

APPENDIX B

U. S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT  
REGION IV

IE Inspection Report: 50-267/81-24

License DPR-34

Docket: 50-267

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

Facility Name: Fort St. Vrain Nuclear Generation Station

Inspection at: Fort St. Vrain Site, Platteville, Colorado

Inspection Conducted: October 1-31, 1981

Inspectors: *T. F. Westerman for* 11-10-81  
M. W. Dickerson, Senior Resident Reactor Inspector Date

*T. F. Westerman for* 11-10-81  
G. L. Plumlee III, Resident Reactor Inspector Date

Approved By: *T. F. Westerman* 11-10-81  
T. F. Westerman, Chief, Reactor Project Section No. 1 Date

Inspection Summary

Inspection conducted October 1-31, 1981 (Report: 50-267/81-24)

Areas Inspected: Routine, announced inspection of Surveillance; Maintenance; Operational Safety Verification; Licensee Event Follow-Up; Review of Periodic and Special Reports; and IE Circulars. The inspection involved 157 inspection-hours on site by two NRC inspectors.

Results: Within the six areas inspected, three violations were identified (Failure to adhere to Technical Specifications, Paragraph 3.B., failure to follow procedures, Paragraphs 3.A and 4.B.)

1. Persons Contacted

T. Borst, Radiation Protection Manager  
 M. Block, Superintendent of Operations  
 R. Craun, Acting Site Engineering Coordinator  
 M. Deniston, Shift Supervisor  
 D. Evans, Shift Supervisor  
 M. Ferris, Technical Services Engineer  
 W. Franek, Results Supervisor  
 W. Franklin, Shift Supervisor  
 J. Gahm, QA Manager  
 E. Hill, Operations Manager  
 D. Hood, Shift Supervisor  
 J. Liebelt, Senior Maintenance Supervisor  
 M. McBride, Technical Services Manager  
 F. Novachek, Technical Advisor  
 G. Reigel, Shift Supervisor  
 L. Singleton, Superintendent Operations QA  
 J. Van Dyke, Shift Supervisor  
 D. Warembourg, Manager Nuclear Production  
 R. Webb, Maintenance Supervisor

The NRC inspector also contacted other plant personnel including reactor operators, maintenance men, electricians, technicians and administrative personnel.

The regional SALP meeting with PSC management was also conducted during the period of this report. A subsequent report will be issued.

2. Licensee Action on Previous Inspection Findings

(Closed) Violation (50-267/8111-01): Tritium concentration in cooling tower blowdown water discharge exceeded 10 CFR 20 limits. Procedural controls are in effect while design change considerations are being investigated by the licensee. The design changes are considered as an unresolved item. (8124-05)

(Closed) Violation (50-267/8111-02): System Status Tags in place but System Abnormalities Deviation Forms indicated system returned to normal. The licensee issued a speedy memo to operators regarding the problem and has replaced the System Abnormalities Book with three separate books containing: (1) Temporary Change Reports, (2) Clearances, and (3) Operations Deviations Reports.

(Closed) Violation (50-267/8112-02): Surveillance test records indicated approval even though these records contained data omissions and data outside the prescribed acceptance criteria. The errors have been corrected, level 1 Procedure P-4 has replaced Administrative Procedure 13, and a group has been established to review and rewrite Surveillance Test Procedures. Completion of this review is scheduled for March 1, 1982. Completion of this review is considered an unresolved item. (8124-06)

(Closed) Violation (50-267/8113-01): Concentration of total residual chlorine in the non-radioactive liquid effluent exceeded that specified in Technical Specification LCO NR 1.1. No violation was determined to have occurred since the licensee returned the concentration within the time allowed and was therefore not reportable.

(Closed) Violation (50-267/8113-02): Total Phosphate on February 24, 1981, exceeded the 50% limit, and the daily samples required by Technical Specification SR NR 1.1(b) were not taken. The daily samples not taken cannot be taken to backfit the requirement. However, the error was discussed by the licensee with members of the Water Chemistry Department and a rewrite of Surveillance Procedure SR NR 1.1 was completed, which included a better explanation of the requirements.

(Closed) Violation (50-267/8113-03): Seventeen of 20 weekly surveillances NR 1.1-W had been started on Friday, but the Shift Supervisor's approval to start the surveillances had not been given until the following Monday. The day of issuance of the tests was changed to coincide with the Shift Supervisor's approval on Mondays.

(Closed) Violation (50-267/8113-06): The printer for RR 93256, "Effluent Activity Monitor," was found secured and recorder RR 93254, "Area Monitor," was found not to have been returned to service following a surveillance. An Operations Surveillance test was written to assure that all recorders are in service and requires sign-off by the operator each shift. For RR 93254 discussions were held by the licensee with the surveillance test conductor to reiterate his responsibilities. Additionally, Surveillance SR 5.4.9-W was rewritten so that it is now consistent with a standardized format for surveillance tests, and requires the test conductor to return the recorder to normal in a more appropriate part of the test.

