



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-8064**

October 15, 2001

EA-01-236

Mr. J. V. Parrish  
Chief Executive Officer  
Energy Northwest  
P.O. Box 968; MD 1023  
Richland, Washington 99352-0968

**SUBJECT: NRC INSPECTION NO. 50-397/01-008; PRELIMINARY YELLOW FINDING**

Dear Mr. Parrish:

On September 24, 2001, the NRC completed an inspection at your Columbia Generating Station. The enclosed report presents the results of that inspection which were discussed with Mr. R. Webring, Vice President, Operation Support, during a video-conference on September 24, 2001.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspection consisted of a review of the implementation of the onsite emergency preparedness program. The inspector reviewed selected documents and procedures, observed activities, and interviewed personnel.

This report discusses a finding that appears to have substantial safety significance. The finding involved the failure to meet the requirements of 10 CFR 50.54(q) in that Columbia Generating Station did not follow and maintain emergency plans and procedures which meet the standards in 10 CFR 50.47(b). Planning Standard 50.47(b)(10) requires the development of a range of protective actions for members of the public. The apparent failure to meet the planning standard was based on: (1) an inability to notify members of the public working at lessee sites in the Columbia Generating Station exclusion area in the event of an emergency, (2) an inability to implement some protective actions provided for in emergency plan implementing procedures for these members of the public, and (3) a lack of provision for radiological monitoring for these members of the public.

This finding was assessed using the Emergency Preparedness Significance Determination Process (SDP) and was preliminarily determined to be Yellow. Yellow issues have a substantial importance to safety and may require additional NRC inspection. The finding has a substantial safety significance under the SDP because it involves an apparent failure to meet a risk-significant emergency planning standard.

The finding also appears to be an apparent violation of NRC requirements and is being considered for escalated enforcement action in accordance with the "General Statement of

Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600. The current Enforcement Policy is available on the NRC's website at [www.nrc.gov/OE](http://www.nrc.gov/OE).

During the September 24, 2001, video-conference, your staff indicated that a regulatory conference would be requested. Accordingly, a regulatory conference to discuss this finding will be scheduled on a date to be determined. During the conference you will be able to provide your perspectives on the significance of the finding, the bases for your position, and whether you agree with the apparent violation. We encourage you to submit your evaluation and any differences with the NRC evaluation at least one week prior to the conference in an effort to make the conference more efficient and effective.

The conference will be open for public observation. The NRC will also issue a press release to announce the conference.

Since the NRC has not made a final determination in this matter, no Notice of Violation is being issued for this inspection finding at this time. In addition, please be advised that the characterization of the apparent violation described in the enclosed inspection report may change as a result of further NRC review.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the Public Electronic Reading Room of the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html>.

Sincerely,

Arthur T. Howell III, Director  
Division of Reactor Safety

Docket: 50-397  
License: NPF-21

Enclosure: Inspection Report 50-397/01-08

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**ENCLOSURE**

U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket No: 50-397  
License No: NPF-21  
Report No: 50-397/01-08  
Licensee: Energy Northwest  
Facility: Columbia Generating Station  
Location: Richland, Washington  
Dates: July 23-27, 2001 (onsite) and review from August 1 through September 24, 2001 (in-office)  
Inspector: Paul J. Elkmann, Emergency Preparedness Inspector  
Approved: Gail M. Good, Chief, Plant Support Branch  
Division of Reactor Safety

## SUMMARY OF FINDINGS

IR05000397-01-08, on 7/23-27/2001 (onsite) and 8/1 through 9/24/2001 (in-office), Energy Northwest, Columbia Generating Station. Emergency action level and Emergency Plan changes.

The inspection was conducted by a regional inspector. This inspection identified one finding and an associated apparent violation. The significance is still being determined but has preliminarily been assessed as Yellow. The significance of issues is indicated by its color (Green, White, Yellow, Red) using IMC0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.

### Cornerstone: Emergency Preparedness

- TBD. One finding and an associated apparent violation of 10 CFR 50.54(q) were identified for the failure to follow and maintain in effect emergency plans and procedures which meet the standards of 10 CFR 50.47(b)(10) for the development of a range of protective actions for the general public. The apparent failure of the licensee's emergency plans and procedures to meet the planning standard was based on: (1) an inability to notify members of the public working at lessee sites in the Columbia Generating Station exclusion area in the event of an emergency, (2) an inability to implement some protective actions provided for in emergency plan implementing procedures for these members of the public, and (3) a lack of provision for radiological monitoring for these members of the public. The licensee has entered this issue into its corrective action program in problem evaluation requests (PER) 201-0569, 201-1614, 201-1615, and 201-1793.

