NEI 13-01 [Revision C]

Reportable Action Levels for Loss of Emergency Preparedness Capabilities

TBD 2013

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Nuclear Energy Institute

Reportable Action Levels for Loss of Emergency Preparedness Capabilities

TBD 2013

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ACKNOWLEDGMENTS

This document was prepared by the Nuclear Energy Institute (NEI) Reportable Action Level (RAL) Task Force.

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NOTICE

EXECUTIVE SUMMARY

Title 10 of the Code of Federal Regulations (10 CFR) 50.72, "Immediate Notification Requirements for Operating Nuclear Power Reactors," requires a licensee to report the occurrence of certain events to the US Nuclear Regulatory Commission (NRC). In particular, § 50.72(b)(3)(xiii) requires that a licensee report any event that results in a major loss of emergency assessment capability, offsite response capability, or offsite communications capability as soon as practical and in all cases within eight hours of the occurrence. The regulatory guidance concerning this requirement is contained in NUREG-1022, *Event Reporting Guidelines 10 CFR 50.72 and 50.73*. NUREG-1022 collectively refers to the above three event types as a "Loss of Emergency Preparedness Capabilities."

The purpose of this technical report is to provide a uniform approach that will promote consistent application of the event reporting guidance associated with a loss of emergency preparedness capabilities. To that end, this document provides a set of generic event reporting criteria referred to as Reportable Action Levels or RALs. An event described by one of these RALs constitutes a major loss of emergency assessment capability, offsite response capability, or offsite communications capability, and thus must be reported to the NRC as required by § 50.72(b)(3)(xiii).

A licensee may use the information in this document to create site-specific RALs for assessing a potentially reportable loss of emergency preparedness capabilities. When doing so, the licensee should maintain as much fidelity as possible to the generic material contained herein. This approach will help ensure that the resulting RALs are consistent with the guidance in NUREG-1022.

The guidance presented in this document is applicable only to the reporting of a loss of emergency preparedness capabilities. It should not be utilized for other reporting purposes.

Finally, NEI 13-01 does not address the requirements of 10 CFR 50.73, "Licensee Event Report System," because these requirements are not applicable to the loss of an emergency preparedness capability.

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REPORTABLE ACTION LEVELS FOR LOSS OF EMERGENCY PREPAREDNESS CAPABILITIES

1 DEFINITIONS USED IN NEI 13-01

To promote clarity and understanding of the event reporting criteria for a loss of emergency preparedness capabilities, the Reportable Action Level (RAL) methodology employs several defined terms, i.e., words that have specific meanings as used in this document. The development of these term definitions considered related material already in use in regulations, and NRC and NEI guidance documents. Defined terms appear in all capital letters (i.e., ALL CAPS) and, along with their definitions, are listed below. These definitions have been developed specifically for use in the RAL methodology described in this document and should not be used for other purposes without evaluation/validation of suitability.

ACCIDENT ASSESSMENT: The evaluation of plant information to determine the consequences of an accident or other emergency-related event, and the appropriate measures for event mitigation and protection of the public. ACCIDENT ASSESSMENT includes EMERGENCY ASSESSMENT as a sub-function.

ALERT AND NOTIFICATION SYSTEM (ANS): The system that demonstrates compliance with the public alerting and notification functions required by 10 CFR 50.47(b)(5).

COMPENSATORY MEASURE: An interim action taken to compensate for the inability to perform an emergency response function in the normally expected manner such that, when implemented, there is a reasonable expectation that the function would be accomplished, albeit in a possibly degraded manner, during an actual radiological emergency. These measures remain in place, or are modified as necessary, until completion of corrective actions to restore the normally expected method. [*A compensatory measure need not meet the same design or operating requirements as a normally used method but must be sufficient to support effective implementation of the emergency plan.*]

EMERGENCY ACTION LEVEL (EAL): A pre-determined, site-specific, observable threshold for an INITIATING CONDITION that, when met or exceeded, places the plant in a given emergency classification level.

EMERGENCY ASSESSMENT: An evaluation of radioactive releases performed to determine offsite doses during an emergency. [*This function is commonly referred to as "dose assessment".*]

EMERGENCY NOTIFICATION SYSTEM (ENS): A telephonic communications system designed to allow a licensee to provide timely notifications to the NRC Operations Center of off-normal incidents affecting a facility, and information concerning the operation and status of the plant.

