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

REGION V

Report No. 50-344/81-18	
Docket No. 50-344 License No. NPF-1	Safeguard Group
Licensee: Portland General Electric Company	
121 S. W. Salmon Street	
Portland, Oregon 97204	
Facility Name: Trojan	
Inspection at: Rainier, Oregon	
Inspection conducted: Jave 1-30, 1981 Inspectors: Spring Posident Inspector	7/19/8/ Date Signed
M. H. Malmros, Senior Resident Inspector G. W. Johnston, Resident Inspector	7/19/81 Date Signed
Approved by: D. M. Sternberg, Chief, Reactor Project Section 1, Reactor Operations and Nuclear Support Branch	7/19/81 Date Signed

Summary: Inspection on June 1-30, 1981 (Report No. 50-344/81-18)

Areas Inspected: Routine inspections of plant operation, surveillance testing, maintenance, modifications, local leak rate testing, and follow-up on a Licensee Event Report. The inspection involved 153 inspectorhours by the NRC Resident Inspectors.

Results: Two apparent items of noncompliance were identified. Both related to the performance of modification activities (Severity level IV - Paragraph 7 of Details). No deviations were identified.

DETAILS

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

M. A. Bell, Chemistry Supervisor

T. U. Meek, Radiation Protection Supervisor

R. E. Susee, Training Supervisor

D. L. Bennett, Control & Electrical Supervisor

M. R. Snook, Quality Assurance Supervisor (Acting)

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 operational 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.

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.

No items of noncompliance or deviations were identified.

3. Containment Leak Rate Testing - Type B & C Tests

During the refueling outage, local leak rate testing of type "B" and "C" containment penetrations was performed by the licensee. The inspectors witnessed several tests performed by properly qualified personnel in accordance with PET-5-2, "Containment Local Leak Rate Testing." Valves which failed the leakage test were repaired and retested. Approximately seven valves displayed leakage greater than the acceptance criteria contained in PET-5-2. The test failures will be reported to the NRC by the licensee in a thirty-day Licensee Event Report (LER) and will describe the corrective action taken to keep the total leakage rate of all type B and C tests within the value permitted by Federal Regulations.

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.

Surveillance tests witnessed during the month were associated with the following systems: containment pressure channels, containment spray flow verification, plant effluent radiation monitors, cold rod drop times, feedwater flow meters, Safety Injection System, steam pressure channel, battery discharge tests, emergency power system, and Rod Control System.

No items of noncompliance or deviations were identified.

5. 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, incore flux mapping system, and service air system.

No items of noncompliance or deviations were identified.

6. Licensee Event Report (LER) Followup

The circumstances and corrective action described in LER 81-10 were examined by the inspector. The inspector found that the LER had been reviewed by the licensee and reported to the NRC within the proper reporting interval. The security personnel assigned to the containment air lock door post were instructed in the requirements for air lock door operation and closure. The specific requirements for air lock operation were also posted at the air lock door. This item is considered closed.

No items of noncompliance or deviations were identified other than the failure to maintain both doors of the air lock closed as described in the subject LER.

7. Modifications

During the 1981 Refueling Outage, several facility modifications were made by the licensee. The inspectors selected several safety-related modifications and, based on direct observations, discussions with facility personnel and an examination of facility records, verified that the modifications were made consistent with regulatory requirements. The inspection included verification that applicable safety reviews were completed and that test results from the completed modifications were within the design acceptance criteria. Additionally, the inspectors observed the actual modification work in progress to verify that work plans and procedures were being used by properly trained and qualified personnel. The modifications examined by the inspectors included the following:

RDC No. 80-061 - Electric AFW Pump Piping Relocation

RDC No. 80-005 - Degraded Bus Voltage Protection

RDC No. 79-061 - Feedwater Isolation Valve Hydraulic System

RDC No. 80-003 - Electrical Independence of Steam Driven AFW Pump

RDC No. 79-099 - AFW Flow Instrumentation

RDC No. 80-111 - Reactor Vessel Level Indication System

RDC No. 79-087 - Reactor Head Vent System

During the examination of work associated with RDC No. 80-111, the inspectors made the following findings regarding the freeze seal work procedure and the training/qualification of personnel performing the modification work. On June 4, 1981, a freeze seal being used on an unisolatable section of the "C" loop RTD bypass line failed. The freeze seal was being used to install a "T" fitting required for the installation of the Reactor Vessel Level Indication System. The work plan for DCP-3 of RDC-80-111 specified that a maintenance sub-tier procedure was to be used for performing a freeze seal on the "C" and "D" RTD bypass lines. No written procedure existed at that time for

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freeze seals. The work was conducted using a handwritten procedure drafted for this occasion. This procedure had not undergone review by the Plant Review Board (PRB) and approval of the General Manager as required by Technical Specification 6.8. Quality Assurance Procedure No. 9, "Control of Special Processes," requires that personnel performing a special process are to be adequately trained, tested, and qualified, as necessary, prior to performing special process activities. The personnel involved in the application of the freeze seal in question were not instructed in the use of a freeze seal. Consequently, the condition of the seal was not monitored properly to insure the integrity of the seal. This was evidenced by the placement of the thermocouples near the nitrogen flow in the freeze cups. The proximity to the flow of nitrogen in this instance would not provide an accurate indication of temperature in the freeze cup.

Two items of noncompliance were identified, one involving the use of an unapproved procedure and another involving personnel not properly trained to perform a special process. No deviations were identified. (81-18-01 & 02)

8. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) on June 15 and July 6, 1981. During these meetings, the Senior Resident Inspector summarized the scope and findings of the inspection. The inspector acknowledged the efforts of the licensee's Quality Assurance Organization and Nuclear Maintenance and Construction Organization in evaluating the circumstances surrounding the freeze seal activities which resulted in the items of non-compliance discussed in Paragraph 7.