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

REGION V

Report No. 50-344/81-13

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: Rainier, Oregon

Inspection conducted: May 18-22, 1981

Irspectors: PPNarbut 6/12/81
P. P. Narbut, Reactor Inspector Date Signed

A. D'Angelo 6/15/81
A. D'Angelo, Reactor Inspector Date Signed

Approved by: R T Dodds 6/15/81
R. T. Dodds, Chief, Reactor Projects Section 2 Date Signed
Reactor Construction Projects Branch

Summary:

Inspection on May 18-22, 1981 (Report No. 50-344/81-13)

Areas Inspected: Routine unannounced inspection by regional based inspectors of modification activities, inservice inspection, and previously identified followup items. The inspection involved 68 inspector hours on site by two NRC inspectors.

Results: No items of noncompliance or deviations were identified.

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RV Form 219 (2)

DETAILS

1. Individuals Contacted

a. Portland General Electric Company (PGE)

*T. E. Bushnell, Nuclear Project Engineer
*J. D. Reid, Manager Plant Services
G. M. Hutcherson, Construction Coordinator
*K. Johnson, QC Coordinator
M. Gandert
J. Mihelich
J. Aldersebaes, Manager, Nuclear Maintenance and Construction
*J. L. Dunlap, QA Supervisor
*D. L. Glivinski, QA Engineer
*R. P. Schmitt, Engineering Supervisor
*H. R. Sager, QA Supervisor
*C. A. Olmstead, Manager Technical Services
*B. E. Spencer, Resident Engineer
A. O. Wogen, Staff Mechanical Engineer

b. Bechtel Power Corporation

*M. F. Daubenhayer, Field Construction Manager
*W. N. Tony, Project QA Engineer
*P. H. Walker, Quality Control Engineer

c. Northwest Testing Laboratory

J. Stevens, Inspector

d. Westinghouse

G. Tarby, Inservice Inspection Coordinator

e. The Virginia Corporation (TVC)

M. Kemp, NDE Examiner, Level II
D. Foken, NDE Examiner, LEvel II

* Denotes attendance at the exit interview on May 22, 1981 which was also attended by M. H. Malmros, NRC Senior Resident.

2. Licensee Action on Previous Inspection Findings

a. (Closed) Followup Item (50-344/80-22/02)

The item dealt with IE Bulletin 80-08, Examination of Containment Liner Penetration Welds. Several of the weld radiographs were missing from the licensee's files. During this inspection the licensee stated the missing radiographs had been located, as documented on PGE memorandums CBS-35-80M of October 21, 1980 and SRC-2904-80M of November 1, 1980.

This item is considered closed.

b. (Open) Followup Item (50-344/80-28/02)

The licensee had committed to perform formal as-built (as found) inspections in areas excavated for wall modifications by Bechtel and by PGE.

The inspector examined the Bechtel and the PGE as-built inspections separately.

(1) Bechtel Inspections:

The inspector examined the procedures for the as-built inspections. No formal procedures were issued. The inspection requirements were specified on two memorandums; J. F. O'Leary memorandum of November 5, 1980 and P. Chang-lo memorandum of December 12, 1980. The procedure is that the Bechtel site QA engineer sketches the excavated area. The Bechtel Resident Engineer compares the sketch to original drawing requirements and highlights discrepancies. The discrepancies are reported to and evaluated by The Bechtel home office. Upon verbal notification that the home office evaluation was satisfactory the resident signs an entry on the concrete placement sign off sheet.

At the exit interview the inspector discussed the use of memorandums in lieu of procedures and pointed out that memorandums are not usually considered an acceptable method of controlling work but, given the short duration of the remaining work and the fact that the inspections were being carried out, no NRC action was deemed necessary. The inspector further discussed the fact that the resident engineer's signoff on the placement form did not specifically reference the particular 50.59 analysis of the discrepancy or include it in the placement documentation. Licensee management committed to include the 50.59 analyses in the placement documentation packages.

(2) PGE Inspections:

The inspector examined the PGE procedure REI 1-14 Rev. 0 of December 11, 1980 "Verification of As-Found Conditions versus As-Built Drawings of Walls". The procedure requires an inspection by the construction coordinator and a review and generation of a nonconformance report (if required) by the QC coordinator.

