

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-331/87012(DRS)

Docket No. 50-331

License No. DPR-49

Licensee: Iowa Electric Light and Power Company
Security Building, P. O. Box 357
Cedar Rapids, IA 52406

Facility Name: Duane Arnold Energy Center

Inspection At: Palo, Iowa

Inspection Conducted: April 13-16, 1987

Inspectors:

F. J. Jablonski for
H. A. Walker

4-24-87
Date

F. J. Jablonski for
R. N. Sutphin

4-24-87
Date

Approved By:

F. J. Jablonski
F. J. Jablonski, Chief
Quality Assurance Program Section

4-24-87
Date

Inspection Summary

Inspection on April 13-16, 1987 (Report No. 50-331/87012(DRS))

Areas Inspected: Announced inspection by two regional inspectors of procurement control activities. This inspection was conducted per NRC inspection procedures 30703 and 38701.

Results: Three violations were identified (failure to properly qualify supplier, Paragraph 3.A(1); failure to provide 10 CFR 21 notification, Paragraph 3.A(2); failure to perform supplier audits, Paragraph 3.B).

8704300432 870424
PDR ADOCK 05000331
Q PDR

DETAILS

1. Persons Contacted

Iowa Electric Light and Power Company

- *R. Essig, Supervising QA Engineer
- *R. Hannen, Assistant Plant Manager - Operations
- *C. Hill, Senior QA Engineer
- *E. Matthews, QA Manager
- *R. McCracken, QC Supervisor
- *D. Mineck, Plant Superintendent
- *J. Probst, Technical Support Engineer
- *R. Salmon, Technical Services Superintendent
- *J. Thorsteinson, Technical Support Supervisor
- *D. Wilson, Manager Nuclear Licensing

Janda Electric Motor Services

L. Janda, Owner and Manager

*Indicates those attending the exit meeting at the Duane Arnold Energy Center on April 16, 1987.

Other individuals were contacted as a matter of course during the inspection.

2. April 9, 1987, Meeting at Region III between Licensee Personnel and NRC Staff

On Thursday, April 9, 1987, at 10:00 a.m., Mr. D. Mineck and others of Iowa Electric Light and Power Co. (IE) met with Mr. W. G. Guldemon and others of the NRC staff at the NRC R-III office in Glen Ellyn, Illinois, to review IE procurement commitments and activities that established the background and guidelines for subcontracting of electric motor repair services.

Attending for DAEC were:

- D. L. Mineck, Plant Superintendent
- R. F. Salmon, Technical Support Superintendent
- R. D. Essig, Supervisory QA Engineer
- B. C. Klotz, QA Engineer
- N. Peterson, Licensing Engineer

Attending for NRC were:

- W. G. Guldemon, Branch Chief, DRP
- I. N. Jackiw, Section Chief, DRP
- F. J. Jablonski, Section Chief, DRS
- R. N. Sutphin, Reactor Inspector, DRS
- J. S. Wiebe, SRI, DAEC (By phone)

IE personnel presented a review of the Duane Arnold Energy Center (DAEC) QA Program and other programmatic commitments relating to procurement policies and procedures, particularly applied to electric motor repair services at a local motor repair shop. A discussion followed and the NRC decided that a special inspection would be conducted at the DAEC site by two NRC regional inspectors during the week of April 12-16, 1987.

3. Areas Inspected

This inspection was conducted to determine if procurement practices were in compliance with regulatory requirements and operational QA program commitments. Special emphasis was placed on procurements to and work performed by Janda Electric Motor Services. The inspection was performed by reviewing applicable procedures and records, conducting personnel interviews and observing work activities. The inspection also included a tour of a local suppliers facility. Inspection results are documented in the following sections of this report.

a. Procurement Control

The inspectors reviewed the methods used by the licensee to evaluate and qualify suppliers, to assess the effectiveness of suppliers quality and for inspecting and accepting supplied materials.

- (1) In reviewing licensee methods for evaluating and qualifying suppliers the following documents were reviewed.
 - (a) Quality Assurance Procedure No. 1104.3, "Vendor Evaluation," Revision 3.
 - (b) Nuclear Generation Division Procedure No. 104.3, "Nuclear Approved Vendors List," Revision 2 with change notice "A".
 - (c) "Iowa Electric Vendor Listing" issued April 10, 1987.
(Note: The title is not consistent with the procedure in item (b).

The procedures noted in (a) and (b) appeared to be acceptable as written. In reviewing the IE Vendor Listing the inspector noted that several suppliers, including Janda Electric, were on the list without an approved QA program. Paragraph 3.2.3 of ANSI N45.2.13 and Criterion IV of 10 CFR 50, Appendix B require suppliers to have a QA program that addresses areas applicable to the work performed. The inspector noted that several purchase orders to Janda Electric, including PO S-29850 and PO S-30187, required that work be performed under the IE approved QA program. It was evident that the controlling procedures were being implemented contrary to ANSI N45.2.13 and Appendix B. Failure to require an approved QA program consistent with applicable criteria of 10 CFR 50, Appendix B was considered a violation of Criterion IV of 10 CFR 50, Appendix B (331/87012-01).

