

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-483/82-131(DPRP)

Docket No. 50-483

License No. CPPR-139

Licensee: Union Electric Company
Post Office Box 149
St. Louis, MO 63166

Facility Name: Callaway Plant, Unit 1

Inspection At: Callaway Site, Callaway County, MO

Inspection Conducted: September 1-30, 1982

Inspector: *J. M. Weisatt for*
J. H. Neisler

10/27/82

Approved By: *J. M. Weisatt for*
J. E. Konklin, Chief
Projects Section 1A

10/27/82

Inspection Summary

Inspection on September 1-30, 1982 (Report No. 50-483/82-13(DPRP))

Areas Inspected: Electrical and instrument cable installation and termination. Safety related tanks and welding. Containment penetration welding. Piping and hanger installation. IE Bulletins and Circulars. This inspection involved a total of 96 inspector-hours onsite by one NRC inspector, including 11 inspector-hours onsite during off-shifts.

Results: Three items of noncompliance were identified (preservation of installed cables, nonconforming welds on tank nozzles, and failure to follow II/I procedures).

DETAILS

1. Persons Contacted

Union Electric Company (UE)

- *W. H. Weber, Manager, Nuclear Construction
- R. L. Powers, Site QA Superintendent
- *R. Veatch, QA Supervising Engineer, Construction
- *J. V. Laux, QA Supervising Engineer, Startup
- D. Brady, Pre-op/Startup
- R. Phillips, Pre-op/Startup
- *R. Williams, Pre-op/Startup
- S. Hogan, QA Engineer
- B. Stanfield, QA Assistant Engineer
- J. Kaelin, Superintendent Startup
- *A. Sassani, QA Engineer, Consultant
- H. Millwood, QA Engineer, Consultant
- C. Plows, QA Engineer, Consultant
- M. Dossett, QA Engineer, Startup
- J. Marden, QA Engineer, Startup

Daniel International Corporation (DIC)

- C. Wagner, Project Manager
- D. King, Construction Manager
- *J. Long, Project Welding Manager
- D. Hayes, Weld Engineering
- *M. Stokes, Project Electrical Engineer (Delcon)
- D. Pado, Hanger Engineer

*Denotes those persons attending one or more exit interviews.

The inspector also contacted and interviewed other licensee and contractor personnel, including craftpersons, QA/QC, and technical and engineering staff members.

2. Inspection and Enforcement Bulletins (IEB)

The inspector examined licensee actions relative to the following Inspection and Enforcement Bulletins.

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| IEB 79-07 | Seismic Stress Analysis of Safety Related Piping. Licensee has responded to the bulletin. Analyses have been performed, computer programs listings have been provided. Piping computer programs used in seismic analysis have been verified and methods of verification provided. This bulletin is considered closed. |
| IEB 79-13 | Cracking in Feedwater System Piping. Sent to licensee for information, no action required for construction facilities. This item is considered closed. |

- IEB 79-15 Deep Draft Pump Deficiencies. Licensee has provided all information requested in this bulletin and it's Supplement No. 1 to IE Division of Reactor Construction. Acceptability of the response will be determined by that office. The inspector has no further questions concerning this bulletin. This bulletin is considered closed.
- IEB 79-21 Temperature Effects on Level Measurements. This bulletin was sent to licensee for information only. No action was required by licensees having only construction facilities. This bulletin is closed.

3. Inspection and Enforcement Circulars (IEC)

The inspector examined licensee actions relative to Inspection and Enforcement Circulars. For the circulars listed below, the licensee has performed the necessary reviews and assigned responsibilities for the determination of applicability to the Callaway facility. The required actions have been initiated or completed. These circulars are considered to be closed.

- IEC 79-05 Moisture Leakage in Stranded Conductors
- IEC 79-11 Design/Construction Interface Problem
- IEC 79-12 Potential Diesel Generator Turbocharger Problems
- IEC 79-13 Replacement of Diesel Fire Pump Starting Contactors
- IEC 79-20 Failure of GTE Sylvania Relay, Type PM Bulletin 7305, Catalog SU12-11-AC with a 120V AC Coil
- IEC 79-23 Motor Starters and Contactors Failed to Operate
- IEC 80-17 Fuel Pin Damage Due to Water Jet from Baffle Plate Corner
- IEC 80-18 10 CFR 50.59 Safety Evaluations for Changes to Radioactive Waste Treatment Systems
- IEC 80-21 Regulation of Refueling Crews
- IEC 80-22 Confirmation of Employee Qualifications
- IEC 81-02 Performance of NRC-Licensed Individuals While on Duty

4. Electrical and Instrument Cable Installation and Terminating

The inspector examined contractor activities involving the installation and termination of safety related electrical and instrumentation cables. Included were observation of in-process terminations and installation, completed terminations and installations, and inspection records of completed work.

