

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

Report No. 50-382/78-12

Docket No. 50-382

Category A2

Licensee: Louisiana Power and Light Company
142 Delaronde St.
New Orleans, Louisiana 70174

Facility Name: Waterford Steam Electric Station, Unit No