

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-344/82-23

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: July 6 - August 6, 1982

Inspectors: *PH Johnson* 8/19/82  
for M. H. Malmros, Senior Resident Inspector Date Signed

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Date Signed

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Date Signed

Approved by: *R T Dodds* 8/23/82  
R. T. Dodds, Chief, Reactor Projects Section No. 1 Date Signed  
Reactor Projects Branch

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Date Signed

Summary: Inspection on July 6 - August 6, 1982 (Report 50-344/82-23)

Areas Inspected: Routine inspections of plant shutdown operation, surveillance testing, maintenance, refueling activities, security, and follow-up on Licensee Event Reports and previous inspection findings. The inspection involved 108 inspector-hours by the NRC Senior Resident Inspector.

Results: No items of noncompliance or deviations were identified.

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## DETAILS

### 1. Persons Contacted

- \*C. P. Yundt, General Manager
- C. A. Olmstead, Manager, Operations & Maintenance (Acting)
- R. P. Schmitt, Manager, Technical Services (Acting)
- J. D. Reid, Manager, Plant Services
- D. R. Keuter, Operations Supervisor
- D. W. Swan, Maintenance Supervisor
- A. S. Cohlmeier, Engineering Supervisor (Acting)
- G. L. Rich, Chemistry Supervisor
- T. O. Meek, Radiation Protection Supervisor
- R. E. Susee, Training Supervisor
- D. L. Bennett, Control & Electrical Supervisor
- P. A. Morton, Quality Assurance Supervisor
- R. W. Ritschard, Security Supervisor
- H. E. Rosenbach, Material Control Supervisor
- J. K. Aldersebaes, Manager, Nuclear Maintenance & Construction

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 interviews.

### 2. Operational Safety Verification - Refueling Shutdown

During the inspection period, the inspector observed and examined activities to verify the operational safety of the licensee's facility. The observations and examinations of those activities were conducted on a daily, weekly, or biweekly basis.

On a daily basis, the inspector observed control room activities to verify the licensee's adherence to limiting conditions for operation as prescribed in the facility technical specifications. Logs, instrumentation, recorder traces, and other operation records were examined to obtain information on plant conditions, trends, and compliance with regulations. On the occasions when a shift turnover was in progress, the turnover of information on plant status was observed to determine that all pertinent information was relayed to the oncoming shift.

During each week, the inspector toured the accessible areas of the facility to observe the following items:

- a. General plant and equipment conditions.
- b. Maintenance requests and repairs.
- c. Fire hazards and fire fighting equipment.
- d. Ignition sources and flammable material control.
- e. Conduct of activities in accordance with the licensee's administrative controls and approved procedures.
- f. Interiors of electrical and control panels.
- g. Implementation of the licensee's physical security plan.
- h. Radiation protection controls.
- i. Plant housekeeping and cleanliness.
- j. Radioactive waste systems.

The licensee's equipment clearance control was examined weekly by the inspector to determine that the licensee complied with technical specification limiting conditions for operation, with respect to removal of equipment from service. Verification was achieved by selecting one safety-related system or component weekly and verifying proper breaker, switch, and valve positions, both for removing the system or component from service and returning it to service.

During each week, the inspector conversed with operators in the control room, and other plant personnel. The discussions centered on pertinent topics relating to general plant conditions, procedures, security, training, and other topics aligned with the work activities involved. Three groups were the subject of observation during shift turnover - the control room operators, the refueling crew, and security personnel.

The inspector examined the licensee's nonconformance reports to confirm that deficiencies were identified and tracked by the system. Identified nonconformances were being tracked and followed to the completion of corrective action.

Logs of jumpers, bypasses, caution, and test tags were examined by the inspector. No jumpers or bypasses appeared to have been improperly installed or removed or to have conflicted with the technical specifications. Implementation of radiation protection controls was verified by observing portions of area surveys being performed, and by examining radiation work permits currently in effect to see that prescribed clothing and instrumentation were available and used. Radiation protection instruments were also examined to verify operability and calibration status.

Major evolutions completed during July, 1982, as part of the 1982 refueling outage included the completion of refueling (see Section 7) and resolution of the thermal sleeve problem described in LER 82-11 (see Section 5). The remaining refueling work, reassembly of the reactor and startup testing are scheduled for completion during August, 1982.

No items of noncompliance or deviations were identified.

3. Maintenance

Maintenance activities involving preventive and corrective maintenance were observed by the inspector during the inspection period. Observations by the inspector verified that proper approvals, system clearances and tests of redundant equipment were performed, as appropriate, prior to maintenance of safety-related systems or components. The inspector verified that qualified personnel performed the maintenance using appropriate maintenance procedures. Replacement parts were examined to determine the proper certification of materials, workmanship and tests. During the actual performance of the maintenance activity, the inspector checked for proper radiological controls and house-keeping, as appropriate. Upon completion of the maintenance activity, the inspector verified that the component or system was properly tested prior to returning the system or component to service. During the inspection period, maintenance activities observed were associated with portable radiation survey instruments, plant instrumentation, and the reactor coolant system.

