

NEI 12-01 Revision 0 (May 2012)

4 COMMUNICATIONS DURING AN EXTENDED LOSS OF AC POWER

4.1 REQUIRED EMERGENCY COMMUNICATIONS CAPABILITIES

Consistent with emergency planning standard requirements, communications systems and equipment associated with the following emergency response functions should be available during an extended loss of AC power. Availability should be determined after a review of existing capabilities and consistent with the assumptions listed in NEI 12-01 Rev. 0 Section 2. In particular, it is important that the primary and backup (if applicable) power source for each communications system or piece of equipment be identified.

End-point equipment identified for a communications link listed below should be used solely for the purpose indicated. For example, a satellite telephone assigned to the Control Room should not be credited for performing both Offsite Response Organization (ORO) and NRC notifications.

When performing this assessment, consideration should be given to the desirability of providing some communications capabilities in alternate facilities at offsite locations instead of their normal locations in on-site facilities.

NOTE:

In tables below, when referring to “Additional Information” in column 8, ensure the following is addressed:

1. Provide a description of any new communications system(s) or technologies that will be deployed based upon the assumed conditions described above, and
2. Provide a description of how the new and/or improved systems and power supplies will be able to provide for communications during a loss of all AC power

4.1.1 Notifications to, and communications with, OROs [per 10 CFR 50 Appendix E.IV.D and E.9.a]

Emergency Response Facility	Minimum Communications Links	Primary Method Described in site E-Plan	Primary Method Available following Assumed Large Scale External Event (LSEE)?	Backup Method(s) Described in site E-Plan	Backup Method(s) Available following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to Following Section for Additional Information
Control Room	1 per Control Room for Shift Communicator						
Technical Support Center ¹² (TSC)	1 for Key TSC Communicator						
Emergency Operations Facility (EOF)	1 for Key EOF Communicator						

4.1.2 Notifications to, and communications with, the Nuclear Regulatory Commission (NRC) Headquarters Incident Response Center and the appropriate NRC Regional Office Operations Center [per 10 CFR 50 Appendix E.IV.D and E.9.d]

Emergency Response Facility	Minimum Communications Links	Primary Method Described in site E-Plan	Primary Method Available following Assumed LSEE?	Backup Method(s) Described in site E-Plan	Backup Method(s) Available following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to Following Section for Additional Information
Control Room	1 per Control Room for ENS Communicator						
Technical Support Center (TSC)	1 for ENS Communicator						
Location(s) where HPN communications are performed	1 for HPN Communicator						

4.1.3 Communications between licensee emergency response facilities [per 10 CFR 50 Appendix E.9.c. Additional links that support performance of critical response functions are also specified.] The minimum communications links to support this function are listed below by facility. For example, if the normally used telephone system cannot be restored to service, these links could rely upon some combination of radio, sound-powered and satellite-based communications systems.

Emergency Response Facility	Minimum Communications Links	Primary Method Described in site E-Plan	Primary Method Available following Assumed LSEE?	Backup Method(s) Described in site E-Plan	Backup Method(s) Available following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to Following Section for Additional Information
Control Room	1 per unit						
Technical Support Center (TSC)	1 each for: <ul style="list-style-type: none"> • Senior/Lead TSC Manager • Operations Coordination • Maintenance Coordination • Engineering Coordination • Radiological Support Additional response coordination links for multi-unit sites: <ul style="list-style-type: none"> • 1 for each position providing Unit Response Coordination. 						
Operational Support Center (OSC)	1 each for: <ul style="list-style-type: none"> • Senior/Lead OSC Manager • Radiological Support Additional response coordination links for multi-unit sites: <ul style="list-style-type: none"> • 1 for each position providing Unit In-Plant Team Coordination. 						
Emergency Operations Facility (EOF)	1 each for: <ul style="list-style-type: none"> • Senior/Lead Manager • Key Protective Measures • Operations or Technical Support (as needed to support performance of dose projections, formulation of PARs and plant status updates to ORO authorities). 						
Joint Information Center (JIC)	1 for Senior Manager						

4.1.4 Communications with field/offsite monitoring teams [per 10 CFR 50 Appendix E.9.c]

Emergency Response Facility	Minimum Communications Links	Primary Method Described in site E-Plan	Primary Method Available following Assumed LSEE?	Backup Method(s) Described in site E-Plan	Backup Method(s) Available following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to Following Section for Additional Information
Primary location where field/offsite monitoring team coordination is performed	Field/offsite monitoring team coordination						
Primary location from which field/ offsite monitoring teams are deployed	1 for each field/offsite monitoring team						