(Closed) Violation (50-267/8113-07): Nine Standard Clearance Points Forms with auxiliary tags had not been checked off as required by Procedure P-2. All clearances were audited by the licensee for conformance to requirements and all personnel involved in equipment clearances and operations deviations were required to review the requirements as set forth in Administrative Procedure P-2.

(Closed) Violation (50-267/8113-09): The north stairwell access radiation barrier to the refueling floor was not in place as required by Health Physics Procedure HPP-9. The barrier was immediately replaced and appropriate marking devices were and will be provided independent of the barrier marking.

### 3. Operational Safety Verification

The NRC inspector reviewed licensee activities to ascertain that the facility is being operated safely and in conformance with regulatory requirements, and the licensee's management control system is effectively discharging its responsibilities for continued safe operation. The review was conducted by direct observation of activities, tours of the facility, interviews and discussion with licensee personnel, independent verification of safety system status and limiting condition for operations, and review of facility records.

Included in the inspection were observation of control room activities, review of operational logs, records, and tours of accessible areas. Logs and records reviewed included:

- . Shift Supervisor Logs
- . Reactor Operator Logs
- . Equipment Operator Logs
- . Auxiliary Operator Logs
- . Technical Specification Compliance Logs
- . Operations Order Book
- . Operations Deviations Reports
- . Clearance Log
- . Temporary Configuration Reports
- . Plant Trouble Reports

During tours of accessible areas, particular attention was directed to the following:

- . Monitoring Instrumentation
- . Radiation Controls
- . Housekeeping
- . Fluid Leaks
- . Piping Vibrations

- . Hanger/Seismic Restraints
- . Clearance Tags
- . Fire Hazards
- . Control Room Manning
- . Annunciators

The operability of selected systems or portions of systems were verified by walkdown of the accessible portions. The NRC inspector verified the operability of the Alternate Cooling Method System. No problems were identified during the system walkdown.

A. Valve Not Sealed

On October 20, 1981, at 2:20 p.m. MDT, during a tour of the reactor building, the NRC inspector determined that V-22184, Loop I Main Steam Electromatic Relief Valve Shutoff Valve, was not sealed. Reactor power was approximately 34%.

Procedure P-2 requires equipment to be returned to normal upon return of a clearance. The normal position of V-22184 is as stated in the Sealed Valves Checklist and, in accordance with Procedure OPOP III, is required to be in the sealed open position when reactor power is greater than 2%.

A review of the Operations Log for October 15, 1981, indicated that V-22184 was shut at 9:20 a.m. MDT, and reopened at 7:10 p.m. MDT, during maintenance on V-22368, V-22184 Bypass. Clearance number 2310, which returned Loop I to service, had been returned at 5:45 p.m. MDT. The NRC inspector noted that the failure to seal V-22184 upon completion of maintenance activities is a repeated occurrence. The previous occurrence was documented in IE inspection report 50-267/81-18, Appendix B, Paragraph 5.

The NRC inspector discussed the above item with the licensee and informed the licensee that failure to follow procedures which are Technical Specification requirements is considered a violation. (8124-01).

B. Removal of Station Battery 1A From Service

On September 11, 1981, at 7:00 p.m. MDT, the licensee removed station battery 1A from service and placed it on routine over-charge. However, the reactor was at power (greater than 2%) and the 1B emergency diesel generator unit was out of service for maintenance.

Technical Specification LCO 4.6.1.e) requires that while operating at power one battery may be removed from service for 24 hours provided several conditions are met. One of the required provisions is that both diesel-generators and their associated essential buses be operable. However, since diesel-generator 1B was out of service for replacement of the outboard bearing on the clutch shaft of 1D engine, the removal of station battery 1A from service constituted a violation of the Technical Specifications. (8124-02)

This violation was found by the licensee and reported in Reportable Occurrence 81-058, dated October 9, 1981. The reportable occurrence also delineated the corrective action completed by the licensee to return the battery to service at 11:45 p.m. MDT, on September 11, 1981, and to preclude further occurrences of this type.

Since the licensee has completed the corrective action for this item and has been reviewed by the NRC, the licensee is not required to respond.

The NRC inspector had no additional questions in this area.

