECCS equipment, event mitigation, and equipment repair. 	<p>Maintenance Personnel (OSC)</p> <ul style="list-style-type: none"> • (1) I&C Technician: Provide assistance with logic manipulation, support for event mitigation and equipment repair, and support of digital I&C if applicable. Additional I&C staff may be called out if needed. • Electricians- As needed. • Mechanics- As needed. 	<p>Not applicable</p>	<p>Not eligible. Effective performance of these functions requires the position to be physically present in an ERF.</p>

<p>Supervision of Repair Team Activities</p>	<p>Not applicable</p>	<p>(1) Lead OSC Supervisor</p> <ul style="list-style-type: none"> Supervise OSC activities as directed by the Emergency Coordinator. 	<p>OSC Supervisors</p> <ul style="list-style-type: none"> (1) Electrical: Supervise OSC activities related to electrical equipment. (1) Mechanical: Supervise OSC activities related to mechanical equipment. (1) I&C: Supervise OSC activities related to I&C equipment. May be combined with Electrical Supervisor. (1) Radiation Protection: Supervise OSC activities related to radiation protection. 	<p>Not applicable</p>	<p>Not eligible. Effective performance of these functions requires the position to be physically present in an ERF.</p>
<p>Field Monitoring Teams (FMTs)</p>	<p>Not applicable</p>	<p>Onsite FMT</p> <ul style="list-style-type: none"> (1) Qualified individual to assess the protected area for radiation and contamination and provide input to the SRPC. Responsible for radiation protection coverage 	<p>Offsite FMT B</p> <ul style="list-style-type: none"> (1) Qualified individual to assess the area(s) outside the protected area for radiation and contamination, and for radioactive plume tracking, as directed by, and 	<p>Not applicable</p>	<p>N/A. Field Monitoring Teams report to a designated location to retrieve necessary equipment and perform their functions in the field.</p>

		<p>for the FMT as directed by SRPC (TSC) or Radiation Protection Manager (EOF).</p> <ul style="list-style-type: none"> (1) Driver to provide transportation. <p>Offsite FMT A</p> <ul style="list-style-type: none"> (1) Qualified individual to assess the area(s) outside the protected area for radiation and contamination, and for radioactive plume tracking, as directed by, and under the control of, the SRPC (TSC) or Radiation Protection Manager (EOF). Responsible for the radiation protection coverage of the FMT as directed by SRPC (TSC) or Radiation Protection Manager (EOF). (1) Driver to provide transportation. 	<p>under the control of, the SRPC (TSC) or Radiation Protection Manager (EOF). Responsible for the radiation protection coverage of the FMT as directed by SRPC (TSC) or Radiation Protection Manager (EOF).</p> <p>(1) Driver to provide transportation.</p>		
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<p>Media Information</p> <p>Manage and coordinate media information related to the event.</p>	<p>Not applicable</p>	<p>JIC/JIS staff to address media inquiries.⁵</p>	<p>Not applicable</p>	<p>Staff to perform JIC/JIS related tasks.</p>	<p>Eligible. With proper change assessment and implementation, this position should be able to perform assigned functions at a remote location.</p> <p>Key tasks identified by the task force for this EP function are listed below:</p> <ul style="list-style-type: none"> • Manage/coordinate media information • Conduct press conferences • Rumor monitoring and control • Develop/disseminate press releases
<p>Information Technology (IT)⁶</p> <p>If emergency plan functions rely on computer-based equipment, provide IT support.</p>	<p>Not applicable</p>	<p>Not applicable</p>	<p>(1) IT Lead (TSC)¹</p> <p>Qualified individual to ensure IT equipment is operable.</p>	<p>(1) IT Lead (EOF/JIC/JIS)¹</p> <p>Qualified individual to ensure IT equipment is operable.</p>	<p>Eligible. With proper change assessment and implementation, this position should be able to perform assigned functions at a remote location.</p>

Step #2 - Implementation Assessment

Following the determination that an EP function is eligible to be performed remotely (based on the step above), the licensee should perform an assessment of the associated ERO position to identify the changes (e.g., to procedures and equipment) and other actions necessary for implementation. This assessment will involve a review of the site emergency plan and implementing procedures, and documentation of the following:

