

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

REGION III

Report Nos: 50-440/81-08; 50-441/81-08

Docket Nos: 50-440; 50-441

License Nos.: CPPR-148; CPPR-149

Licensee: Cleveland Electric Illuminating Company
P. O. Box 5000
Cleveland, OH 44101

Facility Name: Perry Nuclear Power Plant, Units 1 and 2

Inspection At: Perry Site, Perry, OH

Inspection Conducted: April 1-30, 1981

Inspector:

J. Hughes
Hughes

5/5/81

Approved By: R. F. Warnick, Chief
Reactor Projects Section 2B

5/20/81

Inspection Summary

Inspection on April 1-30, 1981 (Report No. 50-440/81-08; 50-441/81-08)

Areas Inspected: Routine inspection by the IE Regional Resident Inspector of safety related construction activities, including followup on previously identified unresolved items (Units 1 and 2); followup on 50.55(e) report of fuel handling pool penetrations (Units 1 and 2); plant tours (independent inspection); observation of welding on electrical penetrations (Unit 1); observation of installation of reactor vessel internals (Unit 1); and observation of structure steel activities (Units 1 and 2). This inspection involved 195 inspector-hours onsite by one NRC inspector including 33 inspector-hours onsite during off-shifts.

Results: In the areas inspected, one apparent violation was identified (failure to follow specifications for installation of reactor vessel internals - Paragraph 6.b.).

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DETAILS

1. Persons Contacted

a. CEI

- *M. Edelman, Manager, Nuclear QA Department
- *G. Groscup, Manager, Nuclear Engineering Department
- J. Kline, General Supervising Engineer, Construction
- P. Martin, General Supervising Engineer, PQS
- G. Leidich, CQS QA Supervisor
- K. Combs, CQS Engineering Aide
- S. Talk, CQS Lead Electrical Quality Engineer
- T. Thompson, CQS Electrical Quality Engineer
- E. Christiansen, Nuclear Electrical Engineer
- *J. Bellack, General Supervisor Engineer, Administration & Special Products

b. Other Contractors Personnel

- J. Gilstrap, CQS, Mechanical Quality Engineer (GAI)
- J. Anulies, Site QA Manager (PBI)
- C. Burnett, Engineer Quality Manager (Kelley Steel)
- C. Hart, QA/QC Manager (LKC)
- D. Hess, QA Manager (GE IS&E)
- J. Bucka, QA Engineering (GE NEBG)

The inspector also contacted and interviewed other licensee and contractor personnel during this reporting period.

*Denotes those attending at least one of the exit meetings.

2. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item (440/81-02-01; 441/81-02-01): CEI, unable to produce seismic qualification data addressing the use of spade lugs for termination and connections in General Electric (GE) supplied termination cabinets (PGCC) in the control room. The RI reviewed GE letter dated March 30, 1981 to the licensee, subject "Qualification of Panels with Lock on Fork Spade Lugs". GE stated that a survey of seismic qualifications records has shown that spade lugs were used on Limerick Panel H12-P603 and successfully completed seismic qualification testing. The inspector did not review the seismic report DRF #H12-10. The RI observed several spade lugs located in the termination cabinets and determined that they were the same as GE's spade lug drawing number 225A4895, revision 8. The RI has no further questions on this matter and this item is closed.

3. Licensee Action on Other Items - Units 1 and 2

(Open) 10CFR50.55(e) Report, Subject: "Deficiency concerning the degradation of the G-41 System, fuel handling pool penetration piping." The RI observed the replacement of the fuel pool penetration number 8 by Newport News Industrial Corporation (NNIC) in accordance with nonconforming report (NR) #53-204, revision 6. The inspector witnessed the fit-up of the replacement

backing ring, replacement liner, and leak chase. Welding was performed in accordance with NNIC Weld instruction 946-N-W001. The RI witnessed Pullman Power Products (PPP) in-process repair of penetration number 12. The inspector determined the following; work was conducted in accordance with PPP welding procedures; proper welding materials were used; field process sheet was current; and liquid penetrant inspection was conducted in accordance with PPP procedure IX-PT-1.

4. Functional or Program Areas Inspected - Units 1 and 2 (Independent Inspection)

One or more plant areas were toured several times during this reporting period to observe general construction practices.

During the week of April 7-10 of this reporting period, the RI observed Region III electrical inspector's activities on Units 1 and 2. Summary and findings are contained in IE Inspection Report 81-07.

Three tours were made on off shift.

No items of noncompliance or deviations were identified.