4. Surveillance (Monthly)

The NRC inspector reviewed all aspects of surveillance testing involving safety-related systems. The review included observation and review relative to Technical Specification requirements. The surveillance tests reviewed and observed were:

- SR 5.4.1.3.4.b-M      Circulator Penetration Pressure Test
- SR 5.4.1.3.1.b-M      Circulator Speed (Steam and Water) Test
- SR 5.1.6-W              Core Safety Limit
- SR 5.4.1.3.2.b-M      Feedwater Flow Test
- SR 5.8.1cd-Q            Radioactive Gaseous Effluent System Calibration
- SR 5.4.1.1.4c-D/5.4.1.4.2c-D    Linear Power Channel Heat Balance Calibration
- SR 5.4.1.1.8.b-M      Reheat Scram Temperature Scram Test
- SR 5.4.1.1.8c-R        Reheat Steam Temperature Scram Calibration

A. Fire Retardant Cabinets

During a review of the licensee's calibration records on September 28, 1981, the NRC inspector noted that locking devices were being installed on the storage cabinets. The NRC inspector's review of the licensee's records indicated that the licensee had determined via a Quality Assurance Deficiency Report (QA-DR 669, dated June 1980) that measures were necessary to ensure the safekeeping of these permanent working records as required by ANSI N45.2.9. The cabinet locks were installed as a result of the licensee's Corrective Action-Action Request (CA-AR 209, dated June 1981). During this reporting period through a review of the ANSI/ASME N45.2.9-1979 concerning records storage requirements, the NRC inspector determined that the cabinets used to store the permanent instrument calibration records, as defined by QA-DR 669, do not meet the minimum two hour fire rating requirement.

The above item was discussed with the licensee and the licensee was informed that this matter is considered an unresolved item. (8124-03)

B. Unattended Sources

On October 30, 1981, at 9:00 a.m. MST, the NRC inspector determined that two calibration sources had been left unattended in the turbine building. During the observation of SR 5.8.1cd-Q, Radioactive Gaseous Effluent System Calibration, the NRC inspector accompanied the Health Physics and Results Technicians. During the process of obtaining the needed calibration sources, one source, number 184, was not in the source storage room and was later located on level 6 of the turbine building. The NRC inspector noted that the Health Physics personnel assigned to the source was not in the area and that another source, number 92, had also been left unattended. Procedure HPP-20 requires calibration sources not to be left unattended outside their storage room. Both source numbers 184 and 92 are CS 137 with activity levels measured December 1, 1980, of  $8.6 \text{ E} + 3 \text{ Ci}$  and  $7.98 \text{ E} + 4 \text{ Ci}$ , respectively. Both sources were locked in their respective shielded containers.

The NRC inspector discussed the above item with the licensee and informed the licensee that failure to follow procedures which are Technical Specification requirements is considered a violation. (8124-04)

The NRC inspector had no additional questions in this area.

5. Maintenance (Monthly)

The NRC inspector reviewed records and observed work in progress to ascertain that the following maintenance activities were being conducted in accordance with approved procedures, Technical Specifications, and appropriate Codes and Standards. The following maintenance activities were reviewed and observed:

CN-1313	Radiation Monitors
CN-1314	Buffer Helium Piping - Loop Split
PM 48.1	ACM Diesel Generator Set K-4804 Semi-Annual Preventive Maintenance
PTR 6-59	Remove and Test Snubber BFS-398 E in accordance with MP 98-1, Repair of Hydraulic Pipe Snubbers
CWP 81-251/CN GSAR 243	Remove V-1139 and Associated Piping and Valves from System
CWP 81-250/CN 1427	Isolation of Penetration B-2-3
PTR 10-337	Repair HV 2245 in accordance with EMP 39, Change Out Rotork Switch Mechanism from Mark 1 to Mark 2
TCR-811033	Changes to PPS for CN 1427 to comply with requirements of LCO 4.4.1
TCR-81031	Changes for Pressurization Control of Interspace Pressure for Penetration B-2-3
PTR 10-338/MP-21	Maintenance and Repair of Backup Bearing Water Pump Suction Filter
PM 91.2	Hydraulic Pump and Motor Inspection

No violations or deviations were identified.

6. IE Circular

The NRC inspector verified by record review, observation and discussion with the licensee, the action taken in response to IE Bulletins.

The following Circular was reviewed:

81-13 Torque Switch Electrical Bypass Circuit for Safeguard Service Valve Motors. The licensee has determined that the type of design used at Fort St. Vrain does not utilize the Torque Switch Bypass.

No violations or deviations were identified.

7. Review of Licensee Event Reports

The NRC inspector reviewed licensee event reporting activities to verify that they were in accordance with Technical Specification, Section 7, including identification details, corrective action, review and evaluation of aspects relative to operations and accuracy of reporting.

The following reports were reviewed by the inspector:

80-52	81-017
81-010	81-043
81-015	81-051

8. Report Reviews

The NRC inspector reviewed the following reports for content, reporting requirements and adequacy:

Monthly Operating Information Report, September 1981  
 Monthly Operations Reports, September 1981

No violations or deviations were identified.

9. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, violations or deviations. The unresolved items disclosed in this inspection are:

8124-03 in paragraph 4.A  
 8124-05 in paragraph 2, Item 1  
 8124-06 in paragraph 2, Item 3

10. Exit Interview

Exit interviews were conducted at the end of various segments of this inspection with Mr. D. Warembourg, Manager, Nuclear Production, and/or other members of the Public Service Company staff. At the interviews, the inspector discussed the findings indicated in the previous paragraphs. The licensee acknowledged these findings.