

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-440/85071(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: October 21-24, 1985

Inspector: *J. H. Neisler*
J. H. Neisler

12/2/85
Date

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

12/2/85
Date

Inspection Summary

Inspection on October 21-24, 1985 (Report No. 50-440/85071(DRS))

Areas Inspected: Special inspection of allegations relative to control panels, motor control centers, and cable pulls. The inspection involved a total of 16 inspector-hours by one NRC inspector.

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

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DETAILS

1. Persons Contacted

Principle Licensee Employees

*E. Riley, General Supervisor, CQS
*R. Matthys, Lead Pipe/mechanical, CQS
*N. Lehman, Staff Analysis, PPTD
*F. Sondgeroth, Senior Engineer, Licensing
*B. Liddell, Operations Engineer, PPTD
*K. Cimorelli, Lead Quality Engineer, CQS
*S. Tulk, Unit Supervisor, CQS
*E. Parker, P/M Supervisor, CQS
S. Rowbotham, Quality Engineer, CQS
W. Morris, Quality Engineer, CQS
J. Haddick, Licensing Engineer
J. Sumrow, Quality Inspector, OQC
H. Spackman, Quality Inspector, OQC
B. Ferrell, Licensing Engineer

Contractor and Other Personnel

C. Mitchell, Quality Control Manager, LK Comstock

*Denotes those persons attending exit interview.

2. Allegation Review

- a. (Closed) ATS RIII-85-A-125, Parts 1 and 2: During a long cable pull in the control complex through the duct bank from manhole number 2 to the essential service water pump house cables were pulled without use of a pull tension measuring device. In two instances cable was walked on by other crafts during cable pulls.

NRC Review

The inspector determined by interviewing cognizant individuals still on site and the review of nonconformance report (NCR) P033-1964, that the cables had been pulled from the manhole to the essential service water pump house (ESWH) using a tension measuring device. However, approximately 50 feet of excess cable was pulled into the ESWH. The cable was then pulled back 50 feet to remove the excess cable without using a tension measuring device.

The inspector reviewed NCR P033-1964 that was issued to identify and correct possible damage that could result from pulling the cables without the use of tension measuring devices. The corrective action included the performance of insulation resistance and continuity tests on the cables to determine whether the cables had sustained any damage during the pull. The inspector reviewed insulation resistance and continuity test records for these cables and determined that the cables had not been damaged during the pull back through the manhole.

In the two instances of the crafts allegedly walking on the cables during pulling activities, the inspector reviewed cable test records for cables in these areas and determined from the test results that the cables had suffered no damage from being walked on by craft personnel. The test records were generated as a result of site procedural requirements that cables must be tested subsequent to being installed.

Conclusion

Since the conditions described by the alleged had been identified and corrected in accordance with the licensee's quality assurance program, this allegation was not substantiated relative to its having a deleterious effect on plant safety.

- b. (Closed) Allegation ATS RIII-83-A-093: NRC Region III received additional allegations from the person identified as individual "B" in Inspection Report No. 440/83037. The allegations identified conditions that the alleged believed to be deficient in panel 1E-22-P001/2 and motor control centers 1R24-S018 and 1R24-S019. The alleged concerns were previously addressed in Region III Inspection Reports No. 440/83037, 440/84005, 440/84007, 440/84021, 440/85045 and 440/85054.

- (1) Panel 1E-22-P001/2 The alleged identified 15 concerns related to this panel as follows:

- (a) Concern 1: The following breakers have compression type lugs, however, the conductors have a lug which is also terminated to such device by means of a lug crushed to fit into the compression slot. Device Nos. CB8, CB12, CB14, CB16, CB18, CB13, CB15, CB17 and CB21.

NRC Review: The bent or crushed terminal lugs were reported to the NRC as a construction deficiency pursuant to 10 CFR 50.55(e) on June 15, 1983. The licensee's corrective action was to replace the lugs, this action was reviewed and accepted in NRC Inspection Report No. 440/85032.

- (b) Concern 2: Device No. K-21 face plate missing; bakelite is cracked and chipped away.

NRC Review: The inspector verified that Device K-21, as installed does not have a missing face plate nor was the bakelite cracked or chipped. The device had been replaced per FDDR KL1-735.

- (c) Concern 3: Device No. S-5 auxiliary relay inspection cover missing.

NRC Review: The inspector's conversations with the relay manufacturer's representative revealed that covers (face plates) are optional with these particular devices and are

not normally used inside panels. There is no cover on this relay and the inspector could determine no requirement to install a cover.

- (d) Concern 4: Terminal strips TB17 and TB22 have no I.D. on strip point location.

NRC Review: The inspector verified that terminal strips TB17 and TB22 have strip point locations properly identified.