The inspector determined, through discussion with involved personnel, that actual practice deviated from the procedure. The inspections were performed but the sketches were forwarded to engineering for evaluation as to whether a nonconforming condition existed. Some of the excavated areas had been covered in a subsequent concrete placement after an informal assessment by engineering. The as-built deficiencies in those walls which had a subsequent concrete placement dealt with discovered voids, therefore the concrete placement corrected the as found deficiency. At the time of inspection, none of the as-built inspection reports had received final dispositioning by engineering. At the exit interview the inspector expressed concern for the potential for covering up an excavation which had not been properly evaluated. Licensee management committed to implement the procedure.

This item remains open pending the fulfillment of the commitments to include 50.59 analyses in the placement documentation packages and to fully implement the PGE as built inspection procedure REI-1-14.

c. (Open) Followup Item (50-344/80-28/03)

This item dealt with voids discovered at the tops of walls during excavation for modification.

The cognizant licensee engineering personnel stated that the exploratory program documented in TPT-9 Revision 1 of November 10, 1980 had been completed. The discovered voiding had been analyzed assuming the presence of the voids, assuming all wall modification excavations had been performed simultaneously (without concrete being replaced) and with the as-built discrepancies included (such as non-continuous reinforcing steel). The results of the analysis were stated to be satisfactory, that the control building was able to sustain an SSE with reduced margins. The licensee representative indicated they did not intend to extend the wall void investigation to the higher elevations of the control building since the margin-to-load ratio was higher at the higher elevations.

At the exit interview licensee management committed to provide a summary report on the wall void investigation and results. Therefore this item will remain open pending the receipt of the summary report.

d. (Closed) Followup Item (50-344/80-30/01)

This item dealt with concrete vibrators which were not required to be calibrated.

The inspector examined the calibration procedure for the vibration tachometers and examined several placement document forms and observed that the quality control inspectors were recording their checks of the concrete vibrators. The inspector observed that no implementing procedure had been issued to require that the vibrators be checked, that the requirement to do so was implemented verbally. Given the short duration of the remaining work no further action was deemed warranted but the lack of a procedure was discussed with licensee management at the exit interview.

e. (Closed) Followup Item (50-344/80-30/02)

This item dealt with the problem that site personnel adding water to concrete did not have sufficient information available to determine if they had exceeded the maximum allowable water.

The inspector interviewed involved personnel and examined the current concrete batch tickets and determined that the entries on the batch tickets now allow site personnel to determine a maximum allowable amount of water which can be added to the concrete.

This item is considered closed.

3. IE Bulletin 79-13 "Cracking in Feedwater System Piping".

The inspector discussed the results of the ultrasonic re-examination of the A steam generator feedwater nozzle to reducer weld. During tne 1980 outage the observed indication had a maximum adjusted depth of 0.123 inch. During the 1981 outage the licensee stated the results of the ultrasonic examination using the same technique was that the apparent adjusted depth of the indication was 0.016 inch greater. The licensee further stated this was within the repeatability of the examination and did not necessarily indicate a growth of the indication. The licensee stated the indication would be reexamined during the next outage. Since the current indication size is well below the critical flaw size of 0.51 inch described in the licensee letter dated October 17, 1980 from Broehl, PGE to R. H. Engelken, this item will be looked at again during a subsequent outage.

4. Installation of Plate Number 6 (Control Building Wall Modifications)

The inspector examined and observed the lifting of plate number 6 into place on the R line wall at elevation 74 feet for conformance to committments. The inspector interviewed two of the rigging personnel and determined that they were journeymen in their trade and had received a written examination on the lift. The lift appeared to be conducted in an orderly manner and the personnel involved appeared knowledgeable.

The inspector examined the rigging equipment used and found it to be in apparent good condition. Involved personnel stated that the lifting equipment had been tested prior to the lift.

The rigging arrangement used was compared to the arrangement shown on drawing ZD-001 Revision 1, and field change request FCR-C-216 of May 13, 1981. It was observed that the rigging used was not the same as shown on the drawing in that the drawing did not show what was to be used on one of the three lifting eyes. The arrangement on the other two lifting eyes was shown in detail on the drawing. The rigging arrangement actually used on the lifting eye, which was not specified on the drawing, was of sufficient capacity to meet the load capacity redundancy requirements. The rigging arrangemert was attached to a lifting eye which had been welded to a structural column. The eye and the welding of the eye were also accomplished by verbal instructions, no procedural or authorizing work request were issued.