EMERGENCY RESPONSE DATA SYSTEM (ERDS): A direct near real-time electronic data link between a licensee's onsite computer system and the NRC Operations Center that provides for the automated transmission of a limited data set of selected parameters.

EMERGENCY RESPONSE FACILITY (ERF): A licensee-owned facility that demonstrate compliance with 10 CFR 50.47(b)(8) and staffed by members of the licensee's Emergency Response Organization during a radiological emergency.

EMERGENCY RESPONSE ORGANIZATION (ERO): The organization of qualified licensee personnel that demonstrate compliance with 10 CFR 50.47(b)(2).

HEALTH PHYSICS NETWORK (HPN): A telephonic communications system designed to allow a licensee to provide health physics (radiological) and environmental monitoring information to the NRC Operations Center during an emergency.

INITIATING CONDITION (IC): An event or condition that aligns with the definition of one of the four emergency classification levels by virtue of the potential or actual effects or consequences.

OFFSITE RESPONSE ORGANIZATION (ORO): Those state and local agencies that have responsibility for managing the offsite response to a radiological emergency at a nuclear power plant.

REACTOR COOLANT SYSTEM (RCS): The system used to remove energy from the reactor core.

REPORTABLE ACTION LEVEL (RAL): A predetermined, site-specific, observable threshold that, when met or exceeded, requires notification of the associated event to the NRC in accordance with § 50.72(b)(3)(xiii).

VIABLE: A COMPENSATORY MEASURE that (1) can restore a required function in a reasonably comparable manner and (2) is proceduralized prior to an event.

2 DEVELOPMENT OF SITE-SPECIFIC MATERIAL

2.1 INTEGRATION OF MATEIAL INTO EXISTING PROGRAMS/PROCESSES:

Enhanced event reporting guidance developed using this document may be incorporated into existing programs and processes in whatever manner is deemed appropriate by a licensee. The selected approach should maintain alignment with current practices, and minimize organizational impacts and necessary document changes. It is not intended that a separate (stand-alone) program or process be created to address new or revised reporting guidance.

In order to ensure that the Reportable Action Levels (RALs) are properly aligned with the guidance contained in NUREG-1022, developers are urged to adhere closely the development guidance presented in the Developer Notes. These notes provide information on how to adjust the generic RAL thresholds to properly reflect site-specific design considerations and emergency plan requirements. It is recognized that some differences from the generic guidance may be necessary to address unique site characteristics; in these cases, it is recommended that the rationale for the difference be incorporated within the RAL basis.

It is important that the event evaluation criteria contained in this document be implemented as an integrated package. Selected use of portions of the guidance is strongly discouraged as it could lead to potentially inaccurate or inadequate event reporting.

2.2 DEVELOPER USE OF GENERIC MATERIAL:

The RAL scheme developer will use the generic guidance in NEI 13-01 to prepare a set of site-specific RALs. This individual is reminded to review all applicable NRC requirements and guidance before beginning their efforts. Consistent with the structure and format of the existing fleet or site reporting guidance document(s), incorporation of RALs should include the following elements:

- Reportable Event: The summary description of the 3 events involving a loss of Emergency Preparedness (EP) capabilities - emergency assessment capability, offsite response capability, or offsite communications capability.

- REPORTABLE ACTION LEVEL (RALs): The predetermined, site-specific, observable thresholds that, when met or exceeded, will require notification of the associated event to the NRC in accordance with § 50.72(b)(3)(xiii). The RAL alpha-numeric designations and Table identifiers may be changed as necessary to align with the format of the existing fleet or site reporting guidance document(s).

- Basis: Material that supports proper decision-making for event reporting by providing informing background information.

- Definitions: The definitions from Section 1 should be included somewhere within the fleet or site reporting guidance document(s) to ensure consistent and proper application of the RALs.

Finally, the reporting guidance document(s) should contain clear instructions to the user that a report to the NRC is required if an RAL is met.

Questions or comments concerning the material in this document may be directed to the NEI Emergency Preparedness staff, NEI RAL task force members or submitted to the Emergency Preparedness Frequently Asked Questions (EPFAQ) process.

