

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-483/82-15(DPRP)

Docket No. 50-483

License No. CPPR-139

Licensee: Union Electric Company
P. O. Box 149
St. Louis, MO 63166

Facility Name: Callaway Plant, Unit 1

Inspection At: Callaway Site, Reform, MO

Inspection Conducted: October 1-31, 1982

Inspector: *J. E. Konklein*
J. H. Neisler

11/26/82.

Approved By: *J. E. Konklein*
J. E. Konklein, Chief
Projects Section 1A

11/26/82.

Inspection Summary

Inspection on October 1-31, 1982 (Report No. 50-483/82-15(DPRP))

Areas Inspected: Inspection by NRC Resident Inspector of safety related construction and preoperational testing activities, including piping and electrical supports, HVAC installation, electrical and instrumentation cable installation and terminations, and licensee follow-up actions relative to IE Bulletins and Circulars. The inspection involved a total of 139 inspector-hours on site by one NRC inspector, including 11 inspector-hours on site during off shifts.

Results: One item of noncompliance was identified, (inadequate design of Class IE conduit supports).

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DETAILS

1. Persons Contacted

Union Electric Company (UE)

*W. H. Weber, Manager, Nuclear Construction
R. L. Powers, Superintendent, Quality Assurance
*J. V. Laxx, Supervising Engineer, Startup QA
*J. R. Veatch, Supervising Engineer, Construction QA
J. Davis, Supervising Engineer, Operations QA
*J. A. McGraw, Supervising Engineer, Nuclear Construction
*S. M. Hogan, QA Engineer
*C. J. Plows, QA Consultant
*T. Callahan, Assistant Engineer
*J. Herron, Nuclear Engineering Site Liaison
*R. R. Williams, Startup TPSG Supervisor
*E. Lazarowitz, QA Consultant
*A. D. Sassani, QA Consultant
*M. Pechar, QA Consultant
*H. W. Millwood, QA Consultant
L. H. Konuckel, QA Engineer
J. Marden, QA Consultant
B. Stanfield, QA Engineer
D. Brady, Pre-op/Startup

Daniel International Corporation (DIC)

*J. J. Long, Project Welding Manager
*W. J. Petrie, Project QA Engineer
*J. Weaver, Project Electrical Manager (Delcon)
*M. S. Stokes, Project Electrical Engineer

During the inspection period, the inspector contacted other persons in the crafts, engineering, inspection, and management areas.

*Denotes those persons attending one or more exit interviews.

2. Inspection and Enforcement Bulletins (IEB)

The following Inspection and Enforcement Bulletins are applicable to boiling water reactors only and since the Callaway facility utilizes a pressurized water reactor, these bulletins are considered to be closed.

IEB 82-03 Stress Corrosion Cracking in Thick-Wall, Large-Diameter, Stainless Steel, Recirculation System Piping at BWR Plants

IEB 82-03 - Rev. 1 Stress Corrosion Cracking in Thick-Wall, Large-Diameter, Stainless Steel, Recirculation System Piping at BWR Plants

The following bulletins are applicable only to facilities receiving piping from a specific vendor. Since Callaway did not receive any of the piping which is the subject of the bulletins, these bulletins are considered to be closed.

IEB 82-01 Alteration of Radiographs of Welds in Piping Subassemblies

IEB 82-01 - Rev. 1 Alteration of Radiographs of Welds in Piping Subassemblies

3. Inspection and Enforcement Circulars (IEC)

For the Inspection and Enforcement Circulars listed below, the inspector verified that the circular was received by the licensee management, that, for each circular a review for applicability was performed, and that, if the circular was applicable to the Callaway facility, appropriate actions were initiated or planned to include the provisions of the circulars into plant activities. These circulars are considered to be closed.

IEC 77-01 Malfunctions of Limitorque Valve Operators

IEC 77-03 Fire Inside a Motor Control Center

IEC 77-13 Reactor Safety Signals Negated During Testing

IEC 78-04 Installation Errors That Could Prevent Closing of Fire Doors

IEC 78-08 Environmental Qualification of Safety Related Electrical Equipment at Nuclear Power Plants

IEC 78-13 Inoperability of Service Water Pumps

IEC 78-15 Tilting Disk Check Valves Fail to Close with Gravity in Vertical Position

IEC 78-16 Limitorque Valve Actuators

IEC 79-02 Failure of 120 Volt Vital AC Power Supplies

IEC 79-04 Loose Locking Nut on Limitorque Valve Operator

IEC 79-10 Pipefittings Manufactured from Unacceptable Material

IEC 79-13 Replacement of Diesel Fire Pump Starting Contactors

IEC 79-19 Loose Locking Devices on Ingersoll-Rand Pump Impellers

4. Electrical

The inspector examined electrical installation activities involving in process and completed work, including electrical equipment, cable race-

ways and supports, and cable installation and inspection activities in the reactor building, auxiliary building, and diesel and control building.

Included in the inspection were cables and raceways in the auxiliary building, conduit in the auxiliary feedwater pump rooms, containment electrical penetrations work and measures for providing protection for the penetrations, and electrical installation activities, both on-going and completed, in the reactor building.

The inspector observed cable termination activities at panels in the control room. No deficiencies were noted in termination equipment, calibrations or personnel qualifications. Workmanship was acceptable and quality control inspections were being performed according to procedure.

The inspector examined in-process and completed installation in the emergency diesel generator rooms. Included in the inspection of electrical activities in this area were cable separation, terminations within cabinets, welding of raceway supports and adequacy of raceway supports.

The inspector observed that two conduits identified as safety related, Class IE, were mounted on a nonseismic Category 1 platform at the diesel end of the diesel generator set in each of the diesel generator rooms. The inspector informed the licensee that the installation of safety related equipment on nonseismic Category 1 supports was an item of non-compliance with 10 CFR 50, Appendix B, Criterion III. (50-483/82-15-01)

5. Heating, Ventilation and Air Conditioning

The inspector examined safety related heating, ventilation and air conditioning (HVAC) installations in the auxiliary building and the reactor containment building. The inspection included welding of duct supports, ducts, embed attachments, damper and valve attachments, fan and motor installation, QC inspection activities, and repair of galvanizing in areas subjected to field welding.

No items of noncompliance or deviations were identified.

6. Piping and Welding

The inspector observed piping and welding activities on safety related systems in all areas of the plant. The inspection included observation of work in progress and completed installation of containment piping penetrations, main steam piping within containment, residual heat removal piping and components, auxiliary feedwater valves and piping, and steam generator blowdown piping.

The qualifications of persons performing welding were current with regard to the procedure being used. QC inspections and liquid penetrant examinations observed were performed according to approved procedures. Welding material control was according to procedure, low hydrogen weld electrodes were issued from calibrated, heated ovens and were kept in heated rod caddies until used.

No items of noncompliance or deviations were identified.

7. Hangers, Supports and Restraints

The inspector observed installation and inspection activities in the reactor building, auxiliary building, and the control and diesel generator building. The inspection included observation of installation activities involving main steam line restraints, pipe support installation for the essential service water system and the feedwater and auxiliary feedwater systems, and residual in situ removal system pipe supports. Support location and verification, welding, weld material control, QC inspection, and NDE activities were being performed according to approved procedures for those piping support installation activities observed by the inspector. Deficiencies had been identified and reports initiated on all questionable welding examined by the inspector except support EF01-R005/312Q, which had apparent undercut. The weld was reinspected and a deficiency report issued to effect repair. The inspector determined that this corrective action was acceptable and has no further questions regarding this one weld.

No items of noncompliance or deviations were identified.

8. Exit Interviews

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 acknowledged the findings as reported herein.