

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

REGION V

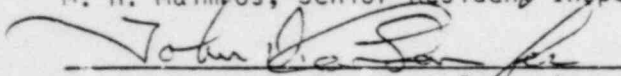
Report No. 50-344/81-15
Docket No. 50-344 License No. NPF-1 Safeguards Group _____
Licensee: Portland General Electric Company
121 S. W. Salmon Street
Portland, Oregon 97204

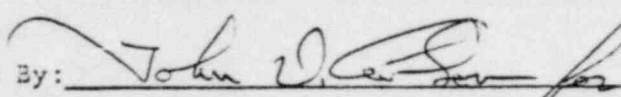
Facility Name: Trojan

Inspection at: Rainier, Oregon

Inspection Conducted: May 1-29, 1981

Inspectors:  6/9/81
M. H. Malmros, Senior Resident Inspector Date Signed

 6/9/81
G. W. Johnston, Resident Inspector Date Signed

Approved By:  6/9/81
D. M. Sternberg, Chief, Reactor Projects Date Signed
Section 1, Reactor Operations Projects Branch

Summary: Inspection on May 1-29, 1981 (Report No. 50-344/81-15)

Areas Inspected: Routine inspections of plant operation, surveillance testing, security activities; maintenance, follow-up on Licensee Event Reports, Previous Inspection Findings, and TMI Action Plan Requirements. The inspection involved 174 inspector-hours by the NRC Resident Inspectors.

Results: No items of noncompliance or deviations were identified.

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DETAILS

1. Persons Contacted

- *C. P. Yundt, General Manager
- *R. P. Barkhurst, Manager, Operations & Maintenance
- C. A. Olmstead, Manager, Technical Services
- J. D. Reid, Manager, Plant Services
- D. R. Keuter, Operations Supervisor
- D. W. Swan, Maintenance Supervisor
- R. P. Schmitt, Engineering Supervisor
- G. L. Rich, Chemistry Supervisor
- T. O. Meek, Radiation Protection Supervisor
- R. E. Susee, Training Supervisor
- D. L. Bennett, Control & Electrical Supervisor
- H. R. Sager, Quality Assurance Supervisor
- T. F. Bracy, 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

During the month, the inspectors 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 monthly basis.

On a daily basis, the inspectors 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 inspectors 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 as per 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 inspectors toured the areas in the Control Building that are affected by construction modifications. The tours were conducted to determine that construction noise was not interfering with normal communications, and that excessive dust, dirt, or debris would not affect operations of essential electrical equipment.

Each week, the inspectors verified the operability of a selected emergency 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 month included service water, component cooling water, and spent fuel pool cooling.

The licensee's equipment clearance control was examined weekly by the inspectors 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 components from service and returning it to service.

During each week, the inspectors 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. Two groups were the subject of observation during shift turnover - the control room operators and security personnel at the main gate.

The inspectors examined the licensee's nonconformance reports to confirm 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 inspectors. 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.

On May 11, 1981, a Westinghouse Electric Corporation Refueling Technician was injured when a reactor vessel stud tensioner fell to the reactor cavity floor. The tensioner was being lifted from the reactor vessel bolting flange to the cavity floor using the stud removal hoist. The stud removal hoist is not designed for lifting the stud tensioners and consequently failed when the tensioner was lifted. The injured person suffered leg bruises and returned to work within two days. The normal methods for removing the stud tensioners from the reactor vessel bolting flange is to use either the stud tensioner hoist or the auxiliary hook on the polar crane. Corrective action to be taken by the licensee to preclude recurrence includes the following: (1) adding a precaution to the refueling procedure identifying the limitations of the head hoists, and (2) placing a warning label on the reactor vessel stud hoist control button which indicates that the hoist is not to be used for lifting stud tensioners.

3. Maintenance

Maintenance activities involving preventive and corrective maintenance were observed by the inspectors during the month. Included this month were activities that occur during refueling outages. Observations by the inspectors 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 inspectors 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 inspectors checked for proper radiological controls and housekeeping, as appropriate. Upon completion of the maintenance activity, the inspectors verified that the component or system was properly tested prior to returning the system or component to service. During the month, maintenance activities associated with the diesel generators, main steam isolation valves, explosive detectors, and the auxiliary feedwater flow control valves.

The inspectors examined the repairs made to the B & C steam generators to correct a primary to secondary leakage condition of approximately 100 gallons per day. System leak tests were performed and identified two definite leaking tubes in the C steam generator. Several other tubes (approximately 25) showed signs of moisture accumulation which was indicative of an extremely minor defect. All defects were located in first row

tubes. The licensee mechanically plugged all first row tubes in the B & C steam generators with the exception of 4 tubes in the B steam generator. These 4 tubes were explosively plugged because the divider plate weld interfered with the mechanical plug tool preventing a true vertical insertion of the mechanical plug.

