

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

REGION III

Report No. 50-483/78-09

Docket No. 50-483

License No. CPPR-139

Licensee: 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 28-30, 1978

Inspectors: *E. R. Schweibinz*  
E. R. Schweibinz

10-26-78

*for E. R. Schweibinz*  
for C. R. Oberg  
(Region IV)

10-26-78

Approved By: *D. W. Hayes*  
D. W. Hayes, Chief  
Projects Section

10/27/78

Inspection Summary

Inspection on August 28-30, 1978 (Report No. 50-483/78-09)

Areas Inspected: Licensee action on previous inspection findings; site tour to review construction status; bent studs on embedded plates test; training program procedures; QA audits on training; and implementation of training program. The inspection involved a total of 36 inspector-hours onsite by two NRC inspectors.

Results: No items of noncompliance or deviations were identified.

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## DETAILS

### Persons Contacted

#### Union Electric Company (UE)

- \*W. H. Weber, Manager, Nuclear Construction
- \*M. I. Doyne, General Superintendent, Callaway Construction
- \*R. L. Powers, Site Quality Assurance Group Leader
- \*S. M. Hogan, Quality Assurance Assistant Engineer
- \*J. V. Laux, Quality Assurance Assistant Engineer

#### Daniel International (Daniel)

- \*H. J. Starr, Project Manager
- \*J. A. Holland, Project Quality Assurance Manager
- \*W. G. Westhoff, Quality Control Manager
- \*W. L. Sykora, Assistant Project Manager
- \*L. R. Smith
- \*J. Kaelin, Project Audit Response Coordinator
  - T. C. Smith, Assistant to the Project Manager
  - L. L. Strickland, Manager, Document Control
  - T. J. Butler, Manager, Subcontracts
  - D. C. Wilson, QC Discipline Engineer, Civil
  - R. B. Collins, Training Coordinator
  - J. P. LaCarter, Lead Training QC Inspector
  - P. Ladnier, Personnel

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

\*Denotes those attending the exit meeting.

#### Licensee Action on Previous Inspection Findings

(Closed) Noncompliance (50-483/77-06-02, 50-483/77-07, 50-483/77-09): Failure to provide an adequate material control report (MCR) for receipt inspection of fuel transfer tube sleeve. Procedure AP-IV-01, Material Control Functions, has been revised to clarify the preparation and use of MCRs. Complete receipt inspection of the correct material for the fuel transfer tube sleeve was verified. This item is closed.

(Closed) Noncompliance (50-483/78-04-01): Failure to repair an embedment in accordance with documented procedures. NCR 2-2736-C-A and NCR 2-3419-C-A were reviewed and the disposition of the latter NCR was found to be acceptable. The latter NCR superceded the former NCR. Memo CM-770

dated July 14, 1978 and memo CM-789 dated July 27, 1978 to the iron worker general foreman/foreman (control building) from the construction manager were both reviewed and found to be acceptable. Discussions with the QC manager and review of meeting notes of and April 27, 1978 meeting between QA/QC personnel and the civil QC inspector (welding) that was involved in the above item of noncompliance indicate that the QC inspector has been made aware of the importance of his actions. This item is closed.

(Closed) Unresolved Item (50-483/78-07-06): Method used by DIC welding QC to assure that 10% of structural welds are examined by MT as required by drawing notation. Review of memo PQWP-288 dated August 8, 1978 on the above subject by the RIII inspector who originated this item found the method used by Daniel welding QC to be acceptable. This item is closed.

(Open) Noncompliance (50-483/77-05-02, 50-483/77-07, 50-483/77-09, 50-483/78-02): Reinspection of safety related embedments per AWS D1.1-75 requirements. NCR 1942 was found to be non-Q and voided on February 1, 1978. NCR 2385 was dispositioned on April 14, 1978. NCR's 1941, 2369, 2384, and 2386 were dispositioned as closed via a memorandum dated June 12, 1978 from the manager of Nuclear Engineering, Union Electric Company. This was based on the report submitted to RIII dated March 10, 1978 which is currently under evaluation by IE Headquarters. NCR's 2023 and 2383 remain open as they have not yet been dispositioned. This item will remain open until all repairs are completed and subject to the evaluation of the March 10, 1978 report.

#### Functional or Program Areas Inspected

Details of functional or program areas inspected are documented in Sections I and II as follows:

SECTION I

Prepared by E. R. Schweibinz

Reviewed by D. W. Hayes, Chief  
Projects Section

1. Site Tour to Review Construction Status

An extended site tour was conducted to review construction status for the purpose of planning future inspections.

