U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 50-483/81-02 License No. CPPR-139

Docket No. 50-483

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

Facility: Callaway, Unit 1

Inspection At: Callaway Site, Callaway County, MO

Inspection Conducted: January 5-30, 1981

Inspector: W. A. Hansen 2-5-81

Approved By: R. C. Knop RC Knop 2-9-81
Projects Section 1

Inspection Summary

Inspection on January 5-30, 1981 (Report No. 50-483/81-02)
Areas Inspected: Routine inspection by the IE Regional Resident Inspector (RI) of safety-related construction activities including protection of the reactor vessel and other components of the nuclear steam system supplier; (NSSS), work on the core internal bolting locking devices; material lay down and storage areas; electrical work; welding of safety related piping systems; nondestructive examination; weld rod control; drawing control; and a concrete pour. This inspection involved 76 inspector hours by one NRC inspector.
Results: Of the areas inspected one item of noncompliance was identified. 10 CFR 50, Appendix B, Criteria V was violated in the electrical area, in that a procedure for one aspect of work was not provided and an existing procedural requirement was not followed.

DETAILS

Persons Contacted

Union Electric Company (UE)

*W. H. Weber, Manager Nuclear Construction
*M. E. Doyne, General Superintendent, Callaway Construction
*R. L. Powers, Superintendent of Site Quality Assurance
*J. Laux, Supervisory Engineer Quality Assurance Construction
C. J. Plows, Quality Assurance Consultant
*S. M. Hogan, Assistant Quality Assurance Engineer

Daniel International Corporation (Daniel)

*H. J. Sturr, Project Manager
*G. M. Stevens, Construction Manager
*A. D. Arnold, Project Quality Manager
*W. L. Saylor, Assistant Project Electrical Engineer

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

*Denotes those attending at least one of the exit meetings.

Licensee Action on Previous Inspection Findings

(Closed) Noncompliance (483/80-03-01) and Noncompliance (483/80-20-01) Welding rod control has improved with the actions taken as a result of the items of noncompliance. These actions included (1) training sessions for welders, (2) surveillance by superintendents, (3) subcontractor welder control, (4) increased surveillance by Inspectors and Engineering Organizations. Based on the actions taken and inspections performed of the work areas, this item is closed.

(Closed) Noncompliance (483/80-20-02) Identified that the control of tools used on stainless steel pipe, plate and shapes was not performed as required by procedures. Action was taken to inventory and correctly mark tools. Based on the actions completed and follow-up inspections performed this item is closed.

(Closed) Unresolved Item (483/80-20-03) Identified that cadwelding sleeves with vent holes for use in the horizontal position were installed in the vertical position. ERICO Products Company was contacted. The company verified that the sleeves used in either position are the same except for the vent holes. The company verified that the methods used to plug the vent holes when used in the vertical position were satisfactory. Based on the information from the company, Daniel International Work Procedure WP-118 was changed to define how to use cadweld sleeves in alternate positions. Based on the information provided, the item is closed.

Functional or Program Areas Inspected

1. Plant Tours

One or more plant areas were toured several times during the reporting period to observe general construction practices; area cleanliness and storage condition of equipment, piping, and electrical cable.

2. Drawing Control

During the inspection period, six drawings were checked in the Auxiliary Building to determine if drawings of the latest revision were being used in the construction effort. Five drawings in the electrical area and one drawing in the heating ventilation and air conditioning area of work were checked. It was found that all drawings were of the correct revision and change notices when issued were attached to the drawing.

No items of noncompliance or deviations were identified.

3. Fabrications of Safety Related Piping Systems

a. During the reporting period, the inspector observed work including handling, protection, inspection, and welding of safety related piping systems.

(1) Feed Water System Welds

2AE-05-F037A

(2) Fuel Pool Cooling and Clean-up System Welds

2EC 02 FW016A
2EC 02 FW018A

(3) Residual Heat Removal System Welds

2EJ 02 FW90
2EJ 04 F022A

(4) Containment Cooling System Welds

2GN C1 FW4

(6) Essential Service Water System Welds

2EF 05 Fo45B

(7) High Pressure Coolant Injection System Welds

2EM 01 F011B

(8) Steam Generator Blowdown System Welds

BM 03 FW045A

For each of these welds one or more of the following fabrication activities was observed. Handling and protection of piping and partially completed welds was satisfactory. Purge gas was correctly used. The weld area was free of any grease or particles. The joint fit-up dimensions were within procedural requirements and the welders were certified as qualified for the procedure specified to be used for welding the pipe joint.