- The EP functions and tasks assigned to the ERO position.
 - The existing task analyses used to develop ERO training should be reviewed to help identify the EP functions assigned to an ERO position.
- The technology(ies) that will be used to enable a remote response (e.g., audio/visual communications, data acquisition, etc.).
 - Consider the information in the “Communication Methods”, “Specialized Applications” and “Equipment/Hardware” sections below.
- The procedural instructions that will be added or changed to ensure that each assigned function and task can be performed at a remote location.
 - Consider the information in the “Other Remote Response Planning Elements” section below.

When gathering information for this assessment, the licensee should conduct interviews with the affected ERO members and observe them performing their functions during a drill or exercise, to ensure that all aspects of the positions’ assigned responsibilities are understood and accounted for in the change plan. For example, the anticipated use of a given communications or data acquisition method should be discussed with position-holders to verify that the method will be sufficient to support performance of their assigned functions and tasks.

The assessment should also consider:

- The ability of a remote responder to effectively function within an assigned team (e.g., a dose assessment team).
- Implementation of response actions unique to certain types of events (e.g., radiological release impacting a remote response location or a Hostile Action-Based event).

In addition to guiding the development of a change management plan for enabling a remote response, the completed implementation assessment can be used as an input for identifying new or revised ERO training materials and evaluating changes to the site emergency plan.

Communication Methods

The licensee should establish communication methods that permit effective interface between remotely responding individuals and ERO members located in ERFs. The selection of a communication method for a given ERO position is dependent on the position’s assigned functions and tasks. The selected method should ensure that a remote ERO member can:

- obtain information necessary to perform assigned functions and tasks, and
- provide information needed by others to perform their assigned functions and tasks.

To support coordinated teamwork and timely sharing of information, a collaboration platform² should be available to support ERO operations. This platform should possess the following features:

- Audio/visual communication between users, including all participants or between specific users
- Ability to share screens/documents
- Private and public chats, and breakout rooms
- Ability to mute and unmute participants
- Ability to grant access to outside agencies or organizations, if desired
- Backup phone communication capability

Communication methods should have the requisite connection and data transfer capacity to handle all reasonably expected communication needs and be highly reliable.³ When appropriate to the technology, the selection of a communication method should also consider the ability of the vendor or company Information Technology (IT) department to push out software updates and notifications of system/platform outages.

Once the communications methods have been determined, the need for new or revised communications protocols, procedure instructions, and/or user aids should be identified, including consideration of user guidance to minimize the potential for human error. For example, instructions could address switching between multiple open collaboration platform links (if that could occur), when to use chat and mute features, use of another collaboration platform link/feature or a telephone call for “sidebar” conversations, etc.

Specialized Applications

To perform assigned EP functions remotely, ERO position-holders will need the capability to access the computer applications they would use in an ERF. Such applications may include:

- WebEOC (or an equivalent)
- Plant document management system
- Plant computer system and meteorological data display

² As used in this white paper, a collaboration platform is an information technology tool that allows real-time audio-visual communications and document sharing between large groups of people.

³ It is noted that NUREG-0696, “Functional Criteria for Emergency Response Facilities,” recommends an unavailability goal of 0.01 for ERF equipment when the reactor is above cold shutdown mode. This means that a selected communication method should not be unavailable for more than 88 hours in a year.

- Dose assessment model
- Core damage assessment tool

Making an application available can be done in several ways. For example, an application could be installed locally on an ERO member's computer or be accessed remotely via a Virtual Private Network (VPN) or cloud computing connection. The licensee will need to determine the best method to use for each application. Whatever method is used, the licensee should ensure that responders can access the necessary applications and have controls in place to ensure that the applications are the correct version. Updates/upgrades to software and hardware used by remote responders should be controlled in a manner consistent with site IT and EP requirements.