(2) The inspectors reviewed safety related purchase orders (POs) and respective receiving inspection packages issued to Janda Electric since 1983. The POs included:

- ° PO No. 009190 for rewinding motor for MOV MO-2401, completed 10/14/83.
 - ° PO No. 009880 for rewinding RCIC turbine trip solenoid, completed 10/29/83.
 - ° PO No. 014009 for rewinding motor for MOV MO-1998B, completed 6/8/84.
 - ° PO No. 014228 for rewinding 125 HP river water supply pump motor, completed 6/19/84.
 - ° PO No. 022896 for rewinding 125 HP river water supply pump motor, completed 9/26/85.
 - ° PO No. 029850 for rewinding motor for MOV MO-4629, completed 10/8/86.
 - ° PO No. 030187 for rewinding motor for MOV MO-2322, completed 10/25/86.
- (a) In reviewing POs 022896, 029850 and 030187 the inspectors noted that the POs did not contain the supplier notification required by 10 CFR 21.31. This was an example of a violation of 10 CFR 21 (331/87012-02A).
- (b) In reviewing previous Janda work history on the 125 HP Westinghouse Electric Corporation (Westinghouse) vertical shaft river water supply pump motors the inspectors noted that the first motor failure (PO No. 30333 repair completed 10/23/79) was due to a failure of welds attaching the stator core to the motor case. The correction of the problem consisted of drilling and pinning the stator to the case. This appeared to be a failure mechanism that could involve other medium size vertical shaft Westinghouse motors. There was no objective evidence that the licensee or Westinghouse reported this problem to the NRC as required by 10 CFR 21. This is a second example of a violation of 10 CFR 21 requirements (331/87012-02B).
- (c) In reviewing PO 009880 the inspector noted that the RCIC turbine trip solenoid was nonconforming but conditionally released for operations. Since the nonconformance consisted of a change in plant configuration, a 10 CFR 50.59 review was required prior to release for operations. A 10 CFR 50.59 review was performed in accordance with Nuclear Generation Division Procedure No. 112.2,

"Conditional Release," Revision 0; however, Chapter 12 of the Operations QA Manual did not require a such a review on conditional releases for operations. This matter is unresolved pending revision of the Operations QA Manual to include this requirement (331/87012-03).

- (d) In reviewing records submitted to the licensee by Janda Electric the inspectors noted that in some cases calibration data indicated some instruments were out of calibration and required adjustment to meet required tolerances. There was no evidence that the licensee was using this data and evaluating plant equipment to determine the impact of testing with out-of-tolerance equipment. This matter is unresolved pending review on a subsequent inspection (331/87012-04).

b. Quality Assurance Audits

The inspectors reviewed licensee audits of Janda Electric. The inspectors noted that all the audits had not met current IE operation QA program audit requirements. The audits were more appropriately classified as surveillances per Section 17.2.7.3 of the operations QA program. Current audit requirements were included in Section 17.2.18 of the operations QA program in 1983. A "desk top" evaluation of Janda was performed by IE; however, the evaluation was performed without benefit of a Janda QA program. Criterion XVIII of 10 CFR 50, Appendix B requires that planned and periodic audits be performed to determine the effectiveness of and compliance with all aspects of the QA program. The inspector was informed that license personnel do not perform supplier audits at established intervals but only when considered to be needed. Failure to perform audits of Janda Electric is a violation of Criterion XVIII of 10 CFR 50, Appendix B (331/87012-05).

c. Assessment of Janda Supplied Hardware

The inspectors observed the Janda Electric facilities in Cedar Rapids, Iowa. Although Janda did not have a QA program, the facility appeared to be well controlled and employed an adequate number of experienced personnel. Janda management appeared very cooperative and conscientious. Both Janda and the licensee indicated that safety related work was covered by IE QC personnel.

The inspector reviewed licensee records of equipment repaired by Janda. There were no failures that could be attributed to poor workmanship by Janda. Much of the Duane Arnold Plant equipment repaired by Janda has operated satisfactorily for years.

Based on the above reviews and observation the inspectors concluded that there did not appear to be a safety concern with Janda Electric even though some programmatic problems existed with the licensee's implementation of the QA program.

Three violations and two unresolved items were identified.

4. Unresolved Items

Unresolved items are matters that require more information to ascertain whether the matters are acceptable items, violations or deviations. Unresolved items disclosed during this inspection are included in Paragraphs 3.a(2)(c) and 3a(2)(d) of this report.

5. Exit Meeting

The inspectors met with licensee representatives (denoted in Paragraph 1) at the Duane Arnold Energy Center on April 16, 1986, and summarized the purpose, scope and findings of the inspection. The inspectors discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspectors during the inspection. The licensee did not identify any such documents or processes as proprietary.