5. Observation of Electrical Penetrations Work and Work Activities - Unit 1

The inspector observed in-process work activities including welding of safety related electrical penetrations located in the containment.

- a. The inspector observed the in-process fit-up and welding of electrical penetration equipment numbers 1R72S012, 1R72S013 and 1R72S007 in accordance with PPP welding procedure WPS-IT-12A, Westinghouse drawing no. E-40047, ISO-1R72-12, revision A.
- b. It was determined that (1) work was conducted in accordance with welding procedures and drawings; (2) proper welding materials were used; (3) the work area was free of weld rod stubs; and (4) physical appearance was acceptable.

No items of noncompliance or deviations were identified.

6. Observation of Installation of Reactor Internals - Unit 1

During this reporting period the inspector observed the installation of the reactor internals.

- a. On April 10, 1981 the inspector witnessed the installation of the shroud assembly (I1-B13-01) in accordance with General Electric (GE) layout drawing no. E-015-044, drawing no. 8-370-0, revision 3 and traveler no. T1-B13-01. Prior to the installation of the shroud assembly, the reactor vessel was vacuum cleaned. However, when the vacuum cleaner was turned off, the hose was still inside the vessel and dirt, dust and small foreign particles fell back down into the vessel. The inspector is unable to determine at this time if the reactor vessel is still in a Class "B" cleanliness condition in accordance with GE specification 21A2045, revision 2. This item is considered an unresolved item. (440/81-08-01)

- b. On April 12, 1981 the installation of the steam dryer/separator (1B13-D005) into the reactor vessel was being conducted during adverse weather conditions. GE specification 22A4671 paragraph 3.10.1 states in part "A protective cover shall be built over the top of the vessel. This cover shall not be removed for installation of internal parts unless the weather forecasts indicate reasonable assurance that rain or storms are not imminent and that there will be time to replace the cover." The inspector questioned the licensee on this subject. The licensee notified the inspector that nonconforming reports (NR) GE38-194 and GE38-199 were issued on this matter. Also, the Nuclear Quality Assurance Department issued an Action Request (AR) #297. During an inspection of the internals on April 16, 1981, the RI and GE QC personnel found that the internals had water (approximately 1 gallon) still standing on them. This condition represents an item of noncompliance as identified in Appendix A.(440/81-08-02)

7. Observation of Structure Steel Work and Work Activities - Units 1 and 2

The inspector observed work activities including welding, receipt inspection and storage of structure steel.

- a. The inspector observed receipt inspection of safety related structure steel and determined that procedural requirements had been met and that inspections verify acceptability in accordance with Pittsburgh Bridge Iron (PBI) specification no. 85 and Quality Assurance Program, Section 10.
- b. Tour of the storage area was made by the inspector to determine that control, marking, protection and segregation were in accordance with PBI Quality Assurance Program, Section 13.
- c. The inspector observed partially completed and completed columns Y5, Y6, Y7 and Y10 located at the 578 ft. elevation in reactor buildings. The inspector determined that installation was in accordance with the lay-out drawings D-561-036 and D-561-038. Welding was being performed by qualified welders and PBI welding procedure specification SMA-14 for joint design, weld rod issue slip was correct in accordance with PBI Quality Assurance Program, Section 9, Paragraph F.3. The inspector determined that the fit-up/alignment was within the tolerances of the drawings.

NOTE: During the inspector's observation of the welding activities, the inspector asked the welders (4) how they determined the pre-heat temperature (225° F.). The welders stated that they were issued temp-sticks by the Quality Control Section, but were unable to produce them due to various reasons. Prior to the inspector leaving the work area, PBI QC section reissued new temp-sticks to each welder/fitter. PBI also issued a Corrective Action Notice (CAN) No. 4-81-1 to construction immediately. A training session was held the same day instructing welders/fitters to use temp-sticks for pre-heat welding.

- d. The inspector reviewed PBI ultrasonic examination test reports nos. UT-34-77-81-47U, UT-34-77-81-48U, UT-34-77-81-48SB and UT-34-77-81-49U for the aforementioned column welds. Test reports appear to be in accordance with PBI procedure for ultrasonic examination, UT-NIC-059 revision 4.

No items of noncompliance or deviations were identified.

Unresolved Items

Unresolved items are matters about which more information is required in order to determine whether they are acceptable items, items of noncompliance, or deviations. Unresolved items disclosed during this inspection are discussed in Paragraph 6.a.

Exit Meetings

The inspector met with licensee representatives (denoted in Persons Contacted) on April 3, 10, 17 and 24, 1981. The inspector summarized the scope and findings of the inspections performed.