

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-440/85032(DRS)

Docket No. 50-440

License No. CPPR-148

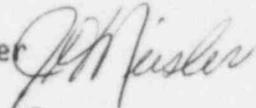
Licensee: Cleveland Electric Illuminating Company
Post Office Box 5000
Cleveland, OH 44101

Facility Name: Perry Nuclear Power Plant, Unit 1

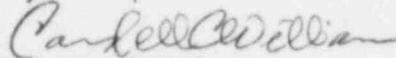
Inspection At: Perry Site, Perry, OH

Inspection Conducted: May 29-31, 1985

Inspector: J. H. Neisler



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



6/19/85
Date

Inspection Summary

Inspection on May 29-31, 1985 (Report No. 440/85032(DRS))

Areas Inspected: Follow up inspection of licensee's corrective actions relative to previously identified noncompliances, unresolved items, construction deficiencies (10 CFR 50.55(e), and 10 CFR 21 reports). The inspection involved 22 inspector-hours onsite by one NRC inspector.

Results: No violations or deviations were identified during this inspection.

DETAILS

1. Persons Contacted

Principal Licensee Employees

- *C. M. Shuster, Manager, Quality Assurance
- *F. R. Stead, Manager, N.E.D.
- *E. Riley, General Supervisor, CQS
- *K. Cimorell, Lead Quality Engineer, NQAD
- *S. Tulk, Unit Supervisor, NQAD
- *E. Parker, Unit Supervisor, NQAD
- *E. Shambaugh, Lead Structural QE, NQAD
- *K. C. Kaplan, Senior Engineering Technician, NLFMS
- D. D'Amico, Equipment Engineer
- R. Neuendorf, Quality Assurance
- E. Willman, Engineering
- R. Matthys, Lead Quality Engineer, NQAD

*Denotes those persons attending exit interview.

2. Licensee Action on Previous Inspection Findings

(Closed) Violation (440/83-26-01). Contractor modified the bus bar support between 4160 volt switchgear cubicles EH-1114 and E-1115 in accordance with guidance provided in a letter (PY-50-033-1677) from site engineering. This field change had not been reviewed and approved by the Nuclear QA Department and documented in accordance with approved procedures for field design.

The inspector reviewed the manufacturer's, Brown Boveri, letter of March 8, 1984, that approved the modification. The field modification included elongation of the bus bar mounting holes by removing any or all of 0.21 inch stock outward toward the nearest edge.

A Brown Boveri letter dated September 4, 1984, provided an analysis of the switchgear bus bars after the modifications were performed. The analysis concluded that the modified or elongated holes would support the bus under fault currents, maintain dielectric clearance from steel components, and provide an adequate seal for the bus openings.

The inspector also examined nonconformance reports OQC-0297, OQC-0403, OQC-0404, OQC-0405 and Inspection Report R84-1807.

Based on the review by the inspector and due to the fact the manufacturers and architect/engineers have determined that neither the seismic nor electrical integrity are compromised, the inspector concurs with the NCR disposition of "use as is." This item is considered to be closed.

(Closed) Violation (440/83-31-02). Raceway sketches used to perform installation of conduit and conduit supports in Unit 1 containment drywell

area lacked appropriate procedural controls for items such as issuance, revision, retrieval and approval. Inspection records generated for in-process inspections performed in accordance with these sketches did not contain applicable sketch revisions.

The inspector reviewed licensee audit report 954 and Action Request (AR) 868-02. In response to AR 868-02, the contractor and licensee quality organizations performed a walkdown inspection of conduit and conduit supports that had been installed with and without sketch revisions. The walkdown was performed to the latest Perry series 500 drawings. Personnel retraining records were also reviewed.

Comstock procedure 4.3.1 for electrical installation was revised to provide control sketches in the field and record control for in-process inspection checklists. Site engineering issued instruction No. 50-9955 to provide field interface between engineering and construction for release of field sketches. Instruction No. 50-9570 was issued to designate authorized reviewers for field sketches. The inspector determined that adequate corrective action has been accomplished and measures established to prevent recurrence, therefore, this item is considered to be closed.

(Closed) Unresolved Item (440/83-08-01). Meggering requirements for Class 1E cable. The inspector's review of SP-33 "Cable Testing" dated April 10, 1984, indicated that it does not require the performance of insulation resistance tests (meggering) on low voltage control and instrument cable. The requirement per the specification is for the contractor to megger and continuity test all Class 1E and non-1E power cables (125 VDC and 480 VAC to 13.8 KV working voltages) prior to termination.