No items of noncompliance or deviations were identified.

4. Piping System Nondestructive Testing

a. During the reporting period the inspector observed nondestructive testing (Liquid Penetrant) of weld 2GN 01 FW13 in the Containment Cooling System.

(1) The surface of the weld was satisfactory for the performance of liquid penetrant examination.

(2) The nondestructive test assigned met the code requirements.

(3) The technique was satisfactory and was performed by a qualified inspector.

No items of noncompliance or deviations were identified.

5. Nuclear Steam System Supplier (NSSS) Equipment

a. The inspector observed the inplace storage and protection of NSSS components and piping. The piping assemblies, reactor vessel internals, and reactor vessel head is properly stored and protected.

b. The inspector observed the welding of a fillet welded locking device for bolts in the upper core internals. The welder was certified qualified for the weld performed.

No items of noncompliance or deviations were identified.

6. Electrical Cable Installation

a. During the reporting period, the inspector observed work including installation, handling, and protection of electrical cable. Specifica[illegible] associated with this electrical cable pull was obser

(1) Cable Pull 2238

Cable 1GKI28AA

For the pull the following activity was observed: (1) a pull card was in use, (2) the cable was identified, (3) Quality Control inspections were performed and Quality Control personnel witnessed the pull.

b. During the reporting period, the inspector observed work associated with the following cable terminations:

1NBB02AC
1NBB02AB
1NBB02AE
4NGB10AB
4NEB02AK
4NEB02AT
4NEK13AF
1GKR28CA

The following conditions were observed: (1) the cables were identified, (2) a work assignment sheet was in use, (3) crimping tools were calibrated, (4) the person assigned was certified qual[illegible]ied to perform terminations.

c. During a review of Deficiency Reports it was noticed that Bechtel Drawing E-01013, Rev. 4 was being referenced as instructions for repair of electrical cable jacket damage. Although the procedure provided by the drawing appears to be satisfactory, there is no technical evidence to indicate that a cable jacket repaired using the procedure will be returned to its original design characteristics or that qualification testing has been performed. Pending review of Bechtel data and/or test results this will be an unresolved item. (Item No. 483/81-02-01)

Regarding the cable jacket repairs, there is also no control to ensure that the proper quality assurance is performed and documented during the repair. There is no procedure to define the craft and quality control personel responsibility, and to document the inspections performed.

d. During tours of the Control and Auxiliary Buildings several areas were identified to the LIcensee where safety related cable in cable trays had construction materials and debrie placed on them. This condition, and areas where violations existed, have been discussed during previous exit meetings. This is in violation of Daniel International Work Procedure WP-303 "Installation of Wire and Cable".

e. Paragraphs c and d above are examples of inadequate procedure and failure to follow existing procedures as required by Criterion V of 10 CFR 50, Appendix B.

This is an item of Noncompliance (Item No. 483/81-02-02)

7. Concrete Placement

a. During the reporting period, concrete placement UC510540 of the Ultimate Heat Sink Cooling Tower was observed.

For the placement the following conditions were noted.

(1) The forms were secure, leak tight, and had been wetted prior to the placement.
(2) The preplacement inspection had been completed and was in order.
(3) Quality Control inspectors were assigned to each crew in addition to those assigned to perform periodic concrete testing.
(4) Adequate numbers of crews and personnel were assigned to make the placement.
(5) The placement was satisfactory.

No items of noncompliance or deviations were identified.

8. Fluid System Penetration Installation

The inspector observed welding of penetration weld 2HD03F005. The weld area was free of foreign material and the welders were certified as qualified for the procedure specified.

No items of noncompliance or deviations were identified.

9. Welding Rod Control

During the reporting period, weld rod issue trailer, outside the Turbine Building, was toured. It was determined that (1) the records are properly kept; (2) welding materials are properly identified and segregated; (3) the temperature of the rod ovens is maintained.

No items of noncompliance or deviations were identified.

Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. One unresolved item disclosed during this inspection is discussed in paragraph 6c.

Other Activities

The inspector was interviewed by St. Louis Television Channel 5, Environmental Reporter Jennifer Blome on January 30, 1981.

Exit Meetings

The resident inspector attended a January 16, 1981 exit meeting conducted by RIII inspector C. Erb.

The inspector met with Licensee representatives (denoted under Persons Contacted) on January 16, 23, and 30, 1981. The inspector summarized the scope and findings of the inspections performed. The Licensee representatives acknowledged the findings reported in previous paragraphs.

Attachment: Preliminary
Inspection Findings