

# ENERGY NORTHWEST

P.O. Box 968 ■ Richland, Washington 99352-0968

April 26, 2004  
GO2-04-081

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555

Subject: **COLUMBIA GENERATING STATION, DOCKET NO. 50-397**  
**2004 QUALITY AUDIT EMERGENCY PREPAREDNESS PROGRAM**

Dear Sir or Madam:

Enclosed is a copy of the 2004 Columbia Generating Station, Emergency Preparedness Program Audit Report. This is transmitted to your organization as required by the Columbia Generating Station Emergency Plan, Section 8.3.

The audit did identify minor deficiencies, but none that diminish the program's capabilities in protecting the health and safety of the public in the event of an emergency.

If you have any questions regarding the audit, please contact CM Moore, Supervisor, Emergency Preparedness at (509) 377-4323.

Respectfully,



DW Coleman  
Manager, Regulatory Programs  
Mail Drop PE20

Enclosure: Quality Audit AU-EP-04

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A045



# ENERGY NORTHWEST

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## QUALITY SERVICES AUDIT REPORT

Emergency Preparedness

Audit Report: AU-EP-04

Audit Entrance Date: 02/23/2004

Audit Exit Date: 03/18/2004

### Team Members

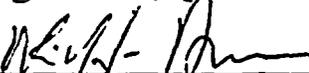
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MJ FERRY, SUPERVISOR, QUALITY SERVICES

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RH TORRES, MANAGER, QUALITY

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## EXECUTIVE SUMMARY

Emergency Preparedness (EP) is clearly on an improving trend. In comparison to the last audit period, EP has demonstrated a stronger sense of ownership and accountability as indicated by prioritization and timely execution of corrective actions, reduction of repeat issues, and timely incorporation of suggestions from emergency response personnel into procedures. Overall, EP and emergency response personnel can implement the Emergency Plan to protect the health and safety of the public.

Recent reorganizations were properly managed and had no impact on the Emergency Plan. The Emergency Response Organization (ERO) staffing depth, knowledge, and qualifications are adequate to support implementation of emergency response actions.

Emergency drills and exercises have prepared the ERO to perform emergency response actions as delineated in the Emergency Plan and implementing procedures. Drill objectives were met and identified problems were entered in the corrective action process. The Institute of Nuclear Power Operations (INPO) recommendations for improving drill reports have been implemented.

Emergency facilities and equipment are maintained in a state of readiness to support emergency response operations. Equipment issues identified in the previous audit have been corrected and facility walkdowns indicated good material condition.

The Emergency Plan and implementing procedures contained the required regulatory elements and provide for effective emergency preparedness, response to emergency situations, and recovery actions. However, the Nuclear Regulatory Commission (NRC) identified that Revision 37 to the Emergency Plan contained a reduction in effectiveness that did not receive prior approval. The inspector stated that this would likely result in a Severity Level IV Non-Cited Violation. EP needs to improve their understanding of Emergency Plan changes concerning reductions in effectiveness.

The NRC EP performance indicators (PIs) were determined to correctly and accurately reflect EP performance. However, the team identified problems with a lower tier departmental PI. The PI published on InsideEN did not reflect actual performance.

Effective lines of communication and good coordination between offsite agencies and Energy Northwest exist. This area continues to sustain good performance as indicated by past and current audit results.

Self-assessments are generally performed to address previously identified problems instead of reviewing performance to determine areas for improvements.

## **PURPOSE AND SCOPE**

This audit was conducted to satisfy the independent inspection requirement specified by Title 10 of the Code of Federal Regulations, Part 50.54(t), and the Operational Quality Assurance Program Description Appendix III, Section 2.2.8 (f). The audit scope included a review of the EP Program elements and an evaluation of adequacy of drills, exercises, procedures, capabilities, and interfaces with government agencies.

## **REPORT DETAILS**

### **Section 1.0 - Organization**

The team reviewed the impact of Energy Northwest's recent departmental reorganization on ERO staffing and response capabilities. These changes were adequately managed to ensure there were no adverse effect on Emergency Plan implementation. Responsibility is assigned for onsite and offsite radiological emergency response preparedness.

