

Emergency Preparedness Changes-Communications

PURPOSE

This attachment will serve as a 10 CFR 50.54(f) request for information from the addressees in response to the NRC Near-Term Task Force (NTTF) Report (ML111861807). Specifically the NRC is requesting information regarding NTTF Recommendation 9.3 regarding the power supplies for communications systems. The NTTF recommended that facility emergency plans provide a means to power communications equipment needed to communicate onsite (e.g., radios for response teams and between facilities) and offsite (e.g., cellular telephones and satellite telephones) during a prolonged station blackout.

REGULATORY REQUIREMENTS/GUIDANCE

1. 10 CFR 50.47 (b) (6) states that provisions should be made for prompt communications among principal response organizations to emergency personnel and to the public.
2. Appendix E to 10 CFR 50, Section IV. E. 9. states that adequate provisions shall be made and described for emergency facilities and equipment, including at least one onsite and one offsite communications system; each system shall have a backup power source.
3. NUREG-0696, Functional Criteria for Emergency Response Facilities, offers guidance on how to meet the requirements of Appendix E to 10 CFR 50 and discusses the onsite and offsite communications requirements for the licensee's emergency operating facilities.

DISCUSSION

During the March 11, 2011, Japan Earthquake and Tsunami, the widespread destruction and loss of electrical power degraded communications capabilities onsite at Fukushima Daiichi and between the site and external stakeholders, such as the local emergency response centers, the Japanese government and TEPCO corporate offices. Normal and emergency offsite communications systems lost power or were degraded by the earthquake and tsunami. Normal and emergency onsite communications were severely impacted by the loss of power to signal repeaters and depleted radio batteries. Accounts of the accident response refer to delays in repair activities caused by issues with the ability to effectively communicate between repair teams and the control rooms and/or the onsite emergency response center.

The NRC requests that the following assumptions be made in preparing responses to this request for information: the potential onsite and offsite damage is a result of a large scale natural event and there is a station blackout for up to 72 hours.

NRC also requests that the licensees consider that a large scale natural event will cause extensive damage to normal and emergency communications systems both onsite and in the area surrounding the site. For example, INPO IER 11-4, Near-Term Actions to Address the Effects of an Extended Loss of All AC Power in Response to the Fukushima Daiichi Event,

suggests that “AC power is not available to cell and other communications infrastructures within 25 miles of the site.”

REQUESTED ACTIONS

Addressees should evaluate their current communications systems and equipment used during an emergency event and determine what enhancements are necessary in response to Recommendation 9.3 in light of the assumptions stated above. It may be necessary to consider new equipment and technologies as part of this evaluation.

REQUESTED INFORMATION

The NRC requests that each addressee provide information on their plans to respond to Recommendation 9.3 regarding communications systems power supplies. Include the following information in the response:

1. the compensatory actions that have already been taken to enhance existing communications systems power supplies after the Fukushima event,
2. the specific improvements that are to be made to existing onsite communications systems and their required normal and/or backup power supplies,
3. the specific improvements that are to be made to existing offsite communications systems and their required normal and/or backup power supplies,
4. a description of any new communications system(s) or technologies that will be deployed to meet the assumed conditions described stated above,
5. a description of how each of the improvements/replacements will be able to perform under the assumed conditions stated above, and
6. a proposed schedule to complete the improvements and deploy the replacements detailed in numbers 2 through 5.

REQUIRED RESPONSE

The addressees should respond to this request for information no later than 90 days from issuance.

If an addressee cannot meet the requested response date, the addressee must provide a response within 60 days of the date of this letter and describe the alternative course of action that it proposes to take, including the basis of the acceptability of the proposed alternative course of action and estimated completion date.

The required written response should be addressed to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, 11555 Rockville Pike, Rockville, MD 20852, under oath or affirmation under the provisions of Sections 161.c, 103.b, and 182.a of the Atomic

Energy Act of 1954, as amended and 10 CFR 50.54(f). In addition, addressees should submit a copy of the response to the appropriate Regional Administrator.

Emergency Preparedness Changes-Staffing

PURPOSE

This letter will serve as a 10 CFR 50.54(f) request for information from addressees to assist NRC staff's response to the NRC Near Term Task Force (NTTF) Report (ML111861807). Specifically, the NRC is requesting information regarding NTTF Recommendation 9.3 to determine and implement the required staff to fill all necessary positions for responding to a multiunit event.

REGULATORY REQUIREMENTS/GUIDANCE

- 10 CFR 50.47(b)(1) states, in part: "... and each principal response organization has staff to respond and to augment its initial response on a continuous basis."
- 10 CFR 50.47(b)(2) states, in part: "... 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 . . ."
- NUREG-0654/FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,"
- Section B. Onsite Emergency Organization, states in part: "5. Each licensee shall specify . . . functional areas of emergency activity. . . These assignments shall cover the emergency functions in Table B-1 entitled, 'Minimum Staffing Requirements for Nuclear Power Plant Emergencies.' The minimum on-shift staffing shall be as indicated in Table B-1. The licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency. This capability shall be as indicated in Table B-1 . . ."

