

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-440/85050(DRS)

Docket No. 50-440

License No. CPPR-148

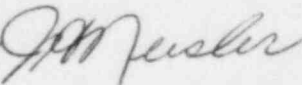
Licensee: Cleveland Electrical Illuminating Company
Post Office Box 5000
Cleveland, OH 44101

Facility Name: Perry Nuclear Power Plant, Unit 1

Inspection At: Perry Site, Perry, Ohio

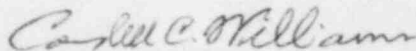
Inspection Conducted: July 31, August 2, 14-16, 1985

Inspector: J. H. Neisler



9-5-85
Date

Approved By: C. C. Williams, Chief
Plant Systems Section



9-5-85
Date

Inspection Summary

Inspection on July 31 through August 16, 1985 (Report No. 50-440/85050(DRS))

Areas Inspected: Routine safety inspection of licensee activities relative to: previously identified inspection items; construction deficiency reports; quality records; 10 CFR 50, Appendix A, GDC 4 Criteria; as-built verification of electrical cable trays and control panels and electrical penetration seal installation. The inspection involved a total of 30 inspector-hours onsite by one NRC inspector.

Results: No violations or deviations were identified; however, an unresolved issue was identified in Paragraph 7 which will require further evaluation.

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DETAILS

1. Persons Contacted

Principle Project Organization Employees

*C. M. Shuster, Manager, Quality Assurance
*E. Riley, General Supervisor, Quality Assurance
*K. Kaplan, Senior Engineering Technician
*S. Tulk, Unit Supervisor, CQS
*B. Thompson, Lead Civil Quality Engineer
*K. Cimorelli, Lead Electrical Quality Engineer
*E. Parker, Unit Supervisor P/M, CQS
*C. Angstadt, Senior Engineer, NCES
*R. Bierkee, Lead Engineer SCV Group, NCES
R. Matthys, Lead P/M Quality Engineer, CQS
*V. Higaki, Supervisor Electrical/I&C, CQS
R. Segen, Lead Construction Procurement
E. Thomas, Equipment Qualification Engineer
W. Augsburg, Electrical Engineer
R. Varner, Quality Engineer, CQS
D. D'Amico, Equipment Engineer
*W. Morris, Quality Engineer, CQS
*F. Manno, Alternate Lead Seismic Inspector
D. Siedlarczyk, Quality Engineer, CQS
*G. Greeneberg, Lead Electrical QC, CQS

*Denotes those persons attending exit interview.

2. Licensee Action on Previously Identified Items

(Closed) Unresolved Item (50-440/83-25-02): Verification of disposition of NCR identified in audit report. The inspector determined that Pullman Power Products Procedure XV-2 was revised on March 22, 1984, to include the requirement in Section 10.3 that vendors shall be notified of nonconformances and that the notifications shall be formally documented and copies attached to the nonconformance report. Appendix D, Step 13, requires the QA manager or his designee to review all documentation affecting the resolution of a nonconformance report to assure completeness and acceptability. In addition, the inspector reviewed training records, surveillances and audit reports to assure that this item has been satisfactorily resolved.

3. Construction Deficiency Reports (10 CFR 50.55(e))

(Closed) 10 CFR 50.55(e) Report (50-440/85014-EE) (DAR 133): Safety Relief Valves actuator solenoids Viton seals and static O-rings failed pressure test after being irradiated during qualification testing. The inspector examined documentation attesting to the replacement of the Viton material with qualified EPDM materials and the solenoids with hermetically sealed solenoids manufactured by Eugene Seitz Company.

In addition, the inspector reviewed documentation describing the successful qualification and pressure testing of the replacement seals, O-rings and solenoids.

