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

January 25, 2000

Mr. J. V. Parrish (Mail Drop 1023)
Chief Executive Officer
Energy Northwest
P.O. Box 968
Richland, Washington 99352-0968

SUBJECT: NRC INSPECTION REPORT NO. 50-397/00-03

Dear Mr. Parrish:

This refers to the inspection conducted on January 10-13, 2000, at the Washington Nuclear Project-2 facility. The inspection focused on the implementation of the radiological environmental monitoring program. The enclosed report presents the results of this inspection. In addition, on January 19, 2000, Messrs. Rhoads and Wooley of your staff and the inspector, Mr. Shannon, had a follow-up telephone call to review one of the inspection findings.

Overall, the NRC concluded that the radiological environmental monitoring program was effectively implemented.

Based on the results of this inspection, the NRC has determined that one Severity Level IV violation of NRC requirements occurred. The violation is being treated as a noncited violation (NCV), consistent with Section VII.B.1.a of the Enforcement Policy. The NCV is described in the subject inspection report. If you contest the violation or severity level of the NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001, with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011, the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Washington Nuclear Project-2 facility.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure(s), and your response, if requested, will be placed in the NRC Public Document Room (PDR).

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

/RA/

Gail M. Good, Chief
Plant Support Branch
Division of Reactor Safety

Docket No.: 50-397
License No.: NPF-21

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NRC Inspection Report No.
50-397/00-03

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E-Mail notification of issuance of all documents to Nancy Holbrook (NBH).

bcc to DCD (IE06)

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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket No.:	50-397
License No.:	NPF-21
Report No.:	50-397/00-03
Licensee:	Energy Northwest
Facility:	Washington Nuclear Project-2
Location:	Richland, Washington
Dates:	January 10-13, 2000
Inspector:	Michael P. Shannon, Senior Radiation Specialist
Approved By:	Gail M. Good, Chief, Plant Support Branch
Attachment:	Supplemental Information

EXECUTIVE SUMMARY

Washington Nuclear Project-2
NRC Inspection Report No. 50-397/00-03

The inspection reviewed the radiological environmental monitoring and the meteorological monitoring programs.

Plant Support

- The radiological environmental monitoring program was effectively implemented. Sampling stations were properly maintained and located as described in the Offsite Dose Calculation Manual. Sample collection logs and receipt forms were controlled in accordance with procedural and management expectations. There were no abnormal plant releases or changes to the Offsite Dose Calculation Manual that adversely affected the radiological environmental monitoring program (Section R1.1).

- An effective meteorological monitoring program was in place. Instrumentation was calibrated in accordance with the commitments of Section 7.5.1.6.2 of the Updated Final Safety Analysis Report. The performance of the meteorological monitoring equipment exceeded the guidance contained in Regulatory Guide 1.23. Appropriate meteorological data were transmitted and displayed in the control room, emergency operations facility, and technical support center (Section R1.2).

- Personnel assigned to collect and process radiological environmental monitoring program samples were fully qualified to perform assigned tasks (Section R4).

- The organization, staffing, and assignment of the radiological environmental monitoring program responsibilities were effectively implemented (Section R6).

- An effective audit of the in-house portion of the radiological environmental monitoring program was performed by qualified auditors. Audit findings were properly documented and tracked in the station's corrective action program (Section R7.1).

- A violation of Technical Specification 5.4.1.c was identified for the failure to audit a contract supplier's environmental thermoluminescent dosimeter quality assurance program (part of the radiological environmental monitoring program). This Severity Level IV violation is being treated as a noncited violation, consistent with Section VII.B.1.a.of the NRC Enforcement Policy. On January 13, 2000, the licensee wrote Problem Evaluation Request 200-0078 documenting this issue (Section R7.1).

- The station captured radiological environmental monitoring and meteorological monitoring program issues at the proper threshold to identify equipment and program problems (Section R7.2).

