



**ENERGY
NORTHWEST**

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June 11, 2012
GO2-12-083

10 CFR 50.54(f)

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

Subject: **COLUMBIA GENERATING STATION, DOCKET NO. 50-397
ENERGY NORTHWEST'S 90 DAY RESPONSE TO THE MARCH 12, 2012
INFORMATION REQUEST RELATED TO RECOMMENDATION 9.3**

- Reference: 1) Letter dated March 12, 2012, from EJ Leeds (NRC) to All Power Reactor Licensees and Holders of Construction Permits in Active or Deferred Status, "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3 and 9.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident"
- 2) Letter, GO2-12-069, dated May 10, 2012, AL Javorik (Energy Northwest) to NRC, "Energy Northwest's 60 Day Response to the March 12, 2012 Information Request Related to Recommendation 9.3"

Dear Sir or Madam:

In Reference 1, the Nuclear Regulatory Commission (NRC) issued the Request for Information for Near-Term Task Force Recommendations related to the Fukushima Dai-ichi accident. In Reference 2, Energy Northwest provided an alternate course of action and estimated completion dates associated with Recommendation 9.3 for Emergency Preparedness (EP) programs. Energy Northwest committed to provide responses to four of the items by June 11, 2012. The requested information is provided in Attachment 1 to this letter. New commitments are identified in Attachment 2 to this letter.

If you have any questions or require additional information, please contact Mr. ZK Dunham at (509) 377-4735.

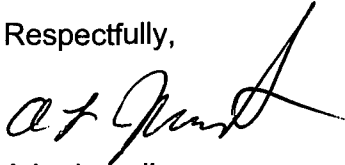
ADD/
NRD

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I declare under penalty of perjury that the foregoing is true and correct. Executed on the date of this letter.

Respectfully,

A handwritten signature in black ink, appearing to read 'A.L. Javorik', with a long, sweeping horizontal stroke extending to the right.

A.L. Javorik
Vice President, Engineering

Attachments: As stated

cc: NRC Region IV Administrator
NRC NRR Project Manager
NRC Senior Resident Inspector/988C
AJ Rapacz – BPA/1399

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Response to Request for Information – Recommendation 9.3 Communications

Request:

2. Describe any interim actions that have been taken or are planned to be taken to enhance existing communications systems power supplies until the communications assessment and the resulting actions are complete.

Energy Northwest Response:

In response to the Institute of Nuclear Power Operations (INPO) Event Report (IER) L1-11-4, "Near Term Actions to Address the Effects of an Extended Loss of All AC Power in Response to the Fukushima Dai-ichi Event," Energy Northwest performed a detailed evaluation of the communication systems that will be available to Columbia Generating Station (Columbia) during a large-scale natural event resulting in a prolonged loss of AC power. The natural event is assumed to cause extensive damage to normal and emergency communication systems both onsite and in the area surrounding the site. The results of the evaluation have been reviewed for the response to this NRC Request for Information.

Energy Northwest determined that the primary means of onsite and offsite communication that will be used during a large-scale natural event are the installed telephone and radio systems. These systems will be used until they become unavailable. However, it cannot be assumed that they will be fully available during a large-scale natural event resulting in a prolonged loss of AC power.

As such, Energy Northwest has identified those systems that will be relied upon in the event the primary means of communication are not available. These systems are identified as the "backup" systems. Actions were initiated to ensure that the backup communications systems have power supplies that will last 24 hours or beyond (using the assumptions in the IER). For Columbia, the backup means for the onsite and offsite communications if the primary means are not available are:

Onsite

- Sound Powered Phones - This system consists of jacks located throughout the plant and the interconnecting wires required to connect them into a single paralleled talk/listen path. Isolation of a faulted zone is possible by using a switch panel. Sound Powered headsets generate the required audio signals and no form of battery or external AC power is required.
- Portable Radio-to-Radio – These portable battery-operated radios have preprogrammed channels with which the user can communicate from portable radio to portable radio without the aid of a repeater.

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Offsite

- **Satellite Phones** - These portable battery-operated phones communicate directly with geosynchronous satellites in orbit.

Interim Actions:

- Energy Northwest has evaluated the sound powered phone system to ensure adequate availability of headsets and interconnecting wires to support the site during an event that takes out the primary communication systems. Procurement is in progress for portable sound powered phone kits, allowing for use in locations where the permanent system may be damaged or otherwise not available. The estimated completion date for this action is 12/31/12.
- Procedures were revised to provide guidance for isolating faulted zones of the sound powered phone system.
- Energy Northwest has determined the increased number of satellite phones and portable radios required for the Operations, Security, Fire Brigade and Emergency Response Organizations to support the site during an event that takes out the primary communication systems. Additional satellite phones, radios and batteries were purchased to meet the coping requirements of IER L1-11-4.
- Batteries and chargers are to be staged in a building that will have a protected backup generator to ensure batteries are available. The estimated completion date for this action is 6/30/13.
- Energy Northwest has provided satellite phones to the Benton County and Franklin County Emergency Operations Centers for use by the local offsite agencies. Satellite phones were already in place for Washington State and the Department of Energy - Richland (DOE-RL).
- Actions are underway to evaluate installation of fixed satellite communications within Columbia's emergency response facilities. The estimated completion date of the evaluation is 12/31/12.
- A preventative maintenance instruction was created for functionality and battery health testing of the portable radios and satellite phones.
- Improvements to the power supplies for the radio paging system are also planned. This system is part of the auto-dialer system which is the primary means of contacting the augmented staff emergency responders. As stated above, this system will be utilized until it becomes unavailable. Two of the transmitters for this system currently have no backup power supply. Projects are in progress to provide battery backup power and portable gas generators to support extended operation of

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these transmitters. The estimated completion date for these activities is 12/31/12. All other transmission sites have backup power.

