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

REGION III

Report No. 50-483/80-20

Docket No. 50-483 License No. CPPR-139

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: July 1-31, 1980

Inspector: W. A. Hansen RC Knop for 8/13/80

Approved By: R. C. Knop KC Knop 8/13/80
Projects Section 1

Inspection Summary

Inspection on July 1-31, 1980 (Report No. 50-483/80-20)
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 instrument tubes; material lay down and storage areas; electrical work; welding of reactor coolant system and safety-related fluid system piping; drawing control; welding reinforcement steel; and concrete pours. This inspection involved 112 inspector hours by one NRC Inspector.
Results: Of the areas inspected, two items of noncompliance were identified. (1) Failure to properly identify tools used during the fabrication of stainless steel piping systems (deficiency). (2) Failure to assure that corrective action is taken to preclude repetition of condition adverse to quality (infraction).

DETAILS

Person Contacted

Union Electric Company (UE)

*W. H. Weber, Manager Nuclear Construction
F. D. Fields, Quality Assurance Manager
M. E. Doyne, General Superintendent, Callaway Construction
*R. L. Powers, Site Quality Assurance Group Leader
*J. Laux, Quality Assurance Assistant Engineer
*J. R. Veatch, Quality Assurance Engineer
*S. Hogan, Quality Assurance Assistant Engineer
F. W. Godt, Quality Assurance Engineer
J. L. Marden, Quality Assurance Consultant
C. Plows, Quality Assurance Consultant

Daniel Internation Corporation (Daniel)

*H. J. Starr, Project Manager
*W. L. Sykora, Assistant Project Manager
J. A. Holland, Construction Engineering Manager
J. R. Cook, Quality Control Manager
M. Smith, Audit Response Coordinator

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

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

Functional or Program Areas Inspected

1. Plant Tours

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

Four tours were made on back shifts of work.

During tours made the week of July 21, 1980 and July 28, 1980, uncontrolled welding material was observed. Welding materials were uncontrolled in the containment, auxiliary and control buildings. In January 1980 a similar condition was observed and reported in report 483/80-03. Welding materials are to be controlled in accordance with Daniel International work procedure WP-503. Since the

noncompliance was identified in January, actions were reported to have been taken to avoid further noncompliance. The actions have not been effective. This is in noncompliance with the requirements of 10 CFR 50, Appendix B, Criterion XVI. (483/80-20-01)

Items of noncompliance or deviations are as noted above.

2. Concrete Placement

a. During the reporting period, four concrete placements were observed.

(1) Placement ZC281S01 (Exterior Dome Lift)
(2) Placement UC510W26 (Ultimate Heat Sink Cooling Tower)
(3) Placement ZC631S01 (Fuel Storage Building)
(4) Placement UC510W27 (Ultimate Heat Sink Cooling Tower)

For each of the placements listed above, some or all of the following conditions were noted.

(a) The forms were secure, leak tight, and had been wetted prior to the placement.
(b) The preplacement inspection had been completed and was in order.
(c) Quality Control inspectors were assigned to each crew in addition to those assigned to perform periodic concrete testing.
(d) Concrete testing was performed at the required frequencies.
(e) Adequate numbers of crews and personnel were assigned to make the placement.
(f) The placement was satisfactory.
(g) Curing was monitored and found to be satisfactory.
(h) The quantity and size of reinforcement was satisfactory.

No items of noncompliance or deviations were identified.

3. Fabrication of Reactor Coolant Pressure Boundary and Safety Related Piping Systems

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

((1) Reactor Coolant System Welds

2BB-01 F208
2BB-01 F206
2BB-01 F408

(2) Steam Generator Blowdown System Welds

2EM-03 FW2
2BM-03 FW3

(3) Residual Heat Removal System

2EJ-02 F053

(4) Accumulator Safety Injection System

2EP-02 F003

(5) Chemical and Volume Control System

2BG-15 FW118

(6) Fuel Pool Cooling and Clean Up System

2EC-04 @009

(7) Component Cooling Water System

2EG-03 FW45

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.

During the reporting period the inspector observed the use of brushes, grinders and files that had not been marked in accordance with Daniel International procedure WP-506 "Control of Tools Used on Stainless Steel Pipe, Plate and Shapes". This is an item of noncompliance (483/80-20-02).

Items of noncompliance or deviations are as noted above.

4. Quality Control

During the reporting period the inspector assisted a regionally based inspector in reviewing the qualification of Quality Control Inspectors performing nondestructive tests. The results of the review are contained in Report 483/80-19.

No items of noncompliance or deviations were identified.