Equipment/Hardware

Similar to Specialized Applications, provisions should be in place to ensure that a remote responder has access to the equipment or hardware needed to perform their emergency response functions. This includes administrative controls to periodically verify that a responder has possession of the necessary equipment or hardware, and that required tests and maintenance are being performed. Suggested testing strategies include:

- Monitoring vendor or site IT department alerts concerning the status of a piece of equipment.
- Requiring individuals filling remote ERO positions to verify functionality when taking the on-call duty.
- For pooled-response positions, individuals can follow a routine testing schedule to verify functionality.

Remote Response Planning Elements

ERO members responding remotely must have the capability to respond within the applicable position and facility activation times described in the site emergency plan. In addition, the licensee should have contingency actions/compensatory measures in place to address instances where an issue prevents an ERO member from responding remotely (e.g., the loss of internet connectivity at an individual's home). These contingency actions/compensatory measures should be sufficiently rigorous to provide reasonable assurance that:

- the affected position's function and tasks will be performed, and
- there is no material adverse impact to the overall performance of the ERO

Planned contingency actions/compensatory measures should be described in controlled documents (e.g., emergency plan implementing procedures or associated user aides).

The ERO positions enabled for a remote response should be clearly identified in the locations and tools used by the ERO to support facility activation and personnel accountability. In particular, the methods for tracking the staffing of ERO positions during an emergency (e.g., sign-in boards, procedures, computer-based user aids, etc.) should clearly identify which positions are physical response and which

are remote response. Duty rosters should also identify the personnel staffing remote response ERO positions.

ERO procedures should address the shift turnover requirements and documentation applicable to remote responders. For long duration (multi-shift) events, applicable procedures should direct when and how remote responders will go off-shift, and when and how they will resume their ERO duties, including whether they will continue a remote response or report to a physical ERF after their initial response/shift.

Step #3 - Training and Qualification

The licensee should conduct a training needs analysis to determine the additional training requirements and content necessary to ensure an effective remote response. This analysis should be performed using the same process applied to the development of the ERO training program. The training analysis should not be limited to the remote ERO position but should also address the ERO positions in the physical ERFs and the interface between the two. The training needs analysis should:

- Determine the new knowledge, skills or abilities required to enable a remote response.
- Perform a gap analysis to identify the difference between the current set of knowledge, skills and abilities, and the new set.
- As needed based on the gap analysis, revise the documents that control the ERO training program and the appropriate training materials (e.g., lesson plans, qualification guides, job performance measures, etc.).

Candidates for a remote response position must meet all initial selection criteria for the ERO position to which they are being assigned. This includes all technical knowledge, education, and experience prerequisites for their assigned position.

Training program procedures should include provisions for individual remediation when necessary.

Step #4 - Other Applicable Regulatory and Site Requirements

The licensee will need to identify these requirements; however, there are two associated with NRC regulations which must be addressed.

Fitness-for-Duty

Individuals filling remote response positions must adhere to the Fitness-for-Duty (FFD) requirements in 10 CFR 26, "Fitness for Duty Programs," and station procedures. When applicable, a site should develop a method for remote responders to certify they are fit-for-duty prior to assuming their emergency response positions. For example, a site could use an electronic sign-in board (in WebEOC or a similar tool) with language stating that, by signing-in, the member certifies they are fit-for-duty. This method offers the added benefit of allowing facility managers to see when a position is filled and the name of the position-holder.

Cyber Security

A remote responder may require access to telecommunications systems, networked systems, and computer workstations in order to perform their assigned functions and tasks. When establishing remote access capabilities, the licensee must consider the cyber security requirements in 10 CFR 73.54, “Protection of digital computer and communication systems and networks,” and the site commitments in the NRC-approved cyber security plan. The regulations and the plan cover the protection of digital computer and communication systems and networks associated with safety-related and important-to-safety functions; security functions; emergency preparedness functions, including offsite communications; and support systems and equipment which, if compromised, would adversely impact safety, security, or emergency preparedness functions.

To ensure that remote response capabilities adequately address cyber security requirements, it is recommended that the site Cyber Security Assessment Team be contacted early in the planning process.

