

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

REGION V

Report No. 50-344/78-23

Docket No. 50-344 License No. NPF-1 Safeguards Group _____

Licensee: Portland General Electric Company

121 S. W. Salmon Street

Portland, Oregon 97204

Facility Name: Trojan

Inspection at: Rainier, Oregon

Inspection conducted: October 2-31, 1978

Inspectors: D. M. Sternberg for 11/14/78
M. H. Malinos, Resident Reactor Inspector Date Signed

Date Signed

Date Signed

Approved By: Daniel M. Sternberg 11/14/78
D. M. Sternberg, Chief Reactor Project Section 1 Date Signed
Reactor Operations and Nuclear Support Branch

Summary:

Inspection on October 2-31, 1978 (Report No. 50-344/78-23)
Areas Inspected: Routine inspection by the Resident Inspector of plant operations, maintenance, calibration, review and audit, facility organization, environmental protection operations, and other specific activities independently selected by the inspector. The inspection involved 96 inspector-hours by the NRC Resident Inspector.

Results: Of the areas inspected, no deviations were identified; one apparent item of noncompliance (infraction - failure to perform a surveillance test at the specified frequency - Paragraph 2) was identified in one area.

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DETAILS

1. Persons Contacted

- *B. D. Withers, Plant Superintendent
- *F. H. Lamoureaux, Assistant Plant Superintendent
- R. P. Barkhurst, Operations Supervisor
- D. L. Bennett, Instrument and Control Supervisor (Acting)
- *J. D. Reid, Quality Assurance Supervisor (Acting)
- C. J. Fleming, Administrative Supervisor
- D. F. Kielblock, Training Supervisor
- *W. S. Orser, Engineering Supervisor
- L. W. Quinn, Chemistry Supervisor
- D. J. Thompson, Maintenance Supervisor (Acting)
- T. D. Walt, Radiation Protection Supervisor
- *J. C. Perry, Administrative Engineer
- C. R. Erwin, Environmental Assistant

•The inspector also interviewed and talked with other licensee employees during the course of the inspection. These included shift supervisors, reactor and auxiliary operators, maintenance personnel, plant technicians and engineers, and quality assurance personnel.

*Denotes those attending the exit interview.

2. Plant Operations

a. Facility Logs and Operating Records

The inspector examined the log entries contained in the control room log and the shift supervisor's log for facility operations performed during October 1978. The log entries were found to have been made consistent with the requirements of the facility administrative orders and to accurately reflect the mode 5-cold shutdown status of the facility. Facility logs were reviewed by applicable staff members and operating orders issued by the operations supervisor did not conflict with the intent of the technical specification requirements. Sufficient information was contained in the control room log and the shift supervisor's log to identify potential problems and to verify compliance with technical specification reporting requirements and limiting conditions for operation.

b. Facility Tour and Observation of Operations

Tours of the facility were made by the inspector in the control building, containment structure and the turbine building. During the tours, assessments of equipment and plant conditions were made with the following observations:

- (1) Instrumentation for monitoring the cold shutdown status of the plant was operating.
- (2) Radiation controls were properly established.
- (3) No conditions were observed that represented a fire hazard or personnel safety hazard. Fire protection equipment was found operable.
- (4) Piping systems for those systems in operation did not contain fluid leaks or show evidence of excessive pipe vibrations.
- (5) Detailed systems alignment and operation were verified for the chemical volume control system, spent fuel pool cooling system, and the seismic monitoring system. Compliance with the limiting conditions for operation of the technical specifications for mode 5 operations was verified for these systems.

Surveillance testing of the above systems was examined by the inspector; and, in one case, two valves (112D and 112E) in the chemical volume control system which serve as active valves in the flow path from the refueling water storage tank to the charging pump suction header were found not to have been tested at the specified weekly frequency required by Technical Specifications Nos. 4.1.2.1 and 4.1.2.2. The valves were being treated at the monthly frequency specified in Technical Specification No. 4.5.2, which is also applicable to these valves since they function in both the boration flow path and the emergency core cooling system. Discussions with the licensee revealed that these valves originally were thought to be nontestable during facility power operation, but following initial operation of the facility, operating experience indicated that the valves could be tested (cycled) without introducing unwanted boron into the system. The valves were then placed on the monthly ECCS valve surveillance test and have been successfully tested monthly since commercial operation in 1976. Upon notification by the inspector of the error in the surveillance

test frequency, the licensee immediately revised Periodic Operating Test No. 9-3, Boric Acid Pumps; Alternation and Valve Verification, to require the weekly cycling of these valves as applicable to the mode of operation of the facility. This item of noncompliance was discussed during the exit interviews.

- (6) Control room observations verified that the facility manning was proper and discussions with shift supervisors and control operators revealed that they were cognizant of the effect of annunciated alarms on plant operations. Shift turnovers were found to be performed in accordance with the administrative orders and good watchstanding practices.
- (7) Sampling of the reactor coolant system via the residual heat removal system was observed. The analysis of the sample for gross radioactivity was performed in accordance with the applicable facility procedure. Records of sampling results for the steam generators, primary makeup water tank, refueling water storage tank, and the boric acid storage tanks indicated that the required chemical analyses had been performed at the frequencies specified in the applicable facility procedures.