No items of noncompliance or deviations were identified.

4. Surveillance

The surveillance testing of safety-related systems was witnessed by the inspector. Observations by the inspector included verification that proper procedures were used, test instrumentation was calibrated and that the system or component being tested was properly removed from service if required by the test procedure. Following completion of the surveillance tests, the inspector verified that the test results met the acceptance criteria of the technical specifications and were reviewed by cognizant licensee personnel. The inspector also verified that corrective action was initiated, if required, to determine the cause for any unacceptable test results and to restore the system or component to an operable status consistent with the technical specification requirements.

Surveillance tests witnessed during the inspection period were associated with the refueling interval calibration of installed plant instrumentation that provides an input to the solid state protection system.

No items of noncompliance or deviations were identified.

5. Licensee Event Report (LER) Follow-up

The circumstances and corrective action described in LER Nos. 81-13, 82-07, 82-09, 82-10 and 82-11 were examined by the inspector. The inspector found that each report had been reviewed by the licensee and reported to the NRC within the proper reporting interval. The corrective actions for each event were as follows:

LER 81-13 (Closed): The licensee completed revisions for facility procedures, POT-1-1 and OI-3-3 which require that reactor coolant system vent and drain valves be torqued shut with a torque value of 120-foot-pounds. The valves are not to be operated with system pressure greater than 200 psig.

LER 82-07 (Closed): The licensee submitted a revised containment pressure analysis which bounds the normal operating pressure of the containment to less than 2.0 psig. This value is consistent with the previous FSAR results and the facility technical specifications.

LER 82-09 (Open): The "B" hold up tank has been repaired and pressure tested satisfactorily. This item will remain open pending the completion and installation of Facility Design Change, RDC No. 82-040, which improves the cover gas control system and tank pressure indication for each of the three hold up tanks.

LER 82-10 (Open): The licensee has provided appropriate precautionary measures to assure that operators are aware of the significance of certain valve lineups which have an effect on the level of the spent fuel pool. This work involved installing eight caution tags and revisions to OI-4-4, Section III, V and VI. Facility Design Change, RDC 82-009, has been submitted by the plant staff and is undergoing an engineering review to provide a modification for an improved spent fuel pool level indicating switch. A completion date has not been assigned for RDC 81-009. This item will remain open pending completion of the above corrective action.

LER 82-11 (Closed): The licensee reported a degradation of the reactor coolant thermal sleeves. Four thermal sleeves (SI injection nozzles) had broken loose and were recovered from the lower portion of the reactor vessel during the current refueling outage. The thermal sleeve at the loop connection with the surge line has been removed. The operation of the facility without the above thermal sleeves has been described in appropriate safety analysis performed pursuant to the provisions of 10 CFR 50.59. The safety evaluation was submitted to NRR for their review. The conclusion made in the safety evaluation is that operation of the facility without the thermal sleeves will have no effect on the health and safety of the public.

No items of noncompliance or deviations were identified.

6. Follow-up on Previous Inspection Findings

81-15-01(Closed): The licensee installed a water-tight valve operator on MOV 4005. The water-tight motor (supplied by Rotork) will assure that proper operation of MOV 4005 (Reactor Coolant Drain Tank - Containment Isolation Valve) under possible flood conditions due to the valves location near the containment sump.

82-18-01 (Closed): The licensee installed Facility Design Change, RDC 82-036, which prevents the loss of vital bus Y-22 from causing an inadvertent actuation of the steam dump system during facility operation. The design change was installed and satisfactorily tested during the 1982 refueling outage.

82-18-02 (Closed): As part of the installation of Facility Design Change, RDC 80-092, the mounting of the seismic accelerometer (No. SR- 6340) on a raised concrete slab will preclude the moisture problems associated with past operation. This work was completed during July, 1982.

No items of noncompliance or deviations were identified.

7. Refueling Activities

The inspector observed the refueling activities associated with the reload of the Cycle V core. The fuel loading commenced on July 26, and was completed on August 1, 1982. The inspector observed fuel handling evolutions at all key locations for both the day shift and night shift refueling crews. The fuel was moved in accordance with approved facility procedures. All fuel handling evolutions were under the control of a licensed SRO on the refueling operations level of the containment. Communications were continuously maintained between each of the refueling stations. The inspector verified that appropriate containment integrity requirements were met during fuel handling evolutions.

No items of noncompliance or deviations were identified.

8. Exit Interview

The inspector met with the licensee representative (denoted in Paragraph 1) on July 23 and August 6, 1982. During these meetings the inspector summarized the scope and findings of the inspection.