Report Details

IV. Plant Support

R1 Radiological Protection and Chemistry Controls

R1.1 Radiological Environmental Monitoring Program

a. Inspection Scope (84750)

The radiological environmental monitoring program was reviewed to determine compliance with Technical Specifications and Offsite Dose Calculation Manual requirements. Selected environmental sampling stations were inspected.

b. Observations and Findings

The inspector visited and examined the following media sampling locations: airborne, thermoluminescent dosimeter, and surface and groundwater sample locations. All stations and equipment were properly maintained. All sampling stations were located as described in the Offsite Dose Calculation Manual. Air sampler equipment was calibrated in accordance with procedural requirements using instrumentation traceable to known standards.

No problems were noted during a walk through of the sample preparation, collection, shipping, and analytical processes performed by an Environmental Scientist. Consumable supplies appeared to be adequate to effectively implement the program. From a review of sample collection logs, receipt forms, and analysis results, the inspector determined that these documents were maintained in accordance with procedural requirements and management expectations. Sample analyses were performed in accordance with the requirements of Table 5-1 of the Offsite Dose Calculation Manual.

The inspector determined that the 1998 annual Radiological Environmental Operating Report and the 1998 Radioactive Effluent Release Report sections pertaining to the Meteorological and Offsite Dose Calculation Manual Revisions were submitted in accordance with Technical Specification requirements and contained the required information. The inspector noted that there were no abnormal plant releases or changes to the Offsite Dose Calculation Manual that adversely affected the radiological environmental monitoring program.

The licensee participated in an interlaboratory comparison program as required by Section 5.3 of the Offsite Dose Calculation Manual. No problems were noted during the review of the analytical results from the interlaboratory comparison program.

g. Conclusions

The radiological environmental monitoring program was effectively implemented. Sampling stations were properly maintained and located as described in the Offsite Dose Calculation Manual. Sample collection logs and receipt forms were controlled in

accordance with procedural and management expectations. There were no abnormal plant releases or changes to the Offsite Dose Calculation Manual that adversely affected the radiological environmental monitoring program.

R1.2 Meteorological Monitoring Program

a. Inspection Scope (84750)

The meteorological monitoring program was reviewed to determine agreement with commitments in the Updated Final Safety Analysis Report and the guidance in NRC Regulatory Guide 1.23. The inspector reviewed meteorological data collection and displays at station facilities, instrument calibration procedures, and records to ensure that the meteorological instrumentation was operable, properly calibrated, and maintained.

b. Observations and Findings

During a tour of the meteorological tower's primary and backup instrumentation, the inspector verified that the instrumentation agreed with the commitments in Section 2.3.3 of the Updated Final Safety Analysis Report and the guidance in Regulatory Guide 1.23. No problems or deficiencies were identified with the meteorological towers and the associated instrument indicators in the control room, emergency operations facility, and technical support center.

Calibrations of meteorological instrumentation were performed in accordance with Updated Final Safety Analysis Report commitments and the recommendations of Regulatory Guide 1.23. Data recovery rates exceeded the 90 percent recommendation of Regulatory Guide 1.23 for 1998 and 1999 (95 and 91 percent respectively). The licensee informed the inspector that the decrease in data recovery rates for 1999 was due primarily to the age of the equipment. The system engineer responsible for the meteorological instrumentation informed the inspector that new equipment was scheduled to be installed later this year which should improve the data recovery rate.

c. Conclusions

An effective meteorological monitoring program was in place. Instrumentation was calibrated in accordance with the commitments of Section 7.5.1.6.2 of the Updated Final Safety Analysis Report. The performance of the meteorological monitoring equipment exceeded the guidance contained in Regulatory Guide 1.23. Appropriate meteorological data were transmitted and displayed in the control room, emergency operations facility, and technical support center.

R3 Procedures and Documentation

R3.1 Radiological Environmental Monitoring Program Implementing Procedures

The procedures used for sample preparation, collection, and shipment of environmental media samples were reviewed. The inspector determined that descriptive radiological environmental monitoring program implementing procedures were maintained to ensure compliance with the Offsite Dose Calculation Manual requirements.

