

APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION  
REGION IV

NRC Inspection Report: 50-267/84-31

License: DRP-34

Docket: 50-267

Licensee: Public Service Company of Colorado (PSC)  
P. O. Box 840  
Denver, Colorado 80201

Facility Name: Fort St. Vrain Nuclear Generating Station (FSV)

Inspection At: Denver and Platteville, Colorado

Inspection Conducted: November 13-16, 1984

Inspector:

*B. Wise Murray*  
for R. Wise, Radiation Specialist, Facilities  
Radiological Protection Section

*12/18/84*  
Date

Approved:

*B. Murray*  
B. Murray, Chief, Facilities Radiological  
Protection Section

*12/18/84*  
Date

*M. E. Ireland*  
for R. E. Ireland, Chief, Special Projects  
and Engineering Section, Project Branch 1

*12/27/84*  
Date

Inspection Summary

Inspection Conducted November 13-16, 1984 (Report 50-267/84-31)

Areas Inspected: Routine, unannounced inspection of the licensee's radiological environmental monitoring program for operations including: (1) organization and management controls; (2) audits of contractors; (3) environmental monitoring program implementation; (4) analytical quality control; (5) tour of selected environmental sampling stations; (6) meteorological tower and equipment; and (7) reportable occurrences. The inspection involved 30 inspector-hours onsite by one NRC inspector.

Results: Within the seven areas inspected, no violations or deviations were identified. One open item is discussed in paragraph 3.b.

DETAILS

1. Persons Contacted

PSC

J. W. Gahm, Manager, Nuclear Production Division  
\*F. J. Novachek, Technical/Administrative Services Manager  
\*L. W. Singleton, Manager, Quality Assurance  
\*F. J. Borst, Support Services Manager  
\*M. J. Ferris, Quality Assurance Operations Manager  
\*M. E. Nickoff, Site Engineering Manager  
V. J. McGaffie, Radiochemistry Supervisor  
D. J. Brown, Instrument and Controls Supervisor  
J. R. Johns, Supervisor, Nuclear Licensing

Others

G. L. Plumlee III, NRC Senior Resident Inspector  
J. E. Johnson, Professor, Department of Radiology and Radiation Biology,  
Colorado State University, (CSU)  
M. McDonald, Analyst, (CSU)  
S. Clow, Analyst, (CSU)

\*Denotes those present during the exit briefing on November 16, 1984.

2. Open Items Identified During This Inspection

<u>Open Item</u>	<u>Description</u>	<u>Paragraph</u>
267/8431-01	Management Control Procedures	3.b

Open items are matters that require further review and evaluation by the inspector or the licensee. Open items are used to document, track, and ensure adequate followup on matters of concern to the inspector.

3. Organization and Management Controls

The NRC inspector reviewed the licensee's organization and recent changes to verify agreement with requirements in the Technical Specifications and commitments in the Updated Safety Analyses Report (USAR).

a. Organization

The NRC inspector reviewed the organization and recent changes within the Nuclear Production Division which were effective September 1, 1984. These organizational changes are outlined in an interdepartment memorandum, PPC-84-2334, issued September 5, 1984. The responsibility for management of the radiological environmental monitoring program (REMP) was transferred from the Nuclear Emergency



Division at the corporate level to the Nuclear Production Division at FSV. The current organizational structure and staffing appear sufficient to meet the requirements for an adequate environmental radiation surveillance program.

No violations or deviations were identified.

b. Management Controls

The NRC inspector reviewed Procedure Q-1, "Organization and Responsibilities," Revision 4, August 27, 1982, and the support services manager's position description for assignment of responsibilities for the REMP. The support services manager's position description had been revised and contained a list of duties associated with the REMP. Procedure Q-1 had not been revised to reflect the current organizational changes and the current position of the support services manager with his assigned responsibilities.

The licensee stated that a proposed charter of responsibilities for the support services manager which will include more detailed responsibilities for the REMP is scheduled for completion in January 1985.

This matter is considered an open item (267/8431-01) pending the revision of procedure Q-1 for the radiological environmental monitoring program.

No violations or deviations were identified.

4. Audits

The NRC inspector reviewed the licensee's audit program to verify agreement with Quality Assurance Administrative Procedure Q-1, Revision 1, March 22, 1984.

The REMP is performed under contract by CSU which is responsible for collection, processing, and analysis of environmental samples. The NRC inspector reviewed the licensee's audit program for contractor activities associated with the REMP to determine compliance with the Technical Specifications and the USAR. The NRC inspector reviewed the following audits:

- a. Quality Assurance Audit, QAA-603-83-01, "Radiological Environmental Monitoring," July-August 1983.
- b. Nuclear Facility Safety Committee Audit, NFSC-J-84-01, "Radiological Environmental Monitoring Program," August 1984.

The NRC inspector noted that the QA audit was designed to determine compliance with the contract; and that the NFSC audit was a followup to the QA audit and was a more detailed technical audit of the contractor's

analytical program. The NFSC audit generated two corrective action requests which had not yet been resolved at the time of this inspection.