5. Drawing Control

During the inspection period, 25 drawings were selected in the Containment Building and the Auxiliary Building to determine if drawings of the latest revision were being used in the construction effort. All drawings were found to be of the correct revision.

No items of noncompliance or deviations were identified.

6. Electrical Cable Installation

During the reporting period, the inspector observed work including installation, handling, and protection of electrical cables. Specifically, work associated with these electrical cable pulls was observed:

a. Cable Pull 1011
   Cable 4RPR 08CA

b. Cable Pull 0975
   Cable 4NKG 10DA

c. Cable Pull 0256
   Cables 4GMG 01BB
          4JEG 01BB

d. Cable Pull 1015
   Cable 1NGR 15FA

e. Cable Pull 567
   Cables 4NGR 12CA
          4PJR 11AB

f. Cable Pull 56
   Cable 1EMB 01AA

For each of the pulls some or all of the following activities were observed: (1) Pull cards were in use, (2) the cables were identified, (3) Pulling compound was used, (4) Pulling tension was monitored (5) Quality Control inspections were performed and Quality Control personnel witnessed the pull, (6) Cable previously pulled was protected.

During the reporting period on one occasion pieces of scaffold were observed to be lying on safety related cables that had previously been pulled in place. This condition was brought to the attention of the Licensee. Immediate action was taken to remove the wood pieces.

No items of noncompliance or deviations were identified.

7. 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 installation of control rod drive mechanisms:

29 (Field Weld 29)
31 (Field Weld 31)
51 (Field Weld 51)

The procedure was followed; a calibrated tongue wrench was used and the installation was monitored by Quality Control personnel.

No items of noncompliance or deviations were identified.

8. Concrete Test Cylinder Storage and Testing

The inspector observed the storage of Concrete Cylinders. The cylinders were properly marked and stored.

The testing of several cylinders was observed. Cylinders numbered: 7433, 7434, 7443, 7444, 7449, 7450, 7455, 7456, 7461, and 7462 were tested. The cylinders were properly end capped, procedures were followed during the test and the test instruments were in calibration.

No items of noncompliance or deviations were identified.

9. Reinforcement Cadwelding

The inspector observed some completed cadwelds of reinforcement bars. It was observed that cadwelds designated for use in the horizontal position were installed in the verticle position. The ERICO Products Bulletin "Cadweld Rebar Splicing" referred to in Daniel International Procedure WP-118 titled "Reinforcing Steel, Joining/Cadweld" does not provide instructions for modifying sleeves manufactured for one position to be used in an alternate position. Pending a review of the Engineering and instructions to modify and use Cadweld sleeves in alternate positions this will be an unresolved item. (Item 483/80-02-03).

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 9.

Exit Meetings

The resident inspector attended an July 18, 1980 exit meeting conducted by RIII inspectors H. Wescott, J. Schapker, K. Naidu, and R. Lee.

The inspector met with licensee representatives (denoted under Persons Contacted) on July 10, 18, 24 and 31, 1980. 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

PRELIMINARY INSPECTION FINDINGS

1. LICENSEE	2. REGIONAL OFFICE
Union Electric	III

3. DOCKET NUMBERS	4. LICENSE NUMBERS	5. DATE OF INSPECTION
50-483	CPPR-139	7-1 thru 7-10 1980

☑ 6. Within the scope of the inspection, no items of noncompliance or deviation were found.

☐ 7. The following matters are preliminary inspection findings:

☐ 8. These preliminary inspection findings will be reviewed by NRC Supervision/ Management at the Region III Office and they will correspond with you concerning any enforcement action.

William A. Hansen
Nuclear Regulatory Commission Inspector

7/10/80

1. LICENSEE	2. REGIONAL OFFICE
Union Electric Company 1901 Gratiot Street St. Louis, Missouri	Nuclear Regulatory Commission, Region III Office of Inspection and Enforcement 799 Roosevelt Road Glen Ellyn, Illinois 60137

3. DOCKET NUMBERS	4. LICENSE NUMBERS	5. DATE OF INSPECTION
50-483	CPPR-139	7-10 thru 7-18-80

☐ 6. Within the scope of the inspection, no items of noncompliance or deviation were found.

☑ 7. The following matters are preliminary inspection findings:

10 CFR 50 appendix B, Criterion and SNUPPS PSAR paragraph 17.1.5 requires that Activities affecting quality .... shall be accomplished in accordance with instructions, Procedures, ~~and~~/or Drawings.