- (e) Concern 5: Device, Transformer, No. T4 has compression type lugs, refer to Item No. 1 of this page.

NRC Review: This item was closed as 10 CFR 50.55(e) Item No. 440/83013-EE in Inspection Report No. 440/85032. All improperly crimped lugs were replaced.

- (f) Concern 6: Training radius violation in device; Panel Alarm No. A-8, Device No. A-9 meter also has violations.

NRC Review: The inspector verified that Device No. A-8 and A-9 external wiring had no training radius violations when final inspected. There are no regulatory requirements governing training radius of vendor wiring inside instruments and panels, therefore the alleged's belief that LK Comstock procedures applied to these vendor panels was incorrect, the inspector, however, verified that wiring inside these devices was acceptable.

- (g) Concern 7: The following devices have broken wire strands:

<u>Device Number</u>	<u>Wire Number</u>
DS-17	L-17
S9	N/A
S6	N/A
S1	N/A
S2	N/A

NRC Review: The inspector examined wires to each of the identified devices and observed that none of the wires had visible broken strands.

- (h) Concern 8: Device No. CB6, (a breaker) terminal board insulator between points 5 and 6 is cracked. Also no I.D. on strip terminal point location.

NRC Review: The inspector verified by observation that a crack does not exist between terminal points 5 and 6 and that terminal strips are properly identified.

- (i) Concern 9: On termination of second set of conductors below Device No. CB6, terminal points No. 4, 5 and 6 appear to be terminated wrong by vendor . . . unit No. 2 which is identical is terminated opposite of each other . . . we have no drawings for cross reference.

NRC Review: The inspector examined the General Electric (GE) engineering response to this item. The GE response recommended "use-as-is" since the second set of conductors is terminated according to the GE design. The inspector concurred with the "use-as-is" disposition after reviewing the design drawings.

- (j) Concern 10: Device No. CB5, no terminal I.D., also CB9.

NRC Review: The inspector verified that terminals on CB5 and CB9 are properly identified.

- (k) Concern 11: Device No. CB10, no terminal strip point location.

NRC Review: The inspector verified that terminal point location are properly identified at CB10.

- (l) Concern 12: Terminal strip 14, all said terminations are correctly terminated to there correct points, however, the vendor drawings show all terminations to be on the right side of strip.

NRC Review: The inspector examined terminal strip 14 and determined that the allegor was correct in that all terminations are correctly terminated and that vendor terminations are on the left side of the terminal strip. The inspector determined that it does not matter which side of the terminal strip has the vendor terminations because it has no affect on function or nuclear plant safety.

- (m) Concern 13: The following device called a Synchioscope (Serial No. 156001903) on stud three and four have three wires under one termination point.

NRC Review: The inspector verified that terminations on the synchioscope are in accordance with design drawings. Synchioscope terminal studs are designed to accommodate more than three wires per stud.

- (n) Concern 14: Device No. K-15 on terminal, terminal point 13 has four Tugs under one termination point.

NRC Review: By visual inspection, the inspector verified that K-15 does not have four lugs on terminal point 13 or any other point.

- (o) Concern 15: The following devices and terminal strips have gray paint overspray . . . the normal finish of the jet black bakelite areas have heavy streaks of gray in them sometimes covering up point term location.

Terminal Boards 9, 13 and 14
Devices K-57 and A3

NRC Review: The inspector examined the terminal boards and devices. If unacceptable paint deposits existed in February 1982, when inspected by the alleged, the paint was subsequently removed and is currently acceptable.

During the investigation of the above allegations the inspector interviewed the alleged's former supervisor, his lead inspector, and other quality inspector's who were cognizant of the work performed on this panel. The interviewees stated that receipt inspection had identified deficiencies in the panel, these deficiencies were reported to the supplier, General Electric. GE issued a field design deficiency report to authorize corrective action. This corrective action was satisfactorily accomplished.

Conclusion: This allegation was not substantiated as affecting nuclear safety since the deficiencies were properly identified and adequately corrected.

- (2) Allegation: The alleged identified several circuit breaker cubicles in motor control centers 1R24-S018 and 1R24-S019 that he said contained wiring deficiencies in 1982.

NRC Review: The NRC inspector visually inspected each field installed conductor in each circuit breaker cubicle in motor control center 1R24-S018 and 1R24-S019. No bend or training radius violations, nicks, broken strands, lug bend violations, cuts, kinks or inadequate supports were evident during the inspection. If these conditions existed at one time, they were subsequently adequately corrected.

Conclusion: This allegation was not substantiated based on the inspector's observations during his visual inspection of the conductors in each circuit breaker cubicle.

3. Exit Interview

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