This finding has a credible impact on safety because of the potential to expose members of the public to radiation and/or radioactive material in the event of an emergency if they are not provided with the appropriate protective actions. Using the Emergency Preparedness Significance Determination Process, the NRC preliminarily determined that the finding had substantial safety significance (Yellow) because it represented a failure to meet a risk-significant emergency preparedness planning standard (Section 1EP4).

## Report Details

### **1. Reactor Safety Cornerstone: Emergency Preparedness (EP)**

#### **1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)**

##### **a. Inspection Scope**

This inspection was performed concurrently with an emergency preparedness program inspection which was reported in Inspection Report 50-397/01-04. The inspector reviewed selected documents and procedures and observed siren test activities. The inspector interviewed licensee personnel, including emergency preparedness staff, the WNP1 Contract Officer, a Shift Manager, and two telecommunications (siren) technicians, to determine if there was an effective means in place to evacuate members of the public located within the exclusion area.

In July 2001 the licensee had 4 tenants with employees permanently located at their sites, and 3 tenants with employees who were occasionally present at their sites (these locations were primarily used as storage facilities and lay-down yards). Forty to sixty members of the general public were typically present at lessee sites as employees or visitors. The inspector interviewed 10 lessee personnel located at 4 sites within the plant exclusion area to determine their level of knowledge about, and familiarity with, the site evacuation procedure.

##### **b. Findings**

One finding with potentially substantial safety significance (Yellow) was identified for failure to develop a range of protective actions for members of the public working at lessee sites within the licensee's exclusion area in accordance with 10 CFR 50.54(q) and 50.47(b)(10). This finding also constitutes an apparent violation of these same requirements. Between October 1997 and July 2001 the licensee had not developed a range of protective actions for members of the public working at lessee sites at WNP1 and WNP4 within the licensee's exclusion area. The inspector determined that there was: (1) an inability to notify these members of the public in the event of an emergency, (2) an inability to implement some protective actions provided for in licensee procedures for these members of the public, and (3) a lack of provision for radiological monitoring for these members of the public.

The Statements of Consideration for 10 CFR 50.47, 50.54, and Part 50 Appendix E (45 FR 55402, August 19, 1980, "Emergency Planning") state in part that: "...two guidance documents were published for public comment and interim use. These are NUREG-0610...and NUREG-0654/FEMA-REP-1...It is expected that versions of these documents, revised on the basis of public comments received, will be issued to assist in defining acceptable levels of preparedness to meet this final regulation." Guidance for implementing planning standards is contained in NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 1, 1981. Criteria for implementing §47(b)(10) are found in Planning Standard J, "Protective Response." The following

three evaluation criteria from NUREG-0654 Planning Standard J were not developed and incorporated into the licensee's emergency plan:

- (1) Evaluation Criteria 1 states, in part, "Each licensee shall establish the means and time required to warn or advise onsite individuals who may be in areas controlled by the operator, including...(b) visitors,...(d) other persons who may be in the public access areas on or passing through the site or within the owner controlled area." The NRC determined that this evaluation criteria was not met because:
  - a. The Security Communications Center (the location from which emergency sirens are sounded) could not determine whether onsite sirens were operational when initiated because: (1) the operator was not provided confirmation of operation by the siren control system, and (2) the siren could not be reliably heard inside the protected area (i.e., plant personnel could not be used to confirm operation). Procedures did not direct security personnel (the personnel responsible for siren activation) to determine whether the notification sirens had actually sounded.
  - b. Licensee emergency preparedness personnel determined that the onsite notification sirens were audible outdoors throughout the area used by lessees but were not audible at all indoor locations.
  - c. Licensee procedures did not require testing of the onsite notification siren system. Tests were generally performed on the "crossroad" siren, but were not documented. Because there was no remote activation capability, siren tests were not performed on two WNP1 site sirens. The licensee's method for performing silent siren tests of the "crossroad" siren did not provide positive indication of siren operability.
  - d. Part C to Attachment 6.1 of Plant Procedure Manual (PPM) 13.4.1, "Emergency Notifications," Revision 25, required notification of an emergency classification of alert or higher to the WNP1 designated site authority. However, this procedure was assigned to an emergency operations facility responder which introduced an hour or more delay in its completion following the initial classification (based on the facility activation time). In an emergency, the WNP1 designated site authority would not have been able to accomplish the procedural requirements during the delay period.
  - e. In April 2001, emergency planning staff indicated that procedures did not require Columbia Generating Station site security to sweep the exclusion area to ensure that siren notification occurred and that an evacuation had taken place. In later discussions, the staff stated that security would perform visual checks during an exclusion area evacuation but that active measures, such as knocking on the doors of lessee buildings, would not be performed.