Daniel International Work Procedure WP 506 Control of tools used on Stainless Steel Pipe, Plate and Shapes requires that Brushes, Grinders and other tools be marked with White paint when they are used on Stainless Steel.

Contrary to the above Pipe Fitters and welders were observed to be using unmarked Brushes and Grinders.

☐ 8. These preliminary inspection findings will be reviewed by NRC Supervision, Management at the Region III Office and they will correspond with you concerning any enforcement action.

Walter A Kaus

Nuclear Regulatory Commission Inspector

UNITED STATES NUCLEAR REGULATORY COMMISSION

INSPECTION & ENFORCEMENT–STATISTICAL DATA SUPPLEMENT

GENERAL INSTRUCTIONS: BLOCK A MUST BE CHECKED TO SHOW TYPE OF INFORMATION CONTAINED ON THE FORM. ONE FORM IS TO BE COMPLETED FOR EACH.
(A) ITEM OF NONCOMPLIANCE CITED,
(B) ITEM OF NONCOMPLIANCE NOT CITED, AND,
(C) DEVIATION CITED IN ENFORCEMENT CORRESPONDENCE

DOCKET NUMBER SD-483 OR LICENSE NUMBER CPPR-139 REPORT NUMBER 50-483/80-20

S 1

A–TYPE OF FINDINGS (CHECK ONE BOX ONLY)
- [✓] A NONCOMPLIANCE
- [ ] 2 B LICENSEE IDENTIFIED ITEMS
- [ ] C DEVIATION

B–SPECIFIC N/C CODE OR DEVIATION (3–7): EEB
CAUSE (8): P
PROCEDURE (9): J
SEVERITY (10): 3
FUNCTIONAL AREA (11–12):

C–MODULE NUMBER (13–19): 2550B3C

D–HOW ITEM IDENTIFIED (CHECK ONE BOX ONLY)
- [ ] L LICENSEE
- [✓] 20 I INSPECTOR
- [ ] O OTHER

E–CONSEQUENCES (CHECK ONE BOX ONLY)
- [ ] A CAUSE OR CONSTITUTED ACTUAL OCCURRENCE
- [ ] 21 P HAD POTENTIAL TO RESULT IN ACTUAL OCCURRENCE
- [✓] N DID NOT HAVE POTENTIAL TO RESULT IN ACTUAL OCCURRENCE

F–EXEMPT INFORMATION
- [ ] 22 S CHECK BOX IF EXEMPT INFORMATION IS INCLUDED IN TEXT BELOW, PER 10 CFR 2.790

G–ADDITIONAL UNITS (ENTER "M" IN FIRST BOX FOLLOWED BY OTHER UNIT NUMBERS) (23–26):

H–NONCOMPLIANCE REPETITIVE OCCURRENCE (IF FIRST OCCURRENCE ENTER "1") (27): 1

I–TEXT (ENTER UP TO 2400 CHARACTERS FOR EACH ITEM. IF THE TEXT OF THE NONCOMPLIANCE OR DEVIATION EXCEEDS THIS NUMBER, IT WILL BE NECESSARY TO PARAPHRASE)

10 CFR-50, Appendix B, Criterion 5 and SNUPPS, PSAR paragraph 17.1.5 requires that activities affecting quality - - - shall be accomplished in accordance with these instructions, procedures, or drawings.
Daniel International work procedure WP-506 "Control of tools used on stainless Steel Pipe, Plate and Shapes" requires that brushes, grinders, and other tools be marked with white paint when used to fabricate Stainless Steel.
Contrary to the above pipefitter and welder personnel were observed to be using unmarked brushes and grinders.

& E N D &

NOTE: DATA ENTRY CLERK–THE LAST LINE ENTERED MUST CONTAIN THIS INFORMATION.

(OVER)

UNITED STATES NUCLEAR REGULATORY COMMISSION

INSPECTION & ENFORCEMENT—STATISTICAL DATA SUPPLEMENT

GENERAL INSTRUCTIONS: BLOCK A MUST BE CHECKED TO SHOW TYPE OF INFORMATION CONTAINED ON THE FORM. ONE FORM IS TO BE COMPLETED FOR EACH.
(A) ITEM OF NONCOMPLIANCE CITED.
(B) ITEM OF NONCOMPLIANCE NOT CITED, AND,
(C) DEVIATION CITED IN ENFORCEMENT CORRESPONDENCE

