

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-344/82-27

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: September 13 - October 1, 1982

Inspectors: *Dennis J. Willett For*
M. H. Malmros, Senior Resident Inspector

10-15-82
Date Signed

Date Signed

Date Signed

Approved by: *R T Dodds*
R. T. Dodds, Chief, Reactor Projects
Section 1, Reactor Projects Branch No. 1

10/14/82
Date Signed

Date Signed

Summary:

Inspection on September 13 - October 1, 1982 (Report No. 50-344/82-27)

Areas Inspected: Routine inspection of plant operations, surveillance testing, maintenance, security, and follow-up on Licensee Event Reports and TMI Action Plan items. The inspection involved 69 inspector-hours by the NRC Senior Resident Inspector.

Results: No items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

- *C. P. Yundt, General Manager
- *C. A. Olmstead, Manager, Operations and Maintenance (Acting)
- R. P. Schmitt, Manager, Technical Services (Acting)
- J. D. Reid, Manager, Plant Services
- D. R. Keuter, Operations Supervisor
- D. A. 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 and Electrical Supervisor
- P. A. Morton, Quality Assurance Supervisor
- R. W. Ritschard, Security Supervisor
- H. E. Kosenbach, Material Control Supervisor
- J. K. Aldersebaes, Manager, Nuclear Maintenance and 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

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 operations 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. Shift turnover by licensed personnel was observed by the inspector.

The inspector examined the licensee's nonconformance reports to confirm that the 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.

Each week the inspector verified the operability of a selected engineered safety features (ESF) train. This was done by direct visual verification of the correct position of valves, availability of power, cooling water supply, system integrity, and general condition of the equipment. ESF trains verified to be operable during the inspection period included the auxiliary feedwater system and the containment spray system.

On September 8, 14 and 17 the facility experienced reactor trips due to feedwater system upsets resulting from a loss of a main feedwater pump. In two of the trips the loss of the main feedwater pump was attributed to a faulty thrust bearing wear indicator. The remaining trip was caused by an electrical system perturbation which caused an upset in the electric generator speed control system. During each of these trips, the plant systems responded normally with no problems identified which prevented a prompt recovery to full power in each case.

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 housekeeping, 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 the service water pump, steam system piping, and main feedwater pump controls.

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 reactor core, steam pressure instrumentation and the reactor coolant system chemistry.

No items of noncompliance or deviations were identified.

5. Licensee Event Report (LER) Follow-up

The circumstances and corrective action described in LER Nos. 82-13 and 82-14 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 82-13 (Closed): The report identified four type C penetration valves that had leaked in excess of allowable limits during the local leak rate tests conducted during the recently completed refueling outage. The reason for each valve's excess leakage was identified and corrected. Retests of each valve were satisfactory. Analyses of the valve failures by the licensee's organization did not reveal any chronic trends or failure mechanisms which would be of generic concern within the facility.

LER 82-14 (Closed): The licensee has reviewed the occurrence with all crew operators to stress the importance of procedural compliance. Procedures for the periodic test of safety-related valves (POT-2-3) has been revised to include the steps of placing a pump control switch in the "pull to lock" position with appropriate double verifications upon completion of the testing of the respective pumps suction isolation valves.

One item of noncompliance was identified by the licensee as described in LER 82-14. No deviations were identified.

6. Leak Rate Testing - Type B&C Tests

During the recently completed refueling outage, the inspector witnessed several tests of Type B&C containment penetrations. The inspector found that each local leak rate test was conducted in accordance with approved facility procedure (PET-5-2) by qualified personnel using properly calibrated instrumentation. The results of the tests were examined by the inspector. Deficiencies identified during the tests were corrected and retested satisfactorily. Leakage in excess of limits was properly reported to the NRC in Licensee Event Report 82-13.

No items of noncompliance or deviations were identified.

7. TMI Action Plan Follow-up

The inspector verified the licensee's actions taken in response to the following NUREG 0737 items and as documented in correspondence between the licensee and the NRC.

Item II.B.1. Reactor Coolant System Vents (Closed): The licensee has installed redundant reactor coolant system vent valves and has provided appropriate operating procedures. (Reference licensee's design change, No. RDC 79-087 and Functional Restoration Procedure 1.3)

Item II.F.1/6 Containment Hydrogen Monitor (Closed): The licensee has installed a redundant containment hydrogen monitoring system and has provided appropriate operating procedures. (Reference licensee's design change, No. RDC-81-053 and Operating Instruction OI-11-9)

No items of noncompliance or deviations were identified.

8. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) on September 17 and October 4, 1982. During these meetings the inspector summarized the scope and findings of the inspection.