- f. Procedural direction to security personnel did not ensure an ability to determine the extent to which the evacuation has been completed. Security staff were to be dispatched to the WNP1 gate area only on an “as available” basis. Directions to security personnel were contained in several procedures. As a result, a single security patrol could be simultaneously directed to perform multiple duties, such as visually inspecting the intake building at the same time as staffing the WNP1 gate. In the event of an emergency sufficient security patrols may not have been available to complete all the activities directed by both the Columbia Generating Station procedures and the WNP1 Site Evacuation Plan.
  - g. There was an inconsistency between the emergency plan and the implementing procedures regarding the requirement to conduct an evacuation. Emergency plan implementing procedures required exclusion area evacuation at the general emergency classification while the emergency plan required exclusion area evacuation at the site area emergency classification. Because of this inconsistency, an exclusion area evacuation may not have been performed according to the requirements of the emergency plan, resulting in the potential for additional dose to the public located at lessee sites.
  - h. Five of 10 (50 percent) lessee employees interviewed at four locations were either unaware of the existence of the Columbia Generating Station emergency sirens or did not correctly understand the expected response to a siren activation. Several lessee employees stated that when responding to a siren activation they would report to assembly areas and/or monitoring stations, which were actions that they were familiar with from previous experience with the DOE Hanford Site Emergency Plan. Lessee employees could not clearly distinguish between the Hanford Site Emergency Plan and the Columbia Generating Station Emergency Plan.
- (2) Evaluation Criteria 2 states, in part, “Each licensee shall make provisions for evacuation routes and transportation for onsite individuals to some suitable offsite location.” The NRC determined that this evaluation criteria was not met because:
- a. Some lessees were not provided written information about what their actions should be in an emergency, including the use of evacuation routes and modes of transportation. Some lessees were provided with a copy of the WNP1 Site Evacuation Plan without any additional information, explanation, or interpretation. A lessee that had been provided the WNP1 Site Evacuation Plan believed that the plan was no longer valid.

The WNP1 Site Evacuation Plan generally addressed actions to be taken by licensee employees; however, it did not clearly describe its application to lessees. The only specific reference to lessees in the WNP1 site plan was in the “encompassing statement” section. The plan did not identify

actions which were intended to be taken only by licensee employees and which actions applied to all personnel. For those actions which did apply to both licensee and lessee employees, the WNP1 site plan did not identify any differences between them.

- b. The licensee had not established nor communicated expected evacuation routes to the lessees and had not communicated circumstances under which alternate routes would be required. The licensee also lacked methods for directing lessees to alternate locations, if required.
  - c. Some lessee employees did not receive any emergency preparedness information until more than 10 weeks after they began work at the WNP1 site.
  - d. In April 2001, emergency preparedness staff stated that they had not provided direct training about exclusion area evacuation requirements to lessee employees, nor did they intend to provide this training or validate that lessee employers provided this training.
- (3) Evaluation Criteria 3 states that, "Each licensee shall provide for radiological monitoring of people evacuated from the site." Criteria 4 states that: "Each licensee shall provide for the evacuation of onsite non-essential personnel in the event of a Site or General Emergency and shall provide a decontamination capability at or near the monitoring point specified in J.3." The NRC determined that this evaluation criteria was not met because:
- a. In April and May 2001, emergency preparedness staff stated that the emergency plan requirement to provide radiological monitoring at the Energy Northwest Office Complex for personnel evacuated from the exclusion area applied only to Energy Northwest employees (employees of Columbia Generating Station and other company employees located at WNP1) and direct Energy Northwest contractors. The staff also stated that they did not intend to provide radiological monitoring for lessee employees.
  - b. The licensee did not have procedures or notification methods for directing lessee employees to radiological monitoring stations as needed. Lessees had not been provided advance information about radiological monitoring locations, nor were they provided directions or maps.