4.1.5 Communications with other Federal agencies as described in the site emergency plan (e.g., the US Coast Guard) [per 10 CFR 50 Appendix E.9.b]

Emergency Response Facility	Minimum Communications Links	Primary Method Described in site E-Plan	Primary Method Available following Assumed LSEE?	Backup Method(s) Described in site E-Plan	Backup Method(s) Available following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to Following Section for Additional Information
Primary location where communication with Federal agencies is performed	Coordination with Federal agencies						

4.1.6 Coordination and direction of on-site and in-plant response teams. This includes teams necessary to affect emergency repairs, firefighting, search and rescue, radiological monitoring, and implementation of Transition Phase coping and severe accident management strategies. To accommodate the timeline associated with NRC Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (as discussed in Section 1), this element should be assessed in 2 phases.

4.1.6.1 Phase 1 Assessment

Emergency Response Facility	Minimum Communications Links	Primary Method Described in site E-Plan	Primary Method Available following Assumed LSEE?	Backup Method(s) Described in site E-Plan	Backup Method(s) Available following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to Following Section for Additional Information
On-shift staff	Number necessary for the on-shift staff to perform Initial Phase coping actions (reflecting current staff & strategies)						
Operational Support Center (OSC) and other site-specific locations as necessary	1 each for: <ul style="list-style-type: none"> • On-site radiological monitoring 2 each for: <ul style="list-style-type: none"> • Firefighting (1 for brigade leader and 1 for the brigade) 2 each per unit for: <ul style="list-style-type: none"> • In-plant radiological monitoring • Search and Rescue • Emergency repairs 						

	Site-specific number needed to implement any 2 severe accident mitigation strategies						
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4.2 Plant Paging (Announcement) System

Emergency Response Facility	Minimum Communications Links	Is this system available following assumed LSEE?	Planned or Potential Improvement Identified?	Refer to Following Section for Additional Information
N/A	See assumptions and discussion in NEI 12-01.			

4.3 Communications Equipment at ORO Facilities

Emergency Response Facility	Minimum Communications Links	Primary Method Described in site E-Plan	Primary Method Available following Assumed LSEE?	Backup Method(s) Described in site E-Plan	Backup Method(s) Available following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to Following Section for Additional Information
Location where OROs receive notifications of an emergency declaration or a Protective Action Recommendation (as described in the site emergency plan)	At least one. See assumptions and discussion in NEI 12-01.						

Considerations for performing the communications assessment and identifying enhancements:

4.5 EQUIPMENT LOCATION REQUIREMENTS

4.6 PERFORMANCE CHARACTERISTICS

4.7 OTHER ASSESSMENT CONSIDERATIONS

4.8 QUALITY AND MAINTENANCE-RELATED REQUIREMENTS

4.9 NATIONAL COMMUNICATIONS SYSTEM (NCS) SERVICES

4.10 COMMUNICATIONS PROVIDER EMERGENCY SERVICES

4.11 PERSONNEL TRAINING

Response Commitment

EXAMPLE ONLY

4.1.1 Notifications to, and communications with, OROs [per 10 CFR 50 Appendix E.IV.D and E.9.a]

Emergency Response Facility	Minimum Communications Links	Primary Method Described in site E-Plan	Primary Method Available following Assumed LSEE?	Backup Method(s) Described in site E-Plan	Backup Method(s) Available following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to Following Section for Additional Information
Control Room	1 per Control Room for Shift Communicator	Nuclear Alert System (NAS)	No	<ul style="list-style-type: none"> • Nextel Radio • Commercial telephone • Cellular telephone 	No for all	Yes	5.1
Technical Support Center ¹² (TSC)	1 for Key TSC Communicator	Nuclear Alert System (NAS)	No	<ul style="list-style-type: none"> • Nextel Radio • Commercial telephone • Cellular telephone 	No for all	Yes	5.1
Emergency Operations Facility (EOF)	1 for Key EOF Communicator	Nuclear Alert System (NAS)	No	<ul style="list-style-type: none"> • Nextel Radio • Commercial telephone • Cellular telephone 	No for all	Yes	5.1

5.1 equipment near or below ground level is subject to potential flooding. Equipment in Control Room and TSC has power source issues (batteries that will eventually die). 25 mile rule

Section 5.1 would say something like equipment near or below ground level is subject to potential flooding. Equipment in Control Room and TSC has power source issues (maybe on a DG or a battery that eventually dies). "25-mile" rule takes out infrastructure necessary for operation of these systems. Have identified an enhancement to add satellite telephone capability. Include discussion of battery source and capabilities.

takes out infrastructure necessary for operation of these systems. Have identified an enhancement to add satellite telephone capability with diesel fuel power generator