3 REPORTABLE ACTION LEVELS

3.1 REPORTABLE EVENT: A MAJOR LOSS OF EMERGENCY ASSESSMENT CAPABILITY

Example Reportable Action Levels: (1 or 2 or 3 or 4 or 5)

Note: Review both the RALs and the Basis section information before making a report.

(1) Loss of structures or equipment; including indications, display systems and annunciators; that preclude the evaluation of an emergency INITIATING CONDITION identified in the emergency plan for greater than 15 minutes.

(2) Loss of indications, display systems and/or annunciators in the Control Room that preclude performance of **ANY** of the following emergency response functions for greater than 15 minutes.

- Assessment and monitoring of an accident or transient in progress
- EMERGENCY ASSESSMENT
- Formulation of protective action recommendations (PARs)

(3) a. Loss of structures or equipment that preclude performance of ACCIDENT ASSESSMENT at **ANY** of the following ERFs if an actual radiological emergency was to occur.

- Primary Technical Support Center
- Primary Emergency Operations Facility

AND

b. **ANY** of the following:

1. (a) The lost structures or equipment are not expected to be returned to service within the duration shown in the Loss Timeframe column for the affected ERF in Table A.

AND

(b) No VIABLE COMPENSATORY MEASURE was implemented within the duration shown in the Loss Timeframe column for the affected ERF in Table A.

Table A	
ERF	**Loss Timeframe**
Primary Technical Support Center	(site-specific time #1)
Primary Emergency Operations Facility	(site-specific time #2)

OR

2. The condition is not expected to be corrected within 72 hours.

OR

3. The condition was not corrected within 72 hours.

(4) a. Loss of structures or equipment that preclude the ability to obtain **ANY** radiological effluent release parameter value necessary for an EMERGENCY ASSESSMENT from **ALL** the parameter sources described Table B.

Table B	
Radiological Effluent Release Parameter	**Parameter Sources**
(site-specific radiological release effluent parameter)	(site-specific primary and alternate sources #1)

AND

b. **ANY** of the following:

1. No VIABLE COMPENSATORY MEASURE was implemented prior to the loss.

OR

2. The condition is not expected to be corrected within 72 hours.

OR

3. The condition was not corrected within 72 hours.

(5) a. Loss of structures or equipment that preclude the ability to obtain **ANY** meteorological parameter necessary for performing an EMERGENCY ASSESSMENT from **ALL** the parameter sources described Table C.

Table C	
Meteorological Parameter	**Parameter Sources**
(site-specific metrological parameter)	(site-specific primary and alternate sources #2)

AND

b. **ANY** of the following:

1. No VIABLE COMPENSATORY MEASURE was implemented prior to the loss.

OR

2. The condition is not expected to be corrected within 72 hours.

OR

3. The condition was not corrected within 72 hours.

Basis:

This Reportable Event addresses a major loss of an emergency assessment capability that could prevent the Control Room from activating the Emergency Plan; or personnel at an EMERGENCY RESPONSE FACILITY (ERF) from performing an assessment of accident conditions, including an assessment of a radiological release, if an emergency were to occur. The failure of an individual system or facility that comprises a capability is reportable only to the extent that the failure meets this threshold. It is expected that a report will be made only as a result of an ongoing condition.

Each RAL above is focused on the major loss of an emergency assessment capability as described in NUREG-1022. Such a condition would generally require the loss of ALL methods employed to perform the function of interest, as described in the site emergency plan and associated implementing procedures. Two examples are provided for clarification.

1. An ERF has a normal (primary) power source and a backup power generator. An event involving a loss of power to the facility would be reportable only if both the normal source and the backup source are simultaneously unavailable. The unavailability of the normal source alone, or the backup source alone, would not require a report.

2. Procedures describe the normal (primary) method of providing plant data to ERFs as the Safety Parameter Display System (SPDS) and a backup (alternate) method that relies on manual actions (e.g., use of a communicator). An event involving a loss of the SPDS would be reportable only if the backup method was simultaneously unavailable. The

unavailability of the SPDS alone, or the backup manual method alone, would not require a report.

RAL #1 addresses a loss of the structures or equipment that provide the parameter values or information necessary for evaluation of the EMERGENY ACTION LEVEL (EAL) thresholds for a given emergency INITIATING CONDITION (IC). Two examples are provided.