DISCUSSION

The events in Japan have highlighted the importance of responders during all phases of emergency event response. The current regulatory approach provides for emergency response capabilities during a spectrum of postulated reactor accidents. A natural event on the scale of the 2011 Great East Japan Earthquake could present new challenges to personnel and their safety. Specifically, the event had an impact on the existing regulatory framework and the licensee's capability to implement adequate protective measures to protect the public and plant staff. In particular, the non-availability of a sufficient number of onsite staff during the initiation of the emergency condition, the availability of staff designated to augment the current onsite staff, the ability for offsite support to reach the site, and the availability and ability of relief staff to reach the site, all pose challenges that should be considered.

A large scale natural event may alter the planned emergency framework by changing access routes (e.g., bridges washed out, debris blocking roadways, etc.) or disabling emergency sirens.

While several utilities have implemented a combined emergency operations facility (EOF) that is capable of handling multi-unit events, the onsite technical support center (TSC) and operational support center (OSC) at sites with multiple reactors have been designed to handle any emergency at one of the units.

In conjunction with the Emergency Preparedness regulations (ML112070125) published on November 10, 2011, the NRC published on December 5, 2011, in the Federal Register (Vol. 76 No. 233) Interim Staff Guidance in NSIR/DPR-ISG-01(ML1113010523). Section IV.C of that document provides guidance on performing an on-shift staffing analysis, and identified NEI-10-05, "Assessment of On-shift ERO staffing and Capabilities (ML111751698)," as an acceptable methodology for such an analysis. However, this methodology and guidance does not consider multiple unit events involving a large scale natural event with a prolonged SBO.

This letter requests addresses to assess and provide the NRC with information regarding the ability to implement their emergency plan due to a large scale natural event that results in the following assumptions:

- All units affected
- 72 hour station black out
- 72 hours of impeded access

Particularly impacted may be the capability for engineering assessment activities, including repair team planning and preparation. Licensees should therefore ensure that there is sufficient on-site staff and other resources to perform critical tasks until augmentation staff arrives to provide assistance and until other offsite resources become available.

REQUESTED ACTIONS

The addressees should evaluate their current staffing levels and determine the required staff to fill all necessary positions for responding to a multiunit event during an emergency event and determine what enhancements are necessary to meet Recommendation 9.3 in light of the assumptions stated above.

REQUESTED INFORMATION

Provide information on any actions taken to date having to do with response to a large scale natural event that results in a prolonged SBO, affects all nuclear units on the site and impeded access to the site for ERO staff taken or changes made or planned to be made at licensed facilities as a result of Fukushima Dai-ichi lessons learned. Specifically:

1. Describe how onsite staff will perform multiunit repairs to include moving back-up equipment (e.g., pumps, generators) from alternate onsite storage facilities to a repair location at each reactor.
2. Identify, by position or assigned function, the additional staff that will be added for a large scale natural event to mitigate a prolonged SBO that affects multiple units and impedes access to the site. Include a discussion regarding how personnel assigned other

emergency plan implementation functions would not be prevented from the timely performance of their assigned functions as specified in the emergency plan.

3. Identify how the augmented staff will be notified given a loss of communications capability.
4. Identify arrangements that have been made to obtain, transport, install, and operate emergency generator sets, fuel, and other equipment necessary to restore vital AC power to the units. Identify the approximate timeframe to accomplish these tasks.
5. Identify changes that you have made or will make to the emergency plan regarding the pre-arrangements for offsite resources that may be needed during an emergency involving a prolonged SBO, multiple unit event.
6. Identify the methods of access (e.g., roadways, navigable bodies of water and dockage, airlift, etc.) to the site that are expected to be available after a widespread large scale natural event.
7. Identify changes that you have made or will make to the emergency plan regarding locations of decision-making authority (e.g. control room, TSC, OSC)
8. Identify changes that you have made or will make to the ERO description in your emergency plan.
9. Identify those planning standards that would not have an impact on protecting public health and safety.
10. Provide a timetable for implementation of these measures.

REQUIRED RESPONSE

In accordance with 10 CFR 50.54(f), each addressee is requested to submit a written response consistent with the requested information within 90 days of the date of this letter.

If an addressee cannot meet the requested response date, the addressee must provide a response within 60 days of the date of this letter and describe the alternative course of action that it proposes to take, including the basis of the acceptability of the proposed alternative course of action and estimated completion date.

The required written response should be addressed to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, 11555 Rockville Pike, Rockville, MD 20852, under oath or affirmation under the provisions of Sections 161.c, 103.b, and 182.a of the Atomic Energy Act of 1954, as amended and 10 CFR 50.54(f). In addition, addressees should submit a copy of the response to the appropriate Regional Administrator.