R4 Staff Knowledge and Performance

a. Inspection Scope (84750)

Selected environmental monitoring program personnel were observed and interviewed to determine their knowledge of the radiological environmental monitoring program sampling and analyses requirements and implementing procedures.

b. Observations and Findings

There were two environmental scientists qualified to collect and process radiological environmental monitoring program samples. From a review of training records and interviews with these individuals, the inspector determined that these individuals were fully qualified to perform radiological environmental monitoring program assigned tasks. Both individuals demonstrated a strong sense of program ownership for assigned duties.

c. Conclusions

Personnel assigned to collect and process radiological environmental monitoring program samples were fully qualified to perform assigned tasks.

R6 Organization and Administration

a. Inspection Scope (84750)

The organization, staffing, and assignment of the radiological environmental monitoring program responsibilities were reviewed.

b. Observations and Findings

The organizational structure of the radiological environmental monitoring program has remained unchanged since the last inspection. From interviews with personnel involved with the program, the inspector determined that Chemistry/Environmental management provided appropriate support to implement an effective program.

c. Conclusions

The organization, staffing, and assignment of the radiological environmental monitoring program responsibilities were effectively implemented.

R7 Quality Assurance Program

R7.1 Radiological Environmental Monitoring Quality Assurance Program

a. Inspection Scope (84750)

The inspector reviewed quality assurance audits of the radiological environmental monitoring program.

b. Observations and Findings

In-house Audits

There was one quality assurance Radiological Environmental Monitoring Program/Offsite Dose Calculation Manual audit (298-051) performed since the last NRC inspection in July 1998. The audit team consisted of five members, two of whom were technical specialists from other nuclear power facilities. No problems were identified with the auditors' qualifications. Chemistry management was appropriately involved in the planning stages of the audit. The inspector determined that the audit was a comprehensive review of the program and provided management with a good assessment of the radiological environmental monitoring, Offsite Dose Calculation Manual, and meteorological programs.

The audit identified three findings and four recommendations to enhance to the above program areas. The inspector determined that, although important to improving the radiological environmental monitoring program, none of the findings were regulatory issues. All findings were properly documented in the station's corrective action program. All recommendations were closed in a timely manner. Quality assurance originated problem evaluation request reports were properly tracked by the quality assurance department to ensure corrective actions identified adequately addressed the issues.

Vendor Audits

No problems were noted during the review of the Nuclear Procurement Issues Committee Joint Vendor Audit of Teledyne Brown Enviro Services performed between August 31 and September 4, 1998. Teledyne Brown Enviro Services provides analytical services for all environmental samples with the exception of thermoluminescent dosimeter analysis. No findings were identified that adversely affected the services contracted.

On June 8, 1998, the station contracted Battelle Pacific Northwest Division to process environmental thermoluminescent dosimeters. However, as of January 13, 2000, an audit of Battelle Pacific Northwest Division had not been performed to verify the implementation and determine the effectiveness of Battelle's environmental thermoluminescent dosimeter quality assurance program.

Technical Specification 5.4.1.c requires that written procedures be established, implemented, and maintained, covering quality assurance program for environmental

monitoring. Section 3.10.2.1 of Site-Wide Procedure SWP-ASU-01, "Evaluations of Programs, Processes, and Suppliers," Revision 4, stated, that audits shall be planned to verify compliance with and evaluate the effectiveness of applicable aspects of the supplier quality assurance program. Attachment 7.1 of the above procedure stated that the radiological environmental monitoring program will be audited every 12 months. The inspector noted that effective October 20, 1999, the licensee changed the radiological environmental monitoring program audit frequency to a 24-month requirement.