Improvements in the administration of EP were noted since the last audit period in the areas of ownership and accountability. During this audit period, a change in the supervision and an emergency planner position occurred. In addition, a position was added to EP. The team identified effective prioritization and timely execution of corrective actions, reduction of repeat issues, and timely incorporation of suggestions from ERO personnel into procedures. EP has taken steps to improve organizational effectiveness and accountability within the line organization by revising SWP-EPP-01, "Emergency Response Organization and Training," to identify responsible departments for each ERO position.

The reorganization of maintenance work teams resulted in a reduction in electrical and mechanical personnel on the back shift from two to none per position on three-out-of-seven days. The duties of one electrical and one mechanical position can be provided for by on shift personnel assigned other duties [i.e., equipment operators (EOs)] in accordance with the Emergency Plan. Call-in response personnel will staff the remaining two positions within 60 minutes. Based on interviews and a review of qualification lesson plans, the team determined that the EOs were adequately trained to perform maintenance craft duties, as described in SWP-EPP-01.

One potential weakness is that Maintenance craft personnel do not carry pagers and must be at home to receive the emergency call-in. Additionally, the response personnel are not assigned to teams; therefore, a select group of responders is not designated to be within one hour of the site and fit for duty. For the most limiting condition, two personnel out of a group of sixteen must be at home and fit for duty. Based on a successful call-in drill with the current organization and a benchmark of Wolf Creek, which indicated similar practices, the team concluded that the risk of not being able to activate the Operations Support Center (OSC) during an emergency is minimal.

## **Section 2.0 - Training**

Based on a review of the Personal Qualification Database (PQD) for twenty-one ERO positions and interviews with select response personnel, the team concluded that the ERO is qualified and adequately trained to perform their duties.

While improvements have occurred in the ability to verify and track ERO qualifications, diligence in ensuring accuracy of ERO personnel listings is needed. The team identified that the alphabetical roster of ERO personnel maintained on InsideEN and the Emergency Phone Directory did not include Maintenance craft personnel. The roster by emergency center included an OSC mechanic who had not been qualified for twelve months. Additionally, a 1999 revision of the Emergency Plan changed an ERO position title without a corresponding change to PQD or SWP-EPP-01. As a result, Condition Reports (CRs) 2-04-00404 and 2-04-00405 were initiated.

## **Section 3.0 - Readiness Testing**

Based on a review of drill and exercise reports, the team concluded that objectives were met and adequately documented, with problems entered in the corrective action process. Practices and procedures enable the ERO to recognize and classify emergencies correctly, assess consequences, notify emergency response personnel, and recommend appropriate protective actions to offsite agencies. EP has improved the drill reports by incorporating the INPO recommendation to clearly identify satisfactory performance of drill and exercise requirements. Each drill objective has a descriptive narrative and a reference to the NUREG-0654 criteria with specific annotation as to the results.

During an observation of a computer simulation by the Scenario Development Committee (SDC) for the upcoming evaluated exercise, unanticipated results from several event programs occurred. The SDC demonstrated a good knowledge of plant operations, simulator programming, and emergency preparedness requirements by resolving each anomaly during the simulation. A review of past Problem Evaluation Requests (PERs) associated with the erroneous simulator data output indicated that they were isolated issues and no programmatic deficiency exists.

## **Section 4.0 - Facilities and Equipment**

Emergency facilities, equipment, and resources are maintained in a state of readiness and support emergency response operations. Equipment issues identified in the previous audit (e.g., field team vehicle accountability and emergency center computer problems) have been corrected. Facility walkdowns indicated a good material condition and acceptable cleanliness levels.

A review of the maintenance history for selected preventative maintenance (PM) items indicated that they were completed at the appropriate frequency within plus or minus 25 percent, which satisfies regulatory requirements. However, the current PM due date calculation settings in Passport allows EP related maintenance items to be performed outside

the scheduled month, quarter, or year as defined by the Emergency Plan. The Emergency Plan defines these frequencies as being "performed or executed any time within the calendar" month, quarter, or year. For example, a monthly PM can have a due late date that occurs outside the scheduled calendar month, but still be within periodicity. This is not consistent with the definition in the Emergency Plan. As a result, CR 2-04-00444 was initiated.

Model work orders (MWOs) generated to track EP periodic equipment testing and checks and administrative reviews are not consistently categorized. The appropriate classification for non-plant related tasks that are entered into Passport for tracking requires clarification. Nine MWOs are classified as "Essential" with the remaining 48 classified as "Other." PPM 1.5.13, "PM Optimization Living Program," states that PMs performed as a result of a commitment to an outside agency, such as the NRC, should be classified as "Essential." The potential for violating a regulatory commitment exist when performance of a PM is deferred. These deferrals require justification and approval regardless of classification. No occurrences of this type of problem were detected. As a result, CR 2-04-00443 was initiated.