1. An IC with multiple EALs that assess the same condition: A site has an IC for high RCS radioactivity with two EALs – one based on a letdown monitor reading and one based on a sample analysis. The monitor is removed from service for maintenance. The event is not reportable because the IC can still be evaluated using RCS sample analysis capabilities. If a concurrent failure were to occur that prevented the collection or analysis of an RCS sample, then both EALs could not be evaluated and, thus, the IC could not be evaluated. This event would be reportable.

2. An IC with multiple EALs that assess different conditions: A site has an IC for natural or manmade hazards with 4 EALs – one for high wind speed, one for a seismic event, one for an explosion and one for flooding. The seismic monitoring system suffers a failure such that the one seismic-related EAL cannot be evaluated. This event would be reportable because the remaining EALs under the IC assess conditions unrelated to a seismic event.

For RALs #1 and #2, fifteen (15) minutes was incorporated as a threshold value to exclude reporting of transient or momentary losses of the specified emergency assessment capabilities.

RAL#3 addresses the loss of structures or equipment that preclude the timely and effective performance of an ACCIDENT ASSESSMENT function at an ERF. This RAL should be evaluated for a loss of any of the following items:

- Structural integrity
- Lighting
- Power sources
- Data acquisition, computation and display systems; including those used for EMERGENCY ASSESSMENT (dose projection) purposes
- Heating, Ventilation and Air Conditioning (HVAC) systems and components
- Habitability systems and components (e.g., HEPA or charcoal filters)
- Unique design features necessary for facility operation (e.g., flooding protection)

As used in this RAL, an inability to perform the ACCIDENT ASSESSMENT function should not be assumed to have occurred simply because a structure or equipment design parameter is exceeded or feature inoperable. Rather, the decision should be based on whether or not ERO personnel could effectively perform their ACCIDENT ASSESSMENT-related duties within the facility and using the equipment available. This decision should consider both the ability to activate the facility as well as the capability for protracted operation under emergency conditions.

Provided that the capability to perform necessary functions is maintained, the temporary use of an alternate or backup ERF may provide a VIABLE COMPENSATORY MEASURE for the loss of a primary ERF.

All elapsed times specified in the above RALs (e.g., 72 hours) begin with:

- the time that the structure or equipment was intentionally removed from service (e.g., for planned maintenance or upgrading), or
- the time of structure or equipment failure, if known, or
- the time of discovery if neither of the above conditions apply.

For RALs #3, #4 and #5, 72 hours was included to reflect guidance from NUREG-0696, *Functional Criteria for Emergency Response Facilities*. This guidance suggests an equipment unavailability factor of no more than approximately 1% per year, or about 87 hours per year. This was rounded down to 72 hours to align with other NRC reporting criteria.

A report is not required if the lost capability affects only an alternate or backup ERF.

Developer Notes:

For RAL #2, consider the need to include clarifications necessary to ensure consistent understanding of this criterion (e.g., parameters necessary to implement AOPs and EOPs).

The RALs in this section address a loss of emergency assessment capability. RAL #3 specifies the ERFs staffed by augmented ERO personnel and responsible for the performance of emergency assessment functions (consistent with the guidance provided in NUREG-0696). Other ERFs should not be included in this RAL unless they perform emergency assessment functions similar to those done in the TSC or EOF. For example, the OSC and Joint Information Center would typically not be included because personnel in these facilities do not perform emergency assessment functions.

(site-specific time #1) – Enter the elapsed time goal for activation of the TSC as described in the site emergency plan or implementing procedures (e.g., 60, 75 or 90 minutes).

(site-specific time #2) – Enter the elapsed time goal for activation of the EOF as described in the site emergency plan or implementing procedures (e.g., 60, 75 or 90 minutes).

(site-specific radiological release effluent parameter) – List the radiological effluent release parameters necessary to accomplish the primary and alternate EMERGENCY ASSESSMENT methods described in the site emergency plan or implementing procedures. For monitors with multiple channels (e.g., a plant vent monitor with a low range and a high range), each individual channel used as an EMERGENCY ASSESSMENT input should be listed separately. The parameter units should also be specified.