- a. The inspector examined the completed termination of cable 1RPR05AA and noted that terminations used nylon screws and washers. Review of inspection records showed that the use of nylon screws and washers was documented in the inspection report for cable 1RPR05AA and that the tracking system for use of non-metallic screws was adequate to assure their being replaced subsequent to preoperational testing.
- b. The inspector observed completed cable tray and cable installation in the reactor building and on the 2000 foot elevation of the auxiliary building. The installations observed appeared to meet the separation criteria listed in the electrical specifications, FSAR and IEEE-384. Electrical hangers in the areas inspected appeared to be installed in accordance with specifications and drawings.
- c. The inspector observed at approximately elevation 2018 in the reactor building that cables entering cable tray 4U2A39 from conduits 4U2A1L and 4U2A1Z had excessive bends caused by post installation activities in the area and that on one of the cables, 4EJG04BF, the cable jacket and insulation had been damaged. In the same cable tray run, the inspector observed a pipe flange with a short length of pipe attached laying on the cables at tray Section 4U2A37 and on the cables in cable tray Section 4U2A38 there were used grinding disks and pieces of bare steel wire. The inspector informed the licensee that the failure to apply adequate measures for the protection and preservation of installed safety related equipment constitute an item of noncompliance with 10 CFR 50, Appendix B, Criterion XIII. (50-483/82-13-01)

5. Piping, Welding and Supports

The inspector observed licensee and contractor activities involving in-process piping and hanger installation, completed installations and weld material control.

- a. The inspector observed rework in progress on pipe support EJ02-R020-131Q. Personnel performing the work possessed current qualifications for the work being performed. Hanger data package with work instructions was at the work location.

Material used for the work was in accordance with specialfications. Hold points for inspection had been established and were being observed.

- b. Weld material control procedures were inspected at the issue point. Material was issued only on approved issue forms. Rod ovens had current temperature calibrations. Materials are segregated according to type and heat number. Left over rod is being returned to the issue point according to procedure. Locked rod stub barrels are provided. Portable rod ovens are plugged in to electrical outlets when not being moved between locations. The inspector noted no deviations from the weld material control procedures.

- c. The inspector observed completed welds on containment spray additive tank TEN01. Welds on pipe nozzles to the level transmitter and level gauge piping showed apparent undercutting, arc strikes in vicinity of the welds, knicks and dents in nozzle pipe wall with no indication that the violation of minimum wall thickness had been considered, apparent inadequate weld size and profile on some fillet welds. Subsequent to the inspector's observation the licensee's contractor issued Deficiency Report No. 25D-8403-MW on the nonconforming welds on this tank. The inspector was informed that similar weld nonconformances had been identified on other tanks supplied by the same vendor, that the vendor was scheduled to return to the site to effect the necessary rework and that this tank would be included in the vendor's rework. The inspector identified the nonconforming welds on tank TEN01 as an item of noncompliance with 10 CFR 50, Appendix B, Criterion X. The inspector informed the licensee that a written reply to this noncompliance is not necessary because corrective action has been initiated which will result in a visit to the site by the vendor to repair or rework all tanks. (50-483/82-13-02)
- d. The inspector observed welding and completed pipe support installation in the control building including the radiological protection laboratory area. In the 1974 elevation of the control building it was noted that a laboratory area floor drain was installed over the safety related electrical cable to Essential Service Water Valve EF-HV-37. The drain pipe was supported by a section of steel angle beam welded to support LA04-H001. The drain pipe is not secured to the angle by bolting, welding or other methods. There are no indications that this installation was designed, fabricated, installed or inspected according to approved procedures for Seismic II/I installations. The inspector informed the licensee that the failure to follow approved procedures for Seismic II/I installations was an item of noncompliance to the requirements of 10 CFR 50, Appendix B, Criterion V. (50-483/82-13-03)

6. Storage Areas

The inspector toured storage and laydown areas used for construction materials. The areas were acceptably clean. Material was segregated, all material was placed on dunnage off the ground. Access to storage areas is restricted to authorized personnel only.

7. Preoperational Testing

The inspector observed portions of the Spent Suel Pool Bridge Crane Preoperational Test No. CS-03KE03, Fuel Pool Cooling Test No. CS-03EC01 and New Fuel Elevator CS-03KE02. None of these tests were completed and accepted at the end of this report period.

The inspector reviewed preoperational test No. CS-04QD01-6, "Emergency Lighting System Fuel Building."

8. Caseload Forecast Panel

The inspector assisted in the review of construction progress by the NRR Caseload Forecast Panel on September 15-16, 1982. Results of the review and the panel's estimate of construction completion will be published in the report issued by NRR Licensing Branch.

9. Exit Interview

The inspector met with licensee representatives (denoted under Persons Contacted) at intervals during the report period. The inspector summarized the scope and findings of the inspection. The licensee reported the findings as reported herein.