## **Section 5.0 - Performance Indicators**

### NRC Performance Indicators

NRC EP PIs are being determined correctly and accurately reflect EP performance. Columbia Generating Station (CGS) procedures provided adequate guidance and appropriately set more demanding thresholds for performance than required by regulatory guidance. The current NRC EP PIs are well within the acceptance range for both NRC and CGS's internally established limits. Trends are stable for Drill/Exercise Performance and Alert & Notification System Reliability and indicate improvement for key personnel participation. The source data was verified to be correct. Calculations were reviewed with no errors noted. The team identified an editorial deficiency in Revision 4 of PPM 1.10.10, "Consolidated Data Entry Process Description," for the formula for calculating EP Drill/Exercise Performance. As a result, CR 2-04-00224 was initiated.

### Department Performance Indicators

The ERO Staffing PI posted on InsideEN did not reflect the yellow conditions identified in the indicator worksheets for September through December 2003 and did not reflect the white condition for January 2004. Attentiveness is required to ensure accuracy of published reports. The PI was correctly determined on the indicator worksheet per EPI-24, "ERO Staffing Depth Performance Indicator," but the wrong information was being transcribed into the published report. EP was aware of yellow condition for ERO staffing, but did not realize the PI report posted on InsideEN was incorrect. As a result, CR 2-04-00536 was initiated.

## **Section 6.0 - State and Local Government Interfaces**

Based on interview results and a review of plans and procedures, the team concluded that effective lines of communication and coordination between offsite agencies and Energy Northwest remain strong. The technical specialist from Wolf Creek Nuclear Operating Corporation performed interviews and toured facilities to assess the adequacy of interfaces with State and local governments. The following organizations were assessed:

- Director Franklin County Emergency Preparedness
- Manager Benton County Emergency Preparedness
- Radiation Health Physicist & Program Manager, State of Washington Department of Health
- Washington Military Department, Emergency Management Division

## **Section 7.0 - Plans and Procedures**

Overall, the Emergency Plan and implementing procedures contained the required regulatory elements and provide for effective emergency preparedness, response to emergency situations, and recovery actions. EP improved the review and tracking process of memorandums of understanding (MOUs) and plans by incorporating detailed procedures in the work management process for scheduled periodic reviews. EP revised the Emergency Plan and 30 implementing procedures to correct identified problems and include recommendations from the ERO, Quality, and INPO. These changes and the associated change management were adequate with the exception of a potential reduction in effectiveness, which did not receive prior NRC approval, for Revision 37 of the Emergency Plan. PER 204-0153 addresses this problem and the need for a better understanding of Emergency Plan changes concerning reductions in effectiveness. This issue will be corrected in next revision of the Emergency Plan and will most likely result in Severity Level IV Non-Cited Violation.

## **Section 8.0 - Problem Identification and Resolution**

### **Problem Evaluation Requests and Corrective Actions**

The corrective action process was effectively applied with regard to problem identification and resolution. A reduction in repeat issues, as compared to the previous audits, was noted and is indicative of effective use of the Corrective Action Program. A review of the corrective actions taken from the last EP audit, 2003 INPO Assist Visit, and 2002 USA Emergency Preparedness Program Assessment indicated that EP addressed each issue and implemented appropriate actions.

The team reviewed ten "Apparent Cause" PERs to assess the resolutions and effectiveness of corrective actions. The team determined that the resolutions were commensurate with the significance of the initiating event and its effect on the implementation of the Emergency Plan. The associated corrective actions were effective in preventing

recurrence based on the absence of repeat issues and a review of the program elements for similar problems.

### Self-Assessments

During the period from April 08, 2002, to the present, EP performed seven self-assessments with three completed within the last year. Review of the self-assessments indicated that they were conducted in accordance with procedure, but generally were performed to address previously identified problems instead of measuring performance to determine areas for improvement; specifically, assessments completed prior to May 2003. Improvements were noted with the most recent self-assessment, which is a detailed evaluation of the effectiveness of corrective actions implemented to address the issues identified in the NRC Yellow Finding of EP. This self-assessment has a clearly stated purpose, scope, and objective with appropriate recommendations for improvement. Based on validation of specific elements and conclusions addressed in the self-assessment, the team concurs with EP's assessment that the corrective actions were effective in adequately addressing the issues that led to the Yellow Finding. One corrective action remains open and is scheduled for completion in March 2004.