IEEE Standard 336-1975 states that insulation resistance tests shall be conducted as specified.

Comstock procedure 4.3.18 section 3.1.9 requires quality control inspectors to witness all safety-related megger and continuity tests. This item is therefore considered to be resolved.

(Closed) Violation (440/83-06-01). Failure to provide control over deficiencies identified by an internal documentation task force in that these deficiencies were addressed on uncontrolled review checklists and internal LK Comstock letters.

The contractor, LK Comstock, issued a quality control inspection report for each concern identified during the task force document review to track the concern.

The licensee construction quality section (CQS) issued surveillance inspection reports on each of the task force concerns. In addition, CQS performed surveillances of other site contractors to verify that similar conditions did not exist within the other contractor organizations.

The licensee implemented Special Project Plan SPP-007 to assure that the LK Comstock Task Force activities were properly addressed and that appropriate corrective action was taken to monitor Comstock's activities relative to the task force concerns.

Since the documentation task force's concerns were adequately tracked and dispositioned, the inspector has no further concerns in this area and this item is considered to be closed.

(Closed) Unresolved Item (440/82-09-10). Receipt inspector certifications included all items received by the site contractor, although the training received by the inspection personnel was primarily concentrated in one area, the cable yard.

The inspector reviewed training records for cable yard inspectors. Two of the inspectors had been trained only in receipt inspection of cable. At the time of the 82-09 inspection, these individuals were only used for receipt inspections of cable. Subsequently, each inspector received training and certification as receipt inspectors of components and equipment. The inspector determined that the current examination for receipt inspectors includes the cable yard, general receipt inspection, storage and handling. This item is considered to be resolved.

(Closed) Violation (440/81-19-19). LK Comstock (LKC) failed to establish adequate measures to control purchased hardware such as bolts, nuts, and cable mounting bases and stored them in the stockroom in such a manner that defective items could not be traced to the appropriate documentation or shipment.

The inspector performed a visual inspection of the LKC storage area. It was observed that safety-related, nonsafety-related, and nonconforming items each have separate storage areas. QC hold areas have been established for items awaiting inspection. Hardware in bins are identified by tags on each bin providing the nomenclature of the parts in the bin. Each size or type hardware item are assigned a separate bin.

The inspector also reviewed licensee Audit Report 955 dated February 10, 1984, this audit was performed to verify that segregation of hardware items was being maintained. Based on the inspector's observations and licensee's audits, this item is considered to be closed.

(Closed) Violation (440/83-29-01). Lack of procedural controls for relay settings.

The inspector reviewed NDP Procedure 3-0310 "Setting Change Request Form 995" Revision 1, dated June 11, 1984. This procedure assigns responsibilities for calculating relay settings, performing design reviews, disposition of the relay setting form (995), work performance, and the final processing of the Form 995.

Procedure TPI-25 Revision 0, dated July 30, 1984 "Initial Checkout and Run-in" section 4.1.8, details the distribution and control of the relay setting change form (SCR-995) after completing the settings.

The inspector determined from this review that procedural controls are now adequate and this item is considered to be closed.

(Closed) Violation (440/84-07-01). Four examples of inadequate inspection.

- a. Inspection reports documenting inspections performed on rework on the Power Generation Control console (PGCC) are in some instances not clear and do not specify what was inspected and what was acceptable. Examples included inspection reports on FDI-WNBE and ECN 245.

The inspector reviewed the results of licensee audit 990. The audit scope included over 300 inspection reports generated during the implementation of ECNs, FDDRs, and FDIs. Where the audit identified irregularities in the inspection reports, the reports received an additional review or a reinspection was performed. The inspector's review of the reports, the audit report and the resulting corrective action concludes that those reports are now acceptable.

- b. Inspection reports verifying corrective action taken on LKC Nonconformance report 2375 contained discrepancies such as the date of review being a day earlier than the actual date of the inspection and inconsistencies in the dates of the calibration of crimping tools.

The inspector's review of documentation related to this finding determined that inspectors and reviewers had been retrained. Reinspections had been performed to verify crimper calibration dates and to document the correct dates. Reinspections and rereviews of the inspection reports had replaced/corrected the discrepant inspection report.