No items of noncompliance or deviations were identified.

4. Surveillance

The surveillance testing of safety-related systems was witnessed by the inspectors. Observations by the inspectors 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 inspectors verified that the test results met the acceptance criteria of the technical specifications and were reviewed by cognizant licensee personnel. The inspectors 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.

In examining the data records for the tendon surveillance, the inspector identified a vertical tendon (V-125) that apparently had a deficit of packing grease. Further discussion with licensee personnel and examination of records revealed that an additional 72 gallons of grease had to be injected to make up the deficit. This particular tendon did have a wire strand removed and examined. The strand showed no evidence of corrosion, and the tensile test conducted evidenced no degradation. Surveillance tests witnessed during the month were associated with the following systems: emergency safety features actuation system time response, containment tendons, pressurizer code safety valves, seismic recording system, passive seismic recording units, and calibration of diesel generator water jacket temperature switches.

No items of noncompliance or deviations were identified.

5. Licensee Event Report (LER) Followup

The circumstances and corrective action described in LER Nos. 81-08, and 81-09 were examined by the inspectors. The inspectors found that each LER had been reviewed by the licensee and reported to the NRC within the proper reporting interval. Corrective action for each event reported was as follows: LER 81-08 (Closed): The engineering evaluation to determine the long term corrective action for assuring the operability of MOV-4005 has been completed. Two recommendations were made as follows: (1) Replace the existing valve operator with an operator that is waterproof, thus not

subject to failure due to moisture/water conditions in the recirculation sump or (2) relocate the valve to a raised position above the sump, thus keeping the operator out of a possible moisture/water environment. The licensee has located a supplier of a qualified valve operator which is consistent with recommendation (1), above. The licensee anticipates an approximate twenty-week lead time to procure and install the new valve operator. (81-15-01)

LER 81-09 (Closed): The licensee has determined that alternative multimeters that are available will not wholly preclude a similar occurrence. All the electricians have been instructed to check the position of the meter leads in the jacks of the multimeters. The licensee also intends to provide plugs for the milliampere jacks to those who want them.

No items of noncompliance or deviations were identified.

6. Licensee Action on Previous Inspection Findings

(Closed) Noncompliance (81-05-01): The licensee's corrective action as described in their letter of April 24, 1981, to the items of noncompliance related to the failure to follow procedures was verified by the inspectors. A training session for plant engineering personnel in the preparation of system pressure tests was held on April 30, 1981. In a similar manner, the need to follow procedures was discussed by the Operations Supervisor with the Shift Supervisors and Assistant Shift Supervisors during the supervisory training class. A memorandum, dated April 15, 1981, which stressed the importance of following procedures and summarized several incidents in the plant that resulted from a failure to follow procedures was reviewed by all operators.

No items of noncompliance or deviations were identified.

7. Followup on TMI Commitments

Based on discussions with licensee representatives and the examination of facility equipment and records, the inspectors verified the implementation of the following TMI Action Plan requirement was as described in correspondence between the licensee and the NRC. The item is identified by the item number as assigned in NUREG-0737.

I.C.6 Verification of Operating Activities (Closed)

The inspectors verified the implementation of revisions to the following procedures which provide for the verification of operating activities as prescribed in NUREG 0737. The essential elements of the procedure revisions were described in IE Inspection Report No. 50-344/81-05.

- (a) Administrative Order (AO) No. AO-3-13; Locked Valve Test (Rev. 15)
- (b) Administrative Order (AO) No. AO-3-14; Safety-Related Equipment Outages (Rev. 4)

- (c) Administrative Order (AO) No. AO-6-2; Bypass of Safety Functions (Rev. 9)
- (d) Plant Safety (PS) Procedure No. PS-3-30; Trojan Holdout and Tagging Procedure (Rev. 6)

No items of noncompliance or deviations were identified.

8. Security Activities

The inspectors attended a training lecture given to security officers as part of their requalification training program. The lecture topic addressed criminal law and the material presented by the lecture met the lesson plan objectives. An examination of the training lecture schedule indicates that lecture schedule is being met.

The inspectors examined records of security officer weapons qualifications and physical fitness testing. Records examined indicate that acceptable scores are being attained by the security officers. Records also indicate that appropriate retesting is required when unacceptable scores are achieved by the security officers during the initial requalification tests.

No items of noncompliance or deviations were identified.

9. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) on May 18 and June 1, 1981. During these meetings, the Senior Resident Inspector summarized the scope and findings of the inspection.