This finding has a credible impact on safety because of the potential to expose members of the public to radiation and/or radioactive material in the event of an emergency if they are not provided with the appropriate protective actions. The finding was assessed through the "Failure to Meet Regulatory Requirement" branch of the Emergency Preparedness Significance Determination Process because it was an apparent violation of the regulatory requirements of 10 CFR 50.54(q). The finding was preliminarily determined to have substantial safety significance (Yellow) because it represented a failure to meet a risk-significant emergency preparedness planning standard (RSPS) as defined by MC 0609 Appendix B §2.a.

10 CFR 50.54(q) requires, in part, "A licensee authorized to possess and operate a nuclear power reactor shall follow and maintain in effect emergency plans which meet the standards in §50.47(b) and the requirements of Appendix E of this part." 10 CFR 50.47(b)(10) requires, in part, "A range of protective actions have been developed for the plume exposure pathway EPZ for emergency workers and the public." The failure to develop a range of protective actions for lessee employees (members of the public) located in the exclusion area is an apparent violation of 10 CFR 50.54(q). The licensee has entered this issue into its corrective action program in Problem Evaluation Requests (PER) 201-0569, 201-1614, 201-1615, and 201-1793 (AV 50-397/2001-08-01).

#### 4OA6 Management Meetings

##### Exit Meeting Summary

The inspector presented the inspection results to Mr. R. Webring, Vice President, Operation Support, and other members of licensee management during a video-conference exit meeting on September 24, 2001. The licensee acknowledged the findings presented.

The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

## PARTIAL LIST OF PERSONS CONTACTED

### Licensee

D. Coleman, Manager, Performance Assessment and Regulatory Programs  
J. Givin, Security Force Supervisor  
T. Messersmith, Corporate Emergency Preparedness, Safety and Health Officer  
W. Oxenford, Plant General Manager  
T. Poindexter, Attorney, Winston & Strawn  
R. Sherman, Acting Manager, Licensing  
G. Smith, Vice President - Generation  
R. Webring, Vice President - Operation Support  
J. Wyrick, Manager, Resource Protection

### NRC

G. Good, Chief, Plant Support Branch  
A. Howell, Director, Division of Reactor Safety  
W. Jones, Chief, Division of Reactor Projects, Branch E  
W. Maier, Senior Emergency Preparedness Inspector

## ITEMS OPENED, CLOSED, AND DISCUSSED

### Opened

397/01-08-01	AV	10 CFR 50.54(q) violation for failure to meet emergency planning standard 50.47(b)(10)
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## DOCUMENTS REVIEWED

The following documents were selected and reviewed by the inspectors to accomplish the objectives and scope of the inspection and to support any findings.

Columbia Generating Station Emergency Plan, Revision 29

Columbia Generating Station (WNP2) Final Safety Analysis Report sections: §1.2.2.1.2.3, §2.1.1.2, §2.1.1.3, §2.1.2, §2.1.3, §2.2.1

WNP1 Construction Site, Emergency Evacuation and Response Plan, Revision 14

### Plant Procedure Manual:

- PPM 13.2.2, "Determining Protective Action Recommendations," Revision 11
- PPM 13.4.1, "Emergency Notifications," Revision 25
- PPM 13.5.3, "Evacuation of Exclusion Area and/or Nearby Facilities," Revisions 19, 20, and 21

- PPM 13.5.5, "Personnel Accountability, Search and Rescue," Revision 17
- PPM 13.9.8, "River Evacuation Monitoring," Revision 9
- PPM 13.10.1, "Control Room Operations and Shift Manager Duties," Revision 20
- PPM 13.11.10, "Security Manager," Revision 13

PSP 13.1, "WNP1 Designated Site Authority," Revision 8

SWI 1.04, "Indoctrination and Training," Revision 0

SWI 7.01, "Designated Site Authority," Revision 0

TSI 6.2.3.2, "Emergency Response River Siren Polling Test," Revision 3

TSI 6.2.27, "FCC Equipment Operational Tests," Revision 1

Preventative Maintenance Scheduled Activities: Job 02194, Job 08013, Job 09008, Job 09174, Job 09199, and Job 12009

Lease Agreement X40097, between Master-Lee Hanford Corporation and Washington Public Power Supply System

Lease Agreement X40103, between Durametal Brake Company and Washington Public Power Supply System

"Energy Northwest Site 1 and 4 Emergency Instructions," July 2001