One item of noncompliance was identified as described above. No deviations were identified.

3. Physical Protection

Based on discussions with licensee representatives, observations, and examinations of facility procedures, the inspector verified that the measures employed for the physical protection of the facility were consistent with the requirements of the physical security plan, applicable administrative orders, and regulatory requirements. Specific aspects of physical protection examined by the inspector included the following:

- a. Protected area and vital area barriers were verified to be properly closed and locked.
- b. Personnel provided access to the protected and vital areas were properly authorized, identified and badged. Personnel, vehicles, and packages were searched as required by the physical security plan.
- c. Escorts were provided for personnel and vehicles when required inside the protected area.

- d. The security organization for each shift was found to be properly organized and manned.
- e. Shift turnovers, shift routines, and communications were accomplished in accordance with the requirements of the physical security plan and applicable administrative orders.
- f. Weapons qualification training and night familiarization training were conducted and proper records maintained.

No items of noncompliance or deviations were identified.

4. Maintenance

Maintenance operations on the service water pumps, chlorine monitoring and control system, and the fire protection system, were witnessed by the inspector and verified to have been performed in accordance with established procedures and technical specification requirements. During the examination of maintenance activities related to the above components or systems, the inspector made the following observations:

- a. Maintenance requests had been properly prepared to provide the required administrative approval prior to initiating the work.
- b. The maintenance was performed by qualified members of the maintenance organization.
- c. Systems tagging operations and plant status controls properly indicated the performance of the maintenance activities.
- d. Applicable limiting conditions for operation as specified in the technical specifications were met during the above maintenance.

No items of noncompliance or deviations were identified.

5. Organization and Administration

Recent changes in the assignment of personnel to supervisory positions within the facility organizational structure were examined by the inspector. The personnel designated as Acting Supervisors for the positions of Instrument & Control Supervisor, Quality Assurance Supervisor, and Maintenance Supervisor were verified to possess the proper qualifications and experience as prescribed in the facility safety analysis report and technical specifications. Changes in the above positions are not required to be reported to the NRC by the facility technical specification.

No items of noncompliance or deviations were identified.

6. Environmental Protection Operations

Based on discussions with licensee representatives and direct observation of environmental sampling activities, the inspector verified that these activities were conducted in accordance with approved facility procedures and the requirements of the environmental technical specifications. Specific observations made by the inspector included the following:

- a. Five continuous environmental monitors for airborne particulate activity and airborne radioiodine were examined. Each monitor was found to be operable with the proper calibration status indicated.
- b. Airborne samples were obtained in accordance with the requirements of Monitoring Instruction No. 6, Airborne Radioactivity Sampling.
- c. Surface water sampling of the Columbia River in three separate locations was observed and found to be properly conducted in accordance with Monitoring Instruction No. 3, Surface Water Sampling.
- d. Game fish sampling of the Columbia River was observed and found to be properly conducted in accordance with Monitoring Instructions No. 2, Aquatic Animal Sampling.
- e. As applicable, samples were split and provided to the State of Oregon in accordance with the NRC/State of Oregon contract.

No items of noncompliance or deviations were identified.

7. Review and Audit

The inspector attended the onsite review and audit committee meeting held on October 19, 1978. The inspector observed the conduct of the meeting and ascertained that the provisions of the technical specifications dealing with quorum, membership and qualifications were met. Subsequent to the meeting, the inspector reviewed the meeting minutes and found the minutes to be an accurate documentation of the meeting agenda and decisions made by the committee.

No items of noncompliance or deviations were identified.

8. Calibration

The licensee's program for the calibration of plant instrumentation was examined by the inspector. The inspector directly observed the calibration of instrumentation in the fire protection system,

turbine control system, radiation monitoring system, and the seismic monitoring system. Observations made by the inspector included the following:

- a. The calibrations were performed in accordance with approved facility procedures.
- b. The calibrations were performed by properly qualified personnel.
- c. Test equipment used during the calibration of instruments in the above systems was verified to be in a proper calibration status when used.
- d. Records of test equipment calibration showed that the calibration accuracy is traceable to the National Bureau of Standards.
- e. The licensee uses an offsite organization for the calibration of the facilities primary standards. During a recent audit performed by the quality assurance organization, the licensee found that the offsite calibration organization had not been approved as a supplier of the safety-related calibration service as required by the quality assurance program. This noncompliance with quality assurance program requirements has been designated as open loop item No. 617 for correction by the quality assurance organization. The inspector will verify the implementation of the licensee's corrective action during subsequent inspections. This item was discussed during the exit interview (50-344/78-23-01).

No items of noncompliance or deviations were identified by the inspector other than the licensee identified item of noncompliance described above.

9. Licensee Action on Previous Inspection Findings

(Closed) Followup item (50-344/78-20-02): The licensee has revised facility procedure Nos. EI-1, EI-2, and ONI-4 to include a precautionary note that alerts the facility operator to the "unarmed" condition of the safety injection system actuation devices when the reset feature is used.

10. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) on October 13, 23, and 31, 1978. During these meetings, the inspector summarized the scope and findings of the inspection, including those items discussed in Paragraphs 3 and 8.