Step #5 - Drills and Exercises

The licensee should incorporate periodic demonstration of a remote response capability into their drill and exercise program. The frequency and extent-of-play of the demonstration should reflect the manner in which the site implemented the capability. For example, a site choosing to have all holders of a given ERO position respond remotely would always have the players in that position respond remotely during drills and exercises. A site with a mixed pool of responders in a position (i.e., some position holders respond in-person, and some respond remotely) would demonstrate the capability if the player assigned to the drill or exercise, is a remote responder.

Drill and exercise programs require planning and execution that support effective observations and evaluations of functions being performed by the ERO. Every licensee has established a drill and exercise critique⁴ process designed to meet the NRC requirements in 10 CFR 50.47(b)(14) and Section IV.F.2.g of Appendix E. The following areas should be assessed to identify changes to existing procedures or processes:

- Pre-drill/exercise briefings for observers, players, and controllers
- Simulation instructions in the scenario manual
 - Drill/exercise scenario information and data (e.g., plant parameters) should be available to a remote responder via the method described in procedures. If this is not possible, then the drill/exercise extent-of-play should briefly state why the normal method cannot be used and describe the alternative method that will be employed (e.g., provided manually by a controller)
- Controller instructions in the scenario manual
 - Communication method to a remote player

⁴ A critique is a formal or documented licensee assessment of the ERO performance following an exercise, drill, or training that provides performance opportunities to develop, maintain, or demonstrate key skills. It typically involves a comparison of performance observations to planned objectives and demonstration criteria.

- Delivery and timing of contingency messages, if needed
- NRC briefings (e.g., ensure that the lead NRC exercise inspector is aware of any positions responding remotely).
- Critique process:
 - Assess impact that a remote responder may have had on the accuracy and timeliness of decisions
 - Review of work products by the remote responder to assess accuracy and completeness
 - Determine the effectiveness of communications and teamwork within an ERO team when the team included a remote responder
 - Solicit player, controller, and evaluator observations/comments pertaining to remote responder performance

Step #6 - Changes to the Emergency Plan and Implementing Procedures

The licensee will identify the emergency plan and implement procedure changes necessary to permit a remote response by the selected ERO positions. This includes a review of the position-specific procedures used by each remote-enabled member and the positions with which they interface. The identified changes should be evaluated in accordance with the site process that implements the requirements of 10 CFR 50.54(q). The guidance in Regulatory Guide 1.219, "Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors," should also be considered. A LAR may or may not be required.

Changes to procedures should also address how to manage a response by multiple ERO members filling the same position (e.g., two or more TSC mechanical engineers respond remotely but only one is needed,) and the contingency actions/compensatory measures to be taken if a position or position holder is unable to respond remotely.

To support the evaluation of the emergency plan and procedure changes, a licensee is expected to conduct a performance-based activity (e.g., a drill) to validate (demonstrate) that the remote ERO response can be successfully implemented. More specifically, this activity should validate that the ERO position functions and tasks to be performed remotely can be accomplished in a satisfactory manner. The activity need not contribute to the Drill/Exercise Performance (DEP) and ERO indicators but should be critiqued with weaknesses captured in the appropriate corrective action process. The activity and outcomes should be documented (e.g., a drill report), and the documentation referenced in the emergency plan change evaluation as supporting the conclusion that there would be no reduction in effectiveness of the emergency plan if the proposed change were implemented.

In addition to referencing the performance-based activity described above, the emergency plan change evaluation should also address:

1. The selection, training, and qualification of position holders.
2. The changes made to procedures, user aids and other written materials.

3. The communications method made available to the remote responder, including periodic testing.
4. The specialized applications made available to the remote responder, including periodic testing.
5. The equipment/hardware made available to the remote responder, including periodic testing.
6. The frequency or conditions that will drive a periodic demonstration of the remote response capability in drills and exercises.
7. Documentation of concurrence from the appropriate Offsite Response Organization (ORO) official if the position interfaces with ORO responders.

Licensees are encouraged to engage their regional EP inspectors on plans for implementing a remote response capability. Should a licensee determine, through their emergency plan change evaluation process, that an LAR is required for implementation, then a pre-submittal meeting/conference call with the NRC should be requested through the site's NRC Project Manager.

It is recommended that no emergency plan changes be made that commit to increased ERO staffing or shorter response times as a result of enabling a remote response capability.