2. Test Program to Evaluate Strength of Embedded Plates with Bent Studs

A test program to evaluate the strength of embedded plates with bent studs was being conducted by Bechtel Power Corporation at the site on August 28 and 29, 1978. The RIII inspector observed the initial pulling of the first embedded plate on August 28, 1978. Pulling of an additional embedded plate was observed on August 29, 1978. The physical test program is part of an analysis of the acceptability of embeds which were installed in the plant with studs bent more than  $15^{\circ}$  in order to fit the embeds between rebar in some of the complex structures. This analysis is being performed as part of the evaluation of the significant deficiency regarding the excessive bending of studs which was reported to NRC RIII on April 4, 1978. (483/78-09-01)

No items of noncompliance or deviations were identified.

## SECTION II

Prepared by C. R. Oberg (Region IV)

Reviewed by W. A. Crossman, Chief  
Projects Section (Region IV)

### Review of Daniel International (DI) Indoctrination and Training Program for Quality Assurance Matters

#### 1. Review of Training Program Procedures

The IE inspector reviewed the DI construction procedures listed below to determine conformance to the requirements of 10 CFR 50, Appendix B, Criterion II, Quality Assurance Program; PSAR Section 17.B.1.1.4, "Project Management"; PSAR Section 17.B.1.2, "Quality Assurance Program"; ANSI N45.2.6, "Qualifications of Inspection, Examination, and Testing Personnel for the Construction Phase of Nuclear Power Plants"; SNUPPS Standard Quality Assurance Manual, Section B-7, "Indoctrination and Training," Rev. 4 (February 6, 1976); and ANSI N45.2.12, "Requirements for Auditing of QA Programs for Nuclear Power Plants."

- a. AP-II-05, "Orientation and Indoctrination of Personnel," Rev. 4, (May 15, 1978).
- b. AP-III-01, "QA Personnel Selection, Indoctrination and Training," Rev. 1 (August 9, 1978).
- c. AP-VII-01, "QA Personnel Selection, Training and Indoctrination," Rev. 2 (May 24, 1978).
- d. NDE 7.1Q, "Certification of NDE Personnel," Rev. 1 (May 19, 1978).
- e. Daniel Interim Instruction #28, "Employee Training Program," Rev. 1 (August 2, 1978). Note: This instruction was subsequently issued (with changes) and AP-XIII-07, Rev. 0 (September 6, 1978) on August 30, 1978. This new procedure was not reviewed by the inspector.

No items of noncompliance or deviations were identified.

#### 2. Review of QA Audit Reports on Training

The IE Inspector reviewed the following QA audit reports as they pertained to the Daniel Training Program:

- a. Union Electric Audit Report for January 4-9, 1978
- b. Daniel Callaway QA reports (QAR)
  - 76-01-01 (January 30, 1976)
  - 77-01-01 (February 3, 1977)
  - 77-05-01 (June 3, 1977)
  - 77-09-01 (October 10, 1977)
- c. Daniel Corporate QA Audit on Project Training, October 4-6, 1977
- d. On Site Audit Prior to ASME Survey, April 10, 1978

No items of noncompliance or deviations were identified.

3. Implementation of Training Program

The IE inspector held discussions with responsible Daniel personnel regarding the QA training program implementation, reviewed records documenting past training efforts and observed the QA indoctrination program. The following was determined:

- a. Basic QA orientation is given to each employee within one week of reporting for work. This is done as part of a slide presentation on the Callaway site.
- b. Records of QA orientation and subsequent training are maintained as required by training procedures in personnel files.
- c. Training on QA requirements by department managers is accomplished as required by procedures.
- d. Training, experience, and qualification records of QA personnel are maintained as required by procedures.
- e. Training, experience and qualification records of QA personnel are maintained as required by procedures.
- f. Audits of the training program have been conducted as required. Deficient items identified during the audits have been or are being corrected in a timely manner.

No items of noncompliance or deviations were identified.

4. Conclusions

The IE inspector concluded that the QA/QC training program meets the requirements of the NRC and PSAR commitments in that:

- a. Indoctrination and training in QA/QC matters are given to personnel involved in quality activities.
- b. Records are maintained for indoctrination and training.
- c. The training program keeps personnel up to date.
- d. Special instruction and on the job training is provided as needed.
- e. Audits are conducted as required.

Exit Meeting

The inspectors met with site staff representatives (denoted in the Persons Contacted paragraph) at the conclusion of the inspection on August 30, 1978. The inspector summarized the scope and findings of the inspection.