For example, a list might include:

- Plant Vent Wide Range Gas Monitor Low Range (RM-6528-1) in uCi/cc

- Plant Vent Wide Range Gas Monitor Hi Range (RM-6528-2) in uCi/cc
- Plant Vent Backup Monitor (RM-6331-1) in mR/hr
- Main Steam Line Monitor Loop 1 (RM-6481-1) in mR/hr
- Main Steam Line Monitor Loop 2 (RM-6482-1) in mR/hr
- Turbine Building Exhaust (RM-6505-1) in cpm

Add as many table rows as necessary to include all parameters.

(site-specific primary and alternate sources #1) – List the primary and alternate sources for obtaining a given effluent parameter as described in the site emergency plan or implementing procedures. For example, a list might include:

Radiological Effluent Release Parameter	Parameter Sources
Plant Vent Wide Range Gas Monitor Hi Range (RM-6528-2) in uCi/cc	CP-180 CP-295 Main Plant Computer System Grab sample analysis
Plant Vent Backup Monitor (RM-6331-1) in mR/hr	TSC Victoreen Monitor

Parameter Sources should be limited to those available in the Control Room; however, a source of information located outside the Control Room, may be listed provided that 1) appropriate instructions directing the actions necessary to use the source are included in a procedure, 2) the information necessary for preforming an EMERGENCY ASSESSMENT can be made available to the Control Room within approximately 3 hours[1] of the decision to use the source to obtain the needed data, and 3) the EMERGENCY ASSESSMENT process readily accommodates the source information (e.g., in the units provided or through use of established conversion factors). Examples of this type of source include a "grab"/manual effluent sample process, or using readings from a temporary or handheld monitor.

(site-specific meteorological parameter) - List each meteorological parameter necessary to accomplish the primary and alternate EMERGENCY ASSESSMENT methods described in the site emergency plan or implementing procedures. For example, a list might include:

- Upper level wind speed
- Lower level wind speed

[1] NUREG-1022, Revision 3, states, that a viable compensatory action is one that can restore a required function in a reasonably comparable manner. Three hours is considered to be a reasonable timeframe for use of an alternative effluent parameter source given the availability of operational parameters and field monitoring results to support initial EAL and PAR assessments. In addition, studies and operating experience have indicated that releases of a magnitude sufficient to warrant protective actions for the public are highly unlikely to occur within the first 3 hours of an accident. Finally, this timeframe is consistent with similar guidance contained in NUREG-0737.

- Upper level wind direction
- Lower level wind direction
- Upper level differential temperature/stability class
- Lower level differential temperature/stability class

Add as many table rows as necessary to include all parameters.

(site-specific primary and alternate sources #2) – List the primary and alternate sources for obtaining a given meteorological parameter as described in the site emergency plan or implementing procedures. For example, a list may include a primary metrological tower (as the primary source) and a backup meteorological tower (as an alternate source) as sources for upper level wind speed.

Parameter Sources should be limited to those available in the Control Room. Remote sources may be listed provided that there is a process in place to readily provide the parameter information to the Control Room.

If desired, developers may include lists of site-specific systems, structures and components within the RALs or in referenced tables.

Developers should incorporate site-specific terminology where appropriate.

3.2 REPORTABLE EVENT: A MAJOR LOSS OF OFFSITE RESPONSE CAPABILITY

Example Reportable Event Action Levels: (1 or 2)

Note: Review both the RALs and the Basis section information before making a report.

(1) a. The occurrence of a significant natural hazard (e.g., earthquake, hurricane, tornado, flood, major winter storms, etc.) or other event of similar scope and impact.

AND

b. The hazard or event results in **ANY** of the following:

1. An ORO agency has provided information indicating that they are unable to implement protective measures for the public as described in their emergency plans if an actual radiological emergency was to occur (e.g., key evacuation routes are impassable, loss of response infrastructure, etc.).

OR

2. Information has been received indicating a high likelihood that augmenting ERO personnel coming from offsite locations could not report to their on-site response locations within (site-specific time #1) of an emergency declaration if an actual radiological emergency was to occur.

OR

3. Information has been received indicating a high likelihood that **ANY** of the ERFs listed in Table A could not be activated within the specified timeframes following an emergency declaration if an actual radiological emergency was to occur.

Table A

ERFs	Timeframe
Primary Technical Support Center	(site-specific time #2)
Primary Operational Support Center	(site-specific time #2)
Primary Emergency Operations Facility	(site-specific time #2)

OR

4. Information has been received indicating a high likelihood that **ANY** of the following local offsite support agencies could not respond the site within 1 hour of notification if their assistance was required.

