

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

REGION V

Report No. 50-344/80-13
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: Portland, Oregon and San Francisco, California (Bechtel)

Inspection conducted: June 10-11, 1980

Inspectors: P. J. Morrill 7 July 1980
P. J. Morrill, Reactor Inspector Date Signed

Date Signed

Approved By: D. M. Sternberg 7 July 80
D. M. Sternberg, Chief, Reactor Project Section 1 Date Signed
Reactor Operations and Nuclear Support Branch

Summary:

Inspection on June 10-11, 1980 (Report No. 50-344/80-13)

Areas Inspected: Special announced inspection of the circumstances surrounding and corrective actions taken by the licensee as a consequence of Licensee Event Report (LER) 80-07 and selected corrective actions taken by the licensee as a consequence of recent findings related to LER 79-15. The inspection involved 24 inspector-hours by one NRC inspector.

Results: No items of noncompliance or deviations were identified.

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DETAILS

1. Persons Contacted

Portland General Electric Company

C. Yundt, Plant General Manager
J. Alderschas, Trojan Resident Engineer
*D. Broehl, Assistant Vice President, Engineering-Construction
*T. Bushnell, Supervising Civil Engineer
*L. Erickson, Trojan Licensing Supervisor
M. Gandert, Civil Engineer-Generation Engineering
J. Mikelich, Civil Engineer-Generation Engineering
R. Wehage, Mechanical Engineer-Generation Engineering
J. Reid, Plant, QA Supervisor

The inspectors also interviewed and talked with other licensee and licensee contractor employees during the course of the inspection. These included engineers and construction personnel.

*Denotes those attending the exit interview.

2. Inspection Background

On April 16, 1980 Portland General Electric (PGE) personnel reported to IE Region V that tests of collar joint shear strength of double wythe masonry walls indicated that for heavy weight blocks the as-found shear strength was less than that accepted by the NRC staff. Subsequently, on April 17, 1980, IE:V issued an immediate action letter to PGE in order to confirm that the plant would not resume power operation prior to resolution of this problem with the NRC staff.

On May 16, 1980 PGE personnel reported to IE:V the discovery of a wall in the Trojan Plant Auxilliary Building which was not adequately connected at its top to the floor above. This discovery was further documented by a letter dated May 19, 1980 and by Licensee Event Report (LER) 80-07 dated May 30, 1980.

After review of the licensees reports IE:V decided to conduct an inspection of the scope circumstances, and corrective actions associated with the low collar joint shear strength of heavy weight double wythe block walls as well as the discontinuous wall reported in PGE LER 80-07.

3. Inspection

The inspector examined the licensees' programs utilized to determine the specific walls affected by the subject problems in order to verify completeness and adequacy of review. This examination included, discussions with engineering personnel at the site and in the corporate offices, a tour of the facility, observation of the problems identified, and an examination of working and final documentation used by the licensee to keep track of the status of the walls.

The inspector also examined the licensee's programs to repair the deficient walls to verify adequacy of quality assurance controls, design review, and method of repair. This examination included discussions with quality assurance, engineering, and construction personnel, as well as an examination of maintenance requests and work plans, and observation of work in progress.

The following documentation was examined by the inspector:

PGE Trojan Plant LER 80-07 dated May 30, 1980

NRC Immediate Action Letter to PGE Dated April 17, 1980

PGE Supplement 4 to LER 79-15 dated June 10, 1980

PGE Supplement 3 to LER 79-15 dated May 10, 1980

NRC Summary of Meeting held on May 1-2, 1980 to discuss Resolution of Trojan "Wall Problem".

PGE Non-conformance Report 80-16 "Masonry Wall Structural Connection Details" dated June 9, 1980.

PGE "Summary of Heavy Weight Double Wythe Masonry Walls Not Meeting LER 79-15, Supplement No. 3, Evaluation Criteria" dated June 11, 1980.

PGE Request for Design Changes (RDC): 80-035 (Design Change Package, (DCP) 1), Revision 1.
"55 Column Line Wall", (DCP 2), Revision 0. "CVCS Wall, (DCP 3), Revision 0. "SFPHX Room Wall"

PGE Work Plans correlating to above RDC and DCPs. G/C 417 Revision 0, 55 Column Line Wall and G/C 418 Revision 0, CVCS wall.

PGE Maintenance Requests:

MR 80-2092 "Modification of Masonry Walls".

MR 80-2126 and 2143 "West Wall CVCS Monitor Tank Room".

MR 80-2256, Repair 19 Construction Deficiencies.

Associated Bechtel/PGE Trojan Plant Civil and Architectural Drawings.

Based on the above inspections and examinations the inspector determined the following:

- 1) Twenty-two heavyweight double wythe block walls were being evaluated by the licensee to determine if and how the walls should be strengthened. Two of these walls had been repaired (CVCS monitor tank room west wall and SFPHX shielding wall), and measures were actively underway to fix a third wall.

- 2) The deficient wall reported in LER 80-07 had been repaired. The licensee had discovered a total of 25 additional deficiencies of the type reported in LER 80-07, but none as significant. Of the 25 deficiencies, 19 appeared minor to the licensee and were being repaired while 6 were under evaluation by the licensee to determine if they were significant and what (if any) repairs were necessary. These six deficiencies included lack of encasement of beams, girders, or dowls, and/or bent or damaged dowls.

During discussions with the inspector licensee representatives stated that the apparent cause of the discrepancy described in LER 80-07 was a lack of specific detail in the original design drawings combined with an inaccessible location which precluded discovery prior to detailed visual examination of walls and their connections with an inspection mirror.

Licensee representatives stated that any other significant construction deficiencies discovered as a consequence of LER 80-07 would be reported as a supplement to LER 80-07. Similarly, the heavyweight block wall problem was reported in Supplement Number 4 to LER 79-15.

The inspector also participated in a meeting with licensee, licensee architect-engineer (Bechtel), and NRC staff personnel in the San Francisco offices of Bechtel on June 25, 1980 to confirm the information previously obtained, to assist staff personnel, and to represent Region V in establishing wall screening parameters to be used in evaluating the readiness of the plant to resume power operation.

No items of noncompliance or deficiencies were identified.

4. Exit Interview

The inspector met with licensee personnel on June 11, 1980 in the PGE corporate offices to review the scope and findings of the inspection.