Response to Request for Information – Recommendation 9.3 Staffing

Request:

3. Identify how the augmented staff would be notified given degraded communications capabilities.

Energy Northwest Response:

As discussed in the response for Item 2 above, the various primary means of communications will be used for notification of augmented staff until they become unavailable. The primary means of contacting emergency responders are the plant public address system and the auto-dialer system, which utilizes the telephone and radio paging systems.

NEI 12-01, "Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities," describes the assumptions for determining which communications systems remain available. Since the communications assessment is not yet completed, it is conservatively assumed for this response that none of the primary means of communication are available.

In order to ensure that the augmented staff will respond as required, emergency procedures are being revised to provide guidance that, in the event of an area-wide loss or degradation of the electrical grid that renders communication systems unavailable, emergency responders are to report to their assigned emergency response facilities during events that could impact the safe operation of Columbia. Emergency staff will be notified of this expectation in the interim by a change management bulletin. Follow-up actions will ensure this information is included in revisions to emergency preparedness (EP) initial and refresher training. These actions are estimated to be completed by 12/31/12.

Request:

4. 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.

Energy Northwest Response:

The primary access to the Columbia site is by land via private automobile. Primarily, personnel will utilize Stevens Drive going north out of Richland, WA. Upon entering the

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Hanford reservation, this highway turns into Hanford Route 4, a four lane divided highway. For purposes of this discussion, "Stevens Drive" will signify that portion of the road south of the Hanford reservation and "Hanford Route 4" will signify that portion of the road on the Hanford reservation.

There are multiple access routes to Stevens Drive from the cities of Pasco, Kennewick, Richland, and West Richland including I-182, WA 240, WA 224 and George Washington Way. There are three separate highways over bridges spanning the Columbia River to provide diverse access from Pasco. There are three separate highways over bridges spanning the Yakima River to provide diverse access from Richland, Kennewick, and West Richland. If Stevens Drive, itself, is unavailable, there are alternate routes that provide access to Hanford Route 4 including WA 225 and WA 240. Two roads off of Hanford Route 4 provide access to the site; these roads are located approximately 2 miles apart. The normal access is provided by the northern access road. If this road becomes unavailable, alternate access can be provided by the southern access road. However, the southern road is more susceptible to flooding since it is located in a depression east of the plant. Use of the southern access road requires personnel walk approximately 0.7 miles to the site.

A plant procedure was developed to address a loss or restriction of site access routes. This procedure details actions to be taken during various community-wide events that may cause restricted access to the plant. This procedure contains alternate routes to the plant and guidance for location of specific offsite marshaling locations where personnel can gather to obtain a means of transport to the site. This procedure also provides guidance on who to contact in case there is a need for alternative transportation to get to the site.

The area around Columbia is semi-arid and varies from generally flat to gently rolling hills without vegetation that could impact access to the site or block roadways. Even with significant damage to roads, such as from a seismic event, the area around the plant is accessible by four-wheel drive vehicles. The plant site is located approximately three miles west of the Columbia River with a ground level elevation approximately 68 feet above the water level estimated for the largest historical flood. In addition, significant margin (17 feet) exists between the maximum flood elevation due to dam failure and the plant elevation. Rather, the design basis flood for the Columbia site results from the thunderstorm Probable Maximum Precipitation event. This event is not an extended event; rather, it is defined as a thunderstorm that yields 9.2 inches in a 5 hour period. For this event, land access will be the primary means for accessing the site. Similarly, range fires could temporarily impede access to the site; however, given the limited vegetation surrounding the site, land access will be restored prior to the 4-6 hour timeframe for "no site access" prescribed by NEI 12-01. A volcanic ashfall event is not expected to impede normal land access to the site. Therefore, due to the location of the site, no specific written agreements for transportation services have been arranged.

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Request:

5. Identify any interim actions that have been taken or are planned prior to the completion of the staffing assessment.

Energy Northwest Response:

Energy Northwest has not added any on-shift or emergency response staff in response to the lessons learned from the Fukushima accident. Unlike the Fukushima Dai-ichi nuclear complex, Columbia is a single-unit site. However, Energy Northwest is assessing initial on-shift emergency response organization staffing for event conditions in response to the requirements of the revised 10 CFR Part 50, Appendix E. Other actions taken or planned relating to communications, notification, and impeded site access are described in the other responses above.

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Attachment 2

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List of Commitments

The following table identifies the regulatory commitments in this document. Any other statements in this submittal intended or planned actions, are provided for information purposes, and are not considered to be regulatory commitments.

Commitment	Scheduled Completion Date
Procure portable sound powered phone kits	12/31/12
Stage batteries and chargers in a building that has a protected backup generator	6/30/13
Evaluate installation of fixed satellite communications within Columbia's emergency response facilities	12/31/12
Provide battery backup power and a portable generator for the radio paging system transmitters that currently have no backup power supply	12/31/12
Revise procedures, issue a change management bulletin, and revise initial and refresher training to provide guidance that, in the event of an area-wide loss or degradation of the electrical grid that renders communication systems unavailable, emergency responders are to report to their assigned emergency response facilities during events that could impact the safe operation of Columbia	12/31/12