   (site-specific list #1)

(2) a. Loss of **ANY** of the following primary ANS equipment for greater than 1 hour:

   (site-specific list #2)

   AND

b. **ANY** of the following:

1. There is no FEMA-approved backup alerting method(s) that can be implemented for the area affected by the lost primary system capability.

   OR

2. The affected equipment is not expected to be returned to service within 24 hours.

   OR

3. The affected equipment was not returned to service within 24 hours.

Basis:

This Reportable Event addresses a major loss of offsite response capability that could prevent the on-shift staff from obtaining needed response assistance or offsite officials from implementing key functions needed for protection of the public if an emergency were to occur. The failure of an individual system or facility that comprises a capability is reportable only to the extent that the failure meets this threshold. It is expected that a report will be made only as a result of an ongoing condition.

For RAL #1, impediments to evacuation such as fog, snow, and ice, should generally not be reported if they are within the respective capabilities of the licensee, state, or local officials to resolve or mitigate. Rather, the reporting requirement is intended to apply to more significant cases such as the conditions around the Turkey Point Nuclear Plant after Hurricane Andrew struck in 1992 or the conditions around the Cooper Nuclear Station during the Midwest floods of 1993.

For RAL #1, the OFFSITE RESPONSE ORGANIZATION (ORO) agency should that with primary responsibility for coordinating implementation of immediate protective measures for the public as described in offsite emergency plans. This would typically be the lead state emergency management agency. Depending upon assigned offsite emergency plan responsibilities, a county or local community emergency management agency could also provide this information.

All elapsed times specified in the above RALs (e.g., 1 hour) begin with:

- the time that the structure or equipment was intentionally removed from service (e.g., for planned maintenance or upgrading), or
- the time of structure or equipment failure, if known, or
- the time of discovery if neither of the above conditions apply.

A report is not required if the lost capability affects only an alternate or backup EMERGENCY RESPONSE FACILITY (ERF) or ALERT NOTIFICATION SYSTEM (ANS) component.

For RAL #1.b.4, 1 hour was included to account for varying agency locations (e.g., distances from the site) and the potential for successful site access using an alternate route. For RAL #2, the 1 hour and 24 hour threshold values reflect guidance provided in NUREG-1022.

Developer Notes:

(site-specific time #1) - Enter the elapsed time goal for the arrival of augmenting ERO personnel to the site as described in the emergency plan (e.g., 30 or 60 minutes). If different time values are specified, use the lowest value. Revise the RAL wording as necessary if the time value(s) described in the emergency plan are referenced to a start time other than emergency declaration (e.g., initiation of ERO callout).

(site-specific time #2) – Enter the elapsed time goal for activation of the TSC, OSC and EOF as described in the site emergency plan or implementing procedures (e.g., 60 or 75 minutes). Revise the RAL wording as necessary if the time value(s) described in the emergency plan or implementing procedures are referenced to a start time other than emergency declaration (e.g., initiation of ERO callout).

(site-specific list #1) – List the local offsite support agencies that may be requested to respond to the site, as described in the emergency plan. These should include the "first responder" agencies that support the on-shift ERO with the initial response to an event and may include a fire department, an ambulance service or local law enforcement. It is not the intent to include organizations that support the augmented ERO (e.g., a reactor vendor specialist who reports to the TSC) or that otherwise are not expected to report to the site during the initial response to an event.

(site-specific list #2) – List the primary ANS components, or combinations of components, that, in the event of their failure, would result in the loss of the capability to alert or notify a large segment of the population in the EPZ. At a minimum, losses of siren control equipment that may be used during an emergency, as described in emergency plans, should be reflected in the component list (e.g., simultaneous loss of the primary and alternate activation/control points). The loss of Emergency Alert System (EAS) radio stations should also be included.

With respect to the specified number and combination of lost sirens, "a large segment of the population" should be taken to mean approximately 25% of the total EPZ population. Depending upon the site-specific ANS design and EPZ characteristics, that may or may not mean

25% of the sirens. Variations in population density/distribution should be considered when identifying potential combinations of lost sirens that could cause this threshold to be exceeded.

Developers should incorporate site-specific terminology where appropriate.