DOCKET NUMBER 50-483 OR LICENSE NUMBER CPPR-139 REPORT NUMBER 50-483/80-20

S 1

A—TYPE OF FINDINGS (CHECK ONE BOX ONLY)
2 A [✓] NONCOMPLIANCE
B [ ] LICENSEE IDENTIFIED ITEMS
C [ ] DEVIATION

B—SPECIFIC N/C CODE OR DEVIATION (3–7): ESD
CAUSE (8): P
PROCEDURE (9): F
SEVERITY (10): 2
FUNCTIONAL AREA (11–12):

C—MODULE NUMBER (13–19): 292706C

D—HOW ITEM IDENTIFIED (CHECK ONE BOX ONLY)
L [ ] LICENSEE
20 I [✓] INSPECTOR
O [ ] OTHER

E—CONSEQUENCES (CHECK ONE BOX ONLY)
A [ ] CAUSE OR CONSTITUTED ACTUAL OCCURRENCE
21 P [ ] HAD POTENTIAL TO RESULT IN ACTUAL OCCURRENCE
N [✓] DID NOT HAVE POTENTIAL TO RESULT IN ACTUAL OCCURRENCE

F—EXEMPT INFORMATION
22 S [ ] CHECK BOX IF EXEMPT INFORMATION IS INCLUDED IN TEXT BELOW, PER 10 CFR 2.790

G—ADDITIONAL UNITS (ENTER "M" IN FIRST BOX FOLLOWED BY OTHER UNIT NUMBERS) (23–26):

H—NONCOMPLIANCE REPETITIVE OCCURRENCE (IF FIRST OCCURRENCE ENTER "1") (27): 2

I—TEXT (ENTER UP TO 2400 CHARACTERS FOR EACH ITEM. IF THE TEXT OF THE NONCOMPLIANCE OR DEVIATION EXCEEDS THIS NUMBER, IT WILL BE NECESSARY TO PARAPHRASE)

1 ... 50

(1) 10 CFR-50 Appendix B Criterion XVI and
(2) SNUPPS PSAR paragraph 17.1.16 requires
(3) that "measures shall ..... assure that
(4) the cause of the condition is determined and
(5) corrective action taken to preclude repetition ---
(6)
(7) Contrary to the above uncontrolled welding
(8) material was identified and reported in NRC
(9) report 483/80-03, this condition has not
(10) been corrected in that during the reporting
(11) period uncontrolled welding materials
(12) were again observed at many different
(13) locations.
(14)
(↓)
(48)

& E N D &

NOTE: DATA ENTRY CLERK—THE LAST LINE ENTERED MUST CONTAIN THIS INFORMATION.

1 5

(OVER)

1. LICENSEE	2. REGIONAL OFFICE
Union Electric Company 1901 Gratiot Street St. Louis, Missouri	Nuclear Regulatory Commission, Region III Office of Inspection and Enforcement 799 Roosevelt Road Glen Ellyn, Illinois 60137

3. DOCKET NUMBERS	4. LICENSE NUMBERS	5. DATE OF INSPECTION
50-483	CPPR-139	7-21 thru 7-24 1980

☑ 6. Within the scope of the inspection, no items of noncompliance or deviation were found.

☐ 7. The following matters are preliminary inspection findings:

☐ 8. These preliminary inspection findings will be reviewed by NRC Supervision/ Management at the Region III Office and they will correspond with you concerning any enforcement action.

W. L. Axelson

Nuclear Regulatory Commission Inspector

PRELIMINARY INSPECTION FINDINGS

1. LICENSEE	2. REGIONAL OFFICE
Union Electric Company 1901 Gratiot Street St. Louis, Missouri	Nuclear Regulatory Commission, Region III Office of Inspection and Enforcement 799 Roosevelt Road Glen Ellyn, Illinois 60137

3. DOCKET NUMBERS	4. LICENSE NUMBERS	5. DATE OF INSPECTION
50-483	CPPR-139	7-28 thru 7-30, 1980

☐ 6. Within the scope of the inspection, no items of noncompliance or deviation were found.

☑ 7. The following matters are preliminary inspection findings:

10 CFR-50 Appendix B, Criterion XVI and SNAPS PSAR paragraph 17.1.16 requires that "Measures shall ..... assure that the cause of the condition is determined and corrective action taken to preclude repetition." ~~Had~~

Contrary to the above uncontrolled welding material was ~~reported in Report 483/80-03~~ identified and reported in NRC report 483/80-03, this condition has not been corrected in that uncontrolled welding materials were again observed at many different locations. ~~during~~

☑ 8. These preliminary inspection findings will be reviewed by NRC Supervision/ Management at the Region III Office and they will correspond with you concerning any enforcement action.

W. L. Hansen

Nuclear Regulatory Commission Inspector