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

REGION V

Report No. 50-344/79-02

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: January 17-19, 1979

Inspectors: P. H. Johnson, Reactor Inspector — 1/31/79 Date Signed

A. J. Horn, Reactor Inspector — 1/31/79 Date Signed

Approved By: D. M. Sternberg, Chief, Reactor Project Section 1, Reactor Operations and Nuclear Support Branch — 1/31/79 Date Signed

Summary:

Inspection on January 17-19, 1979 (Report No. 50-344/79-02)

Areas Inspected: Routine, unannounced inspection of licensee event reports, response to IE Bulletins and Circulars, surveillance of pipe support and restraint systems, and post-refueling startup testing and operations; also included independent inspection effort. The inspection involved 37 inspector-hours onsite by two NRC inspectors.

Results: No deviations or items of noncompliance were identified.

DETAILS

1. Persons Contacted

*F. Lamoureaux, Assistant Plant Superintendent
R. Barkhurst, Operations Supervisor
*W. Orser, Engineering Supervisor
*A. Olmstead, Maintenance Supervisor
*J. Perry, Administrative Engineer
*J. Reid, QA Supervisor
*R. Schmitt, Chief Nuclear Plant Engineer
*T. Walt, Radiation Protection Supervisor

*H. Haynie, Inspector, Oregon Department of Energy

The inspectors also interviewed other licensee employees during the course of the inspection. These included reactor operators, shift supervisors, maintenance personnel, and plant staff engineers.

*Denotes those attending the exit interview.

2. Startup Testing - Refueling

The inspector examined three startup tests (in addition to those discussed in Inspection Report No. 50-344/78-28), which were conducted during the initial startup and power ascension following the refueling outage. Each test was found to have been conducted using approved procedures and to have given expected results. Tests examined and related results were:

a. Determination of Reactor Shutdown Margin - measured shutdown margin was consistent with predicted values and technical specifications requirements. The inspector verified that periodic verifications of shutdown margin were being performed as required by Technical Specifications.

b. Target Axial Flux Difference - core axial average offset was measured at +3.67% based on an incore mapping performed on 1/9/79, compared to +4.0% predicted for Core 2. The inspector noted that the correct axial offset curve was displayed on the control panel and that reactor operators were maintaining a record of core axial offset (this function was not operable on the process computer).

c. Core Thermal Power Evaluation - the inspector examined several heat balance calculations performed at or near full power, and independently verified calculations for a heat balance performed at 100% power at 2015 on January 5, 1979.

The various startup tests performed by the licensee showed the core to be performing essentially as predicated.

No deviations or items of noncompliance were identified.

3. Reportable Occurrences

The inspectors reviewed the action taken by the licensee in response to LER 78-27, related to unqualified electrical splices in the containment. The unqualified splices were found by the licensee during an inspection made in response to IE Circular No. 78-08. Discussions with the cognizant engineer and examination of the related work request and procedure confirmed that the unqualified splices were replaced using proper connectors and Raychem heat-shrink tubing insulation. Documents provided by Raychem stated that this insulating method had been tested for in-containment conditions.

No deviations or items of noncompliance were identified.

4. Review of Plant Operations - Post-Refueling

The inspectors reviewed facility records of selected surveillance tests performed during the outage. The following tests were found to have been performed as required by the Technical Specifications:

a. Charging pump operability - monthly

b. Diesel generator operability - monthly

c. Availability of offsite power - weekly

d. Diesel fire pump operability - monthly

e. Boron injection flow path - weekly

No deviations or items of noncompliance were identified.

5. Surveillance of Pipe Support and Restraint Systems

The licensee's program for inspection of hydraulic snubbers was reviewed by the inspector, including the results of the last inspection made by the licensee. The procedure used for hydraulic snubber inspections was consistent with Technical Specifications requirements and results of the last inspection satisfied the requirements of the procedure. The inspector noted that the licensee has replaced most of the hydraulic snubbers with mechanical snubbers. The new snubbers were inspected by the licensee prior to and after installation. A procedure for periodic surveillance of the mechanical snubbers will be issued by the licensee when required.

No deviations or items of noncompliance were identified.

6. IE Bulletin/Circular Followup

The inspectors followed up on licensee actions related to recent IE Bulletins and Circulars. The Bulletins and Circulars had been forwarded to and reviewed by cognizant members of the licensee's organization. Inspection findings relating to the bulletins and circulars reviewed during the inspection are as follows:

IE Bulletin 78-06, Defective Cutler-Hammer, Type M Relays with DC Coils (closed): Discussion with a licensee representative and review of records confirmed that ten relays in the diesel-generator control circuitry had been replaced as stated in the licensee's response (PGE letter dated July 5, 1978).

IE Circular 78-16, Limitorque Valve Actuators (closed): An internal memorandum documented the licensee's review of this Circular. The licensee's inspection of the "most used" valve of this type revealed no unusual wear. The licensee has very low manual use of this type valve. The memorandum also stated that a periodic inspection of this type valve should be implemented. A licensee representative stated that the periodic inspection will be initiated.

IE Circular 78-18, UL Fire Test (closed): Discussions with the licensee confirmed their review of this Circular. The licensee will consider the effects of this Circular in connection with the upgrading of the fire protection system, which is in progress.

No deviations or items of noncompliance were identified.

7. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on January 19, 1979. During the exit interview, the inspectors summarized the scope and findings of the inspection as discussed in Paragraphs 2 through 6.