3.3 REPORTABLE EVENT: A MAJOR LOSS OF OFFSITE COMMUNICATIONS CAPABILITY

Example Reportable Event Action Levels: (1 or 2 or 3 or 4 or 5)

Note: Review both the RALs and the Basis section information before making a report.

(1) Loss of the capability to communicate with the NRC – see Tables A, B and C.

Table A – Loss of Emergency Notification System (ENS)			
ENS Method	**Control Room**	**TSC**	**EOF**
ENS Line	✓	✓	✓
(site-specific alternate method #1)	(enter ✓ if appropriate)	(enter ✓ if appropriate)	(enter ✓ if appropriate)
The event is reportable if **ALL** the methods checked above for a given facility are lost.			

Table B – Loss of Health Physics Network (HPN)		
HPN Method	**TSC**	**EOF**
HPN Line	✓	✓
(site-specific alternate method #2)	(enter ✓ if appropriate)	(enter ✓ if appropriate)
The event is reportable if **ALL** the methods checked above for a given facility are lost.		

Table C – Loss of Emergency Response Data System (ERDS)			
Method	**Control Room**	**TSC**	**EOF**
ERDS is not available	✓	✓	✓
The ENS Methods (primary and alternate) listed in Table A are lost.	✓	✓	✓
The event is reportable if both conditions checked above for a given facility are met.			

(2) Loss of the capability to communicate with OROs – see Table D.

Table D – Loss of ORO Communications			
Communications Method	**Control Room**	**TSC**	**EOF**
(site-specific primary method #1)	✓	✓	✓
(site-specific alternate method #3)	(enter ✓ if appropriate)	(enter ✓ if appropriate)	(enter ✓ if appropriate)
The event is reportable if **ALL** the methods checked above for a given facility are lost.			

(3) Loss of the capability to notify the ERO – see Table E.

Table E – Loss of ERO Notifications
Notification Methods
(site-specific primary method #2)
(site-specific alternate method #4)
The event is reportable if **ALL** the methods listed above are lost.

(4) Loss of the capability to communicate between primary ERFs – see Table F.

Table F – Loss of ERF Communications			
Notification Method	**Control Room**	**TSC**	**EOF**
(site-specific primary method #3)	✓	✓	✓
(site-specific alternate method #5)	(enter ✓ if appropriate)	(enter ✓ if appropriate)	(enter ✓ if appropriate)
The event is reportable if **ALL** the methods checked above for a given facility are lost.			

(5) Loss of communications capability between offsite field monitoring teams and their controlling ERF – see Table G.

Table G – Loss of Monitoring Team Communications
Communications Methods
(site-specific primary method #4)
(site-specific alternate method #6)
The event is reportable if **ALL** the methods listed above are lost.

Basis:

This Reportable Event addresses a major loss of communication capabilities that enable a licensee to make notifications and provide follow-up information to federal, state, and local officials; and communicate between the site and EMERGENCY RESPONSE ORGANIZATION (ERO) personnel at offsite locations. This reporting requirement is intended to apply to serious conditions during which telecommunications systems can no longer fulfill the communications requirements of the site emergency plan. It is expected that a report will be made only as a result of an ongoing condition.

Each RAL above is focused on the major loss of an offsite communications capability as described in NUREG-1022. Such a condition would generally require the loss of ALL methods employed to perform the function of interest, as described in the site emergency plan and associated implementing procedures. For example, if an EMERGENCY RESPONSE FACILITY (ERF) has a normal (primary) method for OFFSITE RESPONSE ORGANIZATION (ORO) communications and a backup (alternate) method, an event involving a loss of offsite communications capabilities would be reportable only if both the normal method and the backup method are simultaneously unavailable. The unavailability of the normal method alone, or the backup method alone, would not require a report.

The loss of a communications capability resulting from a planned activity (e.g., testing or maintenance) should be reported if the planned or actual outage duration exceeds 72 hours. If the outage is planned for less than 72 hours, a loss should be reported if:

- the affected communication system(s) cannot be restored to service within the activation time goal for the affected ERF(s), as specified in the emergency plan or an implementing procedure, AND
- no VIABLE COMPENSATORY MEASURE is in place.