(Closed) 10 CFR 50.55(e) Report (50-440/84-41-EE): During loss of offsite power, a failure of Division 1 direct power source could prevent Division 2 direct current circuitry from initiating an automatic start signal to Division 2 control room chiller. The inspector reviewed the architect/engineer's analysis of the consequences of the failure of the control room chiller to automatically start on loss of off-site power. The analysis shows that temperature rise in the control room would not be at a rate to cause temperature in the control room to exceed design limits before the operators could manually start the chiller units. The inspector's review of ECN 20137-86-348/B and revised drawing B-208-206, sheet 68, determined that the design has been changed to assure the automatic start of the Division 2 chiller upon loss of Division 1 direct current power. The licensee withdrew this item as a reportable deficiency. The inspector concurs with the withdrawal.

4. Review of Quality Records

The inspector reviewed quality assurance records for electrical cable trays, conduits and circuits that had been visually inspected during the as-built inspection walkdowns (Section 6). Records reviewed included receiving records, installation and inspection checklists, qualification records, personnel training records, pull slips, insulation resistance/continuity test reports, pre-pull walkdown checklists, pre-cut/re-spool inspection checklists, termination cards and termination inspection checklists, weld material issue slips, and certified material test reports. Records for the following circuits were reviewed:

1R23F	20C
1R23F	17B
1R22C	282B
1R22C	162B
1R22C	170C
1R61A	1038B
1B21A	758A
1C11R	293B

No violations or deviations were identified in this area.

5. 10 CFR 50, Appendix A, GDC 4 Criteria

The inspector observed non-seismically qualified fire sprinkler piping installed over Class 1E safety-related cable trays on the 634 level cable spreading room. Discussions with licensee representatives revealed that the licensee had identified the non-seismic pipe over seismically qualified trays in this area and had initiated a program designed to identify and correct conditions where non-seismically qualified components could cause damage to seismically qualified components during a design basis seismic event. The inspector's review of the licensee's

program determined the program as outlined in approved procedures to be adequate to identify and correct those conditions where non-seismic components installed over seismic Category 1 components exist in the plant.

No violations or deviations were identified in this area.

6. As-Built Electrical Systems Verification

The inspector selected 14 electrical cable trays for examination and comparison with the as-built drawings to determine whether the cable trays had been installed according to the as-built drawings and applicable specifications. The inspection consisted of a walkdown and visual inspection of the cable trays including tray location, cable routing within the trays, tray support design and location, weld inspection, cable tray fill and barrier installation. The cable trays selected for this inspection were:

657A	1331B
1316B	693A
1317B	645A
1822B	1843B
1338B	1809B
1356B	272B
1822B	1820B

In addition to the cable tray inspection, the inspector performed an as-built verification inspection of terminations in Panel 1C61-P001. During the inspection of this panel the inspector noted some discrepancies between the as-built terminations and the terminations shown on drawing D-209-039, sheet 5, Revision D, used for the verification inspection. Licensee representatives indicated that there were engineering change notices being posted against the drawing that resolved the apparent discrepancies.

No violations or deviations were identified in this area.

7. Penetration Seals

The inspector observed the installation of penetration fire seals in electrical penetrations. Observations included the in-plant storage of seal material components, installed silicone foam and elastomer seals in floor and wall penetrations. In floor penetrations ECC 3032 and ECC 3034 on the 620 foot level of the control complex, the inspector observed that the silicone foam had shrunk away from the penetration sleeves leaving a void of undetermined depth along the edges of the seal. The inspector questioned licensee representatives as to whether the shrinkage was within acceptable limits and what method was used to determine whether an acceptable seal depth was maintained in the penetration. NCR CQC-4075 has been issued by the licensee to resolve this issue. This item remains unresolved pending the NRC review of the disposition of NCR CQC-4075 during a future inspection (50-440/85050-01).

No violations, deviations, or unresolved items other than that discussed above were identified.

8. Unresolved Items

Unresolved items are matters about which more information is required to ascertain whether it is an acceptable item, a deviation or a violation. An unresolved item disclosed in this inspection is discussed in Paragraph 7.

9. Exit Interview

The inspector met the licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection. The inspector summarized the scope and findings of the inspection. The licensee representative acknowledged this information. The inspector also discussed the likely informational content of the inspection report with regard to documents and processes reviewed during the inspection. The licensee representatives did not identify any such documents/processes as proprietary.