The NRC inspector discussed future audit activities with the licensee and noted that a more detailed review of the contractor's performance in the Environmental Protection Agency (EPA) crosscheck programs is planned. The licensee has an established program for tracking responses and appropriate corrective action requests.

No violations or deviations were identified.

5. Environmental Monitoring Program Implementation

The NRC inspector reviewed the licensee's REMP against the requirements contained in Technical Specifications SR 5.9.1 (terminated November 22, 1983) and ELC0 8.2.1 (effective November 23, 1983) for the period June 23, 1983, through November 16, 1984.

The licensee had amended (Amendment 37) their Radiological Effluent Technical Specifications in November 1983 to be in agreement with format in NUREG 0472. As discussed in paragraph 4, the REMP is conducted by CSU under contract with PSC. The NRC inspector reviewed a copy of CSU's REMP procedures which contain: (1) route procedures, (2) sample collection procedures, (3) sample processing procedures, (4) TLD procedures, (5) texture analysis, (6) gross beta analysis, (7) gamma analysis, (8) calibration procedures, (9) EPA crosscheck, and (10) sample locations.

The NRC inspector reviewed the 1983 semiannual environmental reports and noted that the requirements of the Technical Specifications had been met; however, the NRC inspector noted that CSU's EPA crosscheck results for gamma analysis exceeded the precision limits specified by EPA. The licensee stated that quarterly meetings are conducted with CSU personnel to review preliminary analytical results and PSC will review EPA crosscheck results and recommend corrective action as may be required.

No data for 1984 was as yet available for review at the time of the inspection.

No violations or deviations were identified.

6. Analytical Quality Control

The NRC inspector reviewed the quality control program for radiological analytical measurements at CSU and noted that CSU's laboratory performance in the EPA crosscheck program is satisfactory in most areas; however, the gamma analysis results exceeded the precision limits established by EPA. The laboratory performance should improve with the acquisition of a new gamma spectroscopy detector. These results will be reviewed when available in the annual environmental report for 1984 and during future inspections. CSU also participates in a crosscheck program with the state of Colorado.

No violations or deviations were identified.



7. Tour of Environmental Sampling Stations

The NRC inspector visited selected sampling stations associated with the environmental monitoring program on November 14, 1984. The following type of sites were visited: (1) airborne, (2) direct radiation, (3) surface waterborne, (4) sediment, (5) milk, and (6) aquatic biota.

The required equipment at the selected sampling stations was in place and operable at the time of the visit. The NRC inspector found that one air sample was dust loading at the F4 location. This problem was discussed with the licensee and CSU with a possible solution being the relocation of the air sampler or placing the sample head on the west side of the shed area to reduce the potential of dust loading.

No violations or deviations were identified.

8. Meteorological Tower and Equipment

The NRC inspector reviewed the licensee's meteorological monitoring program to verify agreement with the Technical Specification, the USAR, and the recommendations of (draft) American National Standards Institute (ANSI) 2.5-1984 and Regulatory Guide 1.23.

The NRC inspector reviewed the meteorological tower, data recording equipment, and calibration records. The data are collected at tower heights of 10 and 60 meters. Instrumentation at the 10 meter height provides data on wind speed, wind direction, temperature, and dewpoint. The instrumentation at 60 meters provides data on wind speed and wind direction. Instrumentation from both locations provides data to a data logger and the 60 meter tower provides data to a chart recorder located in the control room. A 10 meter meteorological tower, owned by the National Oceanographic and Atmospheric Administration, is also available to provide backup for the 10 and 60 meter tower equipment.

The NRC inspector noted that the meteorological system equipment is calibrated quarterly. The NRC inspector discussed with the licensee the recommendations of Draft ANSI 2.5-1984 to perform a reliability test to document the instrumentation data recovery to be at least 90 percent for an annual period. The licensee stated that they would review their present program to determine agreement with the ANSI document.

No violations or deviations were identified.

9. Reportable Occurrences

The NRC inspector reviewed the following reportable occurrences documented by the licensee:

- 83-010, "Degraded Mode of Limited Condition of Operation 4.8.2(c)," Liquid Waste Release Without Representative Sampling, Closed, May 10, 1983.
- 83-026, "Limited Condition of Operation 4.8.3, Reactor Building Sump Proportioned Sampler Inoperable," Closed, February 14, 1984.
- 83-046, "Limited Condition of Operation 4.8.1, Unplanned Gaseous Waste Release," Closed, December 13, 1983.
- 83-009, "Liquid Waste Release, Exceeded Maximum Permissible Concentrations for Unidentified Beta," (open).

The NRC inspector verified that the action taken by the licensee regarding the above reportable occurrences was in compliance with the Technical Specification requirements.

10. Exit Interview

The NRC inspector met with the PSC representatives at the conclusion of the inspection on November 16, 1984. The inspector summarized the purpose and scope of the inspection and discussed the inspection findings.