

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-483/84-39(DRS)

Docket No. 50-483

License No. NFP-25

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

Facility Name: Callaway, Unit 1

Inspection At: Callaway Site, Callaway County, MO

Inspection Conducted: August 9-10, 1984

R. Mendez
Inspector: R. Mendez

8-29-84

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

8-29-84

Inspection Summary

Inspection on August 9-10, 1984 (Report No. 50-483/84-39 (DRS))

Areas Inspected: Licensee action on previously identified items and review of 50.55(e) items. The inspection involved a total of 10 inspector-hours onsite by one NRC inspector.

Results: No items of noncompliance or deviations were identified.

8409180466 840830
PDR ADOCK 05000483
Q PDR

DETAILS

1. Persons Contacted

Union Electric Company (UE)

- *M. I. Doyne, General Superintendent
- *J. W. Mullwood, QA Consultant
- C. J. Plows, QA Consultant

Daniel International Corporation

- *W. A. Norton, QA Engineer

The inspector also contacted and interviewed other licensee and contractor personnel, including crafts persons, technical and engineering staff members.

*Denotes those attending the exit interview on August 10, 1984.

2. Licensee Action on Previously Identified Items

(Closed) Noncompliance (483/84-26-01): It was previously identified that diesel generator control panels KJ 121 and KJ 122 were not installed in accordance with seismic tests. Mounting details on the seismic test drawings showed the configuration of the panels to be significantly different than the as-built installation. An evaluation was performed by Bechtel to compare the effects of the seismic testing with the installed configuration of the panels. The re-evaluation results indicate that the panels as installed are seismically qualified. This determination had not been made prior to the installation of the panels. This item is closed.

(Closed) Unresolved Item (483/84-26-02): It was previously identified that the snug tight method used in the installation of electrical equipment was not defined for Class 1E installations. The electrical contractor's specification and procedures refer to the snug tight method since torquing was not defined for this Class 1E equipment. It was determined, during this inspection, that QC verification of bolt installation was previously addressed. This was documented on a June 22, 1983 letter which states that interviews were conducted with the electrical contractor's QC inspectors to determine whether they were verifying bolt torque values. The results of the interviews was that the QC inspectors were verifying torquing of bolts used in electrical equipment installation. This item is closed.

3. Licensee Action on 10 CFR 50-55(e) Items

(Open) 10 CFR 50.55(e) (483/83-21-EE): "Cracked Limit Switch Rotors on Limitorque Valve Controllers." This deficiency involved cracks in certain limit switch rotors used in limitorque valve actuators. Preliminary investigations indicated that the problem was the result of excessive shrinkage in the rotor material (Melamine and Phenolic) used in

the fabrication process. The planned corrective action is to replace the Melamine and Phenolic rotors with rotors manufactured from Filerite, which appeared less susceptible to cracking. Pending replacement of the rotors this item remains open.

(Open) 10 CFR 50.55(e) (483/84-11-EE): Deficiencies were identified involving degraded insulation on field cabling used to connect Valcor solenoid valves. The wiring used to connect the valves was not qualified to the environment in which it was to operate (for both normal and accident conditions) and did not meet specification requirements. It was determined that the ambient temperature inside the valve body can approach 250-280 °F when the valve is energized for an extended period of time. The incoming field cable used to connect the valves into the plant control system, had an insulation temperature rating of 194 °F. A total of thirty-seven Class 1E valves supplied by Valcor were affected by this deficiency. The field wiring for twenty-nine of the valves have been replaced with wiring having a qualification temperature of 392 °F rated insulation. The remaining eight valves will be reworked by the first re-fueling outage. This item remains open.

(Open) 10 CFR 55.55(e) (483/84-16-EE): "Limitorque Operators - Sheared Pinion Keys". On May 9, 1984, a potential for the valve operator pinion gear key to fail because of use of improper material was identified. The problem was specific to motors which develop torques of 150 ft.-lbs. or greater. The licensee determined that Limitorque models SBO-3, SMB-4 and SMB-5 operators which develop torques of 150 ft. lbs. were used in Standard Nuclear Unit Power Plants (SNUPPS) units. The supplier was unable to determine from their records which of the operators contained gear keys manufactured from the incorrect materials. However, the licensee decided to replace the motor pinion gear keys with keys manufactured from the correct 4140 steel. The motor operated valves were tested and no subsequent failures related to sheared pinion keys were identified at the plant. However, on June 1, 1984 SNUPPS identified problems with pinion keys with Limitorque Model SB-2-80. Pending final resolution of the pinion gear key failures on Model SB-2-80, this item remains open.

(Open) 10 CFR 55.55(e) (483/84-17-EE): "Indeterminate Status of Terminal Blocks in Limitorque Actuators". The licensee identified two types of terminal blocks, Kulka K 622 and Buchanan 0824 for which no qualification documentation existed. These terminal blocks were being used in Limitorque actuators. The licensee chose to replace the terminal blocks rather than to attempt to qualify those which had no quality documentation. Work requests were issued to implement replacement of the terminal blocks. All the terminal blocks in the valves supplied by Westinghouse have been replaced with qualified terminal blocks. Terminal blocks for the Bechtel procured valves have not been changed. This item remains open.

4. Exit Meeting

The inspectors met with licensee representatives (denoted under Persons Contacted) on August 10, 1984. The inspectors summarized the scope of the inspection. The licensee representatives acknowledged the findings reported in previous paragraphs.