Although a notification may not be required under 10 CFR 50.72(b)(3)(xiii) in the event of a loss of the ENS, HPN, or ERDS because of the availability of viable alternative communication means, the NRC Operations Center should be informed of any failure of NRC-supplied communications equipment so that the NRC may arrange for repair. The commercial telephone number 301-816-5100 may be used to inform the NRC Operations Center of a failed piece of equipment. At the time the failure is reported, the licensee should be prepared to supply the following information to expedite repair: (1) name of contact at location of failure, (2)

commercial phone number of contact, (3) location of contact (i.e., street address, building number, room number, etc., and (4) any other information that would expedite repair.

If the NRC Operations Center provides the initial notification that an ENS line is out-of-service, then there is no need to make a report provided that one or more of the alternate communications methods listed in Table A are available.

A report is not required if the lost capability affects only an alternate or backup ERF.

Developer Notes:

(site-specific alternate method #1) – Enter the alternate method(s) that may be used by each facility to maintain ENS communications in the event that the ENS line is not available, as described in the site emergency plan or implementing procedures. Add as many table rows as necessary to include all alternate methods and place checkmarks where appropriate.

(site-specific alternate method #2) – Enter the alternate method(s) that may be used by each facility to maintain HPN communications in the event that the HPN line is not available, as described in the site emergency plan or implementing procedures. Add as many table rows as necessary to include all alternate methods and place checkmarks where appropriate.

(site-specific primary method #1) – Enter the primary method used to communicate with the ORO agencies that receive notification of an emergency, for each facility, as described in the site emergency plan or implementing procedures.

(site-specific alternate method #3) – Enter the alternate method(s) that may be used by each facility to communicate with the ORO agencies that receive notification of an emergency, as described in the site emergency plan or implementing procedures. Add as many table rows as necessary to include all alternate methods and place checkmarks where appropriate.

(site-specific primary method #2) – Enter the primary method used to notify the ERO of an emergency during off-hours, as described in the site emergency plan or implementing procedures.

(site-specific alternate method #4) – Enter the alternate method(s) that may be used to notify the ERO of an emergency during off-hours, as described in the site emergency plan or implementing procedures. Add as many table rows as necessary to include all alternate methods.

(site-specific primary method #3) – Enter the primary method that a given ERO ERF uses to communicate with other ERO ERFs, as described in the site emergency plan or implementing procedures.

(site-specific alternate method #5) – Enter the alternate method(s) that a given ERO ERF may use to communicate with other ERO ERFs, as described in the site emergency plan or implementing procedures. Add as many table rows as necessary to include all alternate methods and place checkmarks where appropriate.

(site-specific primary method #4) – Enter the primary method used by offsite field monitoring team personnel to communicate with their controlling ERF, as described in the site emergency plan or implementing procedures.

(site-specific alternate method #6) – Enter the alternate method(s) that may be used by offsite field monitoring team personnel to communicate with their controlling ERF, as described in the site emergency plan or implementing procedures. Add as many table rows as necessary to include all alternate methods.

Developers should incorporate site-specific terminology where appropriate.

NEED STAFF INPUT/POSITIONS

OPEN ITEM #1 – events that are "ongoing" vs. 3-year look-back – what's reported?

2.2 Differences in Tense between 10 CFR 50.72 and 50.73

> The present tense is generally used in 10 CFR 50.72 because the event or condition generally would be ongoing at the time of reporting. The past tense is used in 10 CFR 50.73 because the event or condition is generally past when an LER is written. However, ***unless otherwise specified***, events that occurred within 3 years of the date of discovery are reportable under 10 CFR 50.72 and 50.73 regardless of the plant mode or power level and regardless of the significance of the structure, system, or component (SSC) that initiated the event. Specific criteria in Section 3 of this report contain additional details for when tense, plant mode, power level, and significance of the SSC that initiated the event are relevant to reportability.

3.2.13 Loss of Emergency Preparedness Capabilities
"Therefore, if all events are reported properly, it is expected that all reports under 10 CFR 50.72 are as a result of an ongoing condition." Is this a case of "***unless otherwise specified***"?

Related staff comment – some after-the-fact reporting may be necessary as a result of enforcement-related discussions and actions.

OPEN ITEM #2 - ALIGMENT OF TERMS

"Accident assessment" vs. "emergency assessment" vs. "dose assessment"
Term usage appears to vary between 10 CFR 50.47(b), Appendix E, Reg Guide 1.219, Manual Chapter 609-App B; and NUREG-1022. Need to clearly define each term and be consistent.