The inspector's examination of the crimper calibration record found that the crimper calibration was current at the time it was used.

- c. Inspection reports verifying corrective action taken on LKC NCRs 2568 and 2569 contained misleading CEI "Hold Point" stamps which were signed and dated several days after the actual inspection was performed. Such practice renders it difficult to readily verify whether the hold point was honored.

The inspector determined that at the time of the finding the licensee's practice was to stamp the hold point release after the document was considered complete. Complete was defined as being after the secondary review. As a result of the above concern, SIP-33 was revised to require the hold point stamp/release to be applied at the time of the installation inspection.

- d. General Electric Product Quality Certificate (PQC) certifying NAMCO limit switches intended for installation on the steam turbine control valves were accepted during receipt inspection even though the serial numbers of the limit switches were not furnished on the PQC to establish traceability.

Specifications 301 and 793.05 do not require serial numbers on NAMCO limit switches. NAMCO limit switches are not traced by serial number, instead, they are traced by date code. Date codes were listed on the PQC examined by the inspector.

All four parts of this violation are considered to be closed.

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

(Closed) 440/83-13-EE. Electrical ring lug terminations in the HPCs diesel-generator panel were found to be improperly crimped. Approximately 300 terminations were involved.

The inspector reviewed completed nonconformance report P033-1650 documenting that the terminations had been replaced and inspected by quality control inspectors. FDDRs KL1-735 and KL2-591 provided the acceptance criteria for inspection. Certificates of Compliance for Burndy lugs used for the rework were on file. Visual inspection of the reterminations by the NRC inspector verified that the work was complete in the Unit 1 HPCs diesel generator panel. This item is considered to be closed.

(Closed) 440/83-15-EE. MSIV actuator, Hiller/Scheffer model SA-A034 failed qualification testing to NUREG-0588. The actuator was exposed to high levels of gamma radiation and temperatures which resulted in hardening of the actuator lubricant. This condition which inhibited mechanical motion of the actuator, and deterioration of Viton seals and O-rings causing hydraulic and pneumatic leakage.

The inspector examined documentation that the original lubricant had been replaced with a high density silicone grease and that the Viton seals and O-rings were replaced with EPDM seals and O-rings. Subsequent to the rework, the actuators were successfully retested to the radiation and aging requirements of NUREG-0588. All Unit 1 actuators have been qualified, returned to the site and installed. The inspector also reviewed NCRs TAS-45, TAS-80 and FDI 134-824111. The NCRs and the FDI were correctly dispositioned, corrective actions accomplished and the appropriate inspections performed. This item is considered to be closed.

(Closed) 84-44-EE. Raychem heat shrink tubing rated for use outside containment was used for in-line butt splices in a harsh environment. The licensee withdrew this item as not being a reportable deficiency on November 14, 1984.

The inspector's review of Raychem WCSF-N heat shrink splice material documentation revealed that the material was qualified for: 442°F at 120 psig (max) to 232°F at 232 psig (min) for greater than 30 days; radiation exposure of 215 megarads (gamma) integrated dose over 40 years; and to a continuous operating temperature of 194°F.

The FSAR maximum DBE conditions for the area are: 310°F at 8.5 to 0.0 psig for 1.5 hours, radiation exposure of 34 megarads (gamma) integrated over 40 years and temperatures not to exceed 189°F under an abnormal condition. Based on the above, the inspector concurs with the licensee's withdrawal of this item as not reportable.

(Closed) 84-39-EE. Standby diesel-generator field flashes for an extended time (60 seconds) during coastdown with potential to cause the field flash resistors to overheat and expose other components to excessive temperatures.

The inspector reviewed Delaval Service Information Memorandum 366 detailing the modifications to be installed to prevent damage to the resistors during coastdown of the diesel-generators. The inspector also verified that the modifications had been properly installed. The successful testing of the diesel generators subsequent to the modification was witnessed by the NRC Senior Resident Inspector (construction). This item is considered to be closed.

4. Exit Interview

The inspector met with licensee representatives (denoted in paragraph 1) during and at the conclusion of the inspection and summarized the scope and findings of the inspection. The licensee acknowledged the inspector's comments.

The inspector also discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspector during the inspection. The licensee did not identify any such documents or processes as proprietary.