## ATTACHMENT A- PERSONNEL CONTACTED

Personnel	Title		
PK Ankrum	TSC Plant/NRC Liaison, Team C		
DK Atkinson	Vice President, Technical Services	*	
DL Beecher	Auditor, Quality Services		#
JE Bekhazi	Manager, Maintenance		#
J Berkey	Radiation Health Physicist & Program Manager, State of Washington Department of Health		
BF Bond	Support Supervisor, Construction & Maintenance Services		#
B Calvert	Manager, Benton County Emergency Preparedness		
P Campbell	Technical Specialist III, Licensing		
AG Carlyle	Technical Specialist, Regulatory Services		
DW Coleman	Manager, Regulatory Programs		#
MS Collins	Auditor, Quality Services		#
KM Engbarth	Assistant to Plant General Manager	*	#
AJ Fahnestock	Acting Manager, Training		#
DS Feldman	Acting Plant General Manager		#
MJ Ferry	Quality Assurance Supervisor		
SR Goodwin	EOF Site Support Manager, Team D		
RE Guthrie	Manager, Operations Training		
BJ Hahn	Auditor, Quality Services	*	#
DB Holmes	Emergency Planner, Emergency Preparedness	*	#
SL Hutchison	Training Specialist, Simulator programmer		
JP Ittner	Emergency Planner, Emergency Preparedness		#
SR Jerrow	Acting Manager, Operations		#
RE Jorgensen	Emergency Planner, Emergency Preparedness	*	#
WA Kiel	Supervisor, Regulatory Services		
F Klauss	Washington Military Department, Emergency Management Division		
C Leon	Emergency Planner, Emergency Preparedness		#
TC Martens	OSC HP Lead, Team A		
RD Madden	Auditor, Quality Services		
DL Moon	EOF PIO Technical Support, Team C		
CM Moore	Supervisor, Emergency Preparedness		#
SA Nappi	Auditor, Quality Services	*	#
LC Oakes	Manager, Site One/HGP		
LS Peters	Lead, Site One/HGP		
ND Price	OSC Equipment Operator		
MS Quintana	EOF Field Team Coordinator, Team B		
MP Reis	Auditor, Quality Services	*	#
SJ Rejniak	Auditor, Quality Services	*	#

CL Robinson	Auditor, Quality Services	#
WH Sawyer	Emergency Planner, Emergency Preparedness	#
SL Scammon	Manager, Resource Protection	* #
J Scheer	Director, Franklin County Emergency Preparedness	
A Torres	Lead Auditor, Quality Services	*
RH Torres	Manager, Quality	* #
RL Webring	Vice President, Nuclear Generation	*
DM Weralu	EOF Field Team Coordinator, Team C	
LS Woosley	EOF Radiation Detection Systems, Augmenting	
PT Ziemer	Emergency Planner, Emergency Preparedness	#
RR Zoeller	OSC Equipment Operator	

\* Audit Entrance Attendee

# Audit Exit Attendee

## **ATTACHMENT B - SUMMARY OF ISSUES**

### **FINDINGS**

None

### **DEFICIENCIES**

- |               |  |
|---------------|--|
| CR 2-04-00224 | Emergency preparedness drill/exercise performance indicator calculation in PPM 1.10.10 is different from the parent guideline of NEI 99-02 |
| CR 2-04-00404 | Administrative issues with ERO listings  |
| CR 2-04-00405 | Unqualified OSC mechanic was listed in the ERO electronic database and in the ERO roster by center   |
| CR 2-04-00443 | Coding of EP model work orders is inconsistent with PPM 1.5.13, "PM Optimization Living Program"   |
| CR 2-04-00444 | PM due date calculation settings allows EP related PMS to be performed outside the scheduled period as defined by the Emergency Plan       |
| CR 2-04-00536 | Departmental performance indicator for ERO staffing did not reflect actual yellow conditions from September to December 2003               |

### **RECOMENDATIONS**

None

DISTRIBUTION

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IM Borland (927R)  
DW Coleman (PE20)  
KM Engbarth (927M)  
DS Feldman (927O)  
JC Hanson (1028)  
RW Hogue (909)  
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