The licensee committments for the control building wall modification are quite specific regarding rigging procedure requirements for plates 7 and 8 but are not specific for the other plates. Since the plant was in a condition of defueling the safety significance of the lifting operation was minimal.

At the exit interview licensee management committed to perform the remaining lifts in strict accordance with lifting drawings and procedures and to issue formal changes to those documents if required.

5. Inservice Examination (ISI)

The Inservice Inspection Program specified in the Trojan Nuclear Plant Technical Specifications requires compliance with the ASME Boiler and Pressure Vessel Code (B&PV) Section XI. The licensee is currently committed to the ASME B&PV Code, Section XI, 1974 Edition and Addenda through Summer 1975, with approved exceptions.

a. Review of Procedures

The inspector examined the scope, technical content and data recording requirements of the Westinghouse inservice inspection procedures listed below for conformance to applicable codes and standards. No items of noncompliance or deviations were identified.

Number	Title
ISI-8 Rev. 7	Visual Examination Procedure
ISI-11 Rev. 9	Liquid Penetrant Examination Procedure
ISI-15 Rev. 6	Ultrasonic Examination of Studs, Bolts and Nuts
ISI-41 Rev. 4	Manual Ultrasonic Testing of Reactor Coolant Pump Flywheels

b. Observation of Work and Work Activities

The inspector observed the performance of the following examinations:

(1) Visual and liquid penetrant examination of weld no. 3 on 4" reducer loop 4 of RHR and SIS return line (Drawing No. POR 1-4403).

(2) Visual and liquid penetrant examination of weld no. 3 (BW) on 4" reducer loop 2 of RHR and return line (Drawing Nos. POR-1-4202 and RH-2501R-19-3).

(3) Visual and liquid penetrant examination of weld no. 23 on 8" main steam line (Drawing Nos. POR-2-2100 and EBE-1-4). Liquid penetrant examination of weld no. 23 was not accepted by the testing personnel because the surface temperature of the Main Steam line was below the minimum examination temperature specified in Westinghouse procedure ISI-11 of 60°F. The licensee stated that Main Steam line weld no. 23 will be reexamined during the May 1981 outage with liquid penetrant and Main Steam line temperature maintained in accordance with procedure ISI-11.

No items of noncompliance or deviations were observed.

c. Review of Records

The inspector examined the following inservice inspection records for compliance with ASME B&PV Code, Section XI:

(1) Ultrasonic Examination Report
Steam Generator, Loop B
Manway Cover-A, Bolts (all)
Drawing No. POR 2-1100

(2) Ultrasonic Examination Report
Reactor Coolant Pump Flywheel, Loop D
Drawing Nos. POR 1-5100 and POR 1-5100B

(3) Liquid Penetrant Examination Report
RHR Heat Exchanger 212A
Nozzle to Vessel Weld Nos. 2 and 3
Drawing No. POR 2-1120

(4) Liquid Penetrant Examination Report
SIS High Head, 3" x 2" Reducer, Loop 1
Weld No. 1
Drawing Nos. POR 1-4103 and SI-2501R-1-13

(5) Liquid Penetrant Examination Report
SIS & RHR Return, 4" reducer, Loop 4
Weld No. 3
Drawing No. POR 1-4403

(6) Liquid Penetrant Examination Report
SIS & RHR Return, 4" reducer, Loop 2
Weld No. 3 (BW)
Drawing Nos. POR 1-4202 and RH-2501R-19-3

In addition, calibration data sheets for the ultrasonic equipment and chemical analysis reports for halogens and sulphur in the ultrasonic couplant and liquid penetrant were found to conform to the requirements of the applicable inservice inspection procedure.

The inservice examinations were performed by the Virginia Corporation (TVC) Level II personnel with technical direction provided by Westinghouse. The qualification records of the onsite TVC Level II personnel were examined.

No items of noncompliance or deviations were identified.

6. Exit Interview

At the conclusion of the inspection a meeting was held with the licensee and contractor representatives denoted in paragraph 1. The scope and findings of the inspection were discussed and the licensee representatives committed to actions as detailed in the preceeding paragraphs of this report.