From a review of Table 6.3.1.1.-1 of the Offsite Dose Calculation Manual, the inspector determined that direct radiation (thermoluminescent dosimeters) were listed as a radiological environmental monitoring program sample type. The failure to perform an audit of the above supplier's environmental thermoluminescent dosimeter quality assurance program is a violation of Technical Specification 5.4.1.c. This violation is more than minor because the licensee's quality assurance department failed to identify that thermoluminescent dosimeters were included as part of the radiological environmental monitoring program. This Severity Level IV violation is being treated as a noncited violation, consistent with Section VII.B.1.a.of the NRC Enforcement Policy. On January 13, 2000, the licensee wrote Problem Evaluation Request 200-0078 documenting this issue (50-397/0003-01).

c. Conclusions

An effective audit of the in-house portion of the radiological environmental monitoring program was performed by qualified auditors. Audit findings were properly documented and tracked in the station's corrective action program. A violation of Technical Specification 5.4.1.c was identified for the failure to audit a contract supplier's environmental thermoluminescent dosimeter quality assurance program which was part of the radiological environmental monitoring program. This Severity Level IV violation is being treated as a noncited violation, consistent with Section VII.B.1.a of the NRC Enforcement Policy. On January 13, 2000, the licensee wrote Problem Evaluation Request 200-0078 documenting this issue.

R7.2 Problem Evaluation Request Reports and Corrective Actions

a. Inspection Scope (84750)

Selected problem evaluation request reports were reviewed to evaluate the effectiveness of the licensee's controls in identifying, resolving, and preventing problems.

b. Observations and Findings

The inspector reviewed problem evaluation request reports relating to the radiological environmental monitoring and meteorological monitoring programs and determined that the station captured issues at the proper threshold to identify equipment and program problems. Overall, corrective actions were closed in a timely manner and proper to resolve repeat problems.

c. Conclusions

The station captured radiological environmental monitoring and meteorological monitoring program issues at the proper threshold to identify equipment and program problems.

V. Management Meetings

X1 Exit Meeting Summary

The inspector presented the inspection results to members of licensee management at an exit meeting conducted on January 13, 2000. The licensee acknowledged the findings presented. No proprietary information was identified.

ATTACHMENT

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

A. Barber, Supervisor, Quality Services
S. Boynton, Manager, Quality
M. Collins, Supervisor, Quality Services
D. Coleman, Manager, Regulatory Affairs
J. Hanson, Manager, Chemistry
W. Kiel, Supervisor, Regulatory Services
T. Northstrom, Supervisor, Environmental Laboratory
C. McDonald, Supervisor, Training
J. McDonald, Environmental Scientist
G. Smith, Vice-President/Plant General Manager
R. Webring, Vice President, Operations Support
G. Wooley, Supervisor, Supply Quality

NRC

J. Rodriguez, Resident Inspector

INSPECTION PROCEDURE USED

IP 84750 Radioactive Waste Treatment and Effluent and Environmental Monitoring

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

50-397/0003-01	NCV	Failure to perform an audit of the radiological environmental monitoring program thermoluminescent dosimetry (Section R7.1).

LIST OF DOCUMENTS REVIEWED

Problem evaluation request reports relating to the radiological environmental monitoring and meteorological monitoring programs written since July 1998.

Quality Program Documentation

Quality Department Audit Report 298-051, “REMP, ODCM, and Radiological Effluent Monitoring”

NUPIC Joint Audit EO-2851, “Teledyne Brown Enviro Services”

EN-QA-004, “Operational Quality Assurance Program Description,” Revision 32

SWP-ASU-01, “Evaluations of Programs, Processes, and Supplies,” Revision 5

Procedures and Instructions

EALI 4.0, “Radiological Environmental Monitoring Program Records Control,” Revision 0

EALI 4.12, “Airborne Samples Distribution, Collection, and Shipping,” Revision 1

EALI 4.19, “Drinking, Discharge, and River Water Sample Collection,” Revision 0

EALI 4.21, “Groundwater Collection,” Revision 0

PPM 1.10.2, “Routine or Periodic Reports Required by Regulatory Agencies,” Revision 12

PPM 1.11.1, “Radiological Environmental Monitoring Program,” Revision 8

PPM 16.13.2, “Annual Radiological Environmental Operating Report,” Revision 0

PPM 16.13.1, “Annual 5-Mile Land Use Census,” Revision 1

Reports

1998 Annual Radiological Environment Operating Report

Sections 5.0 and 7.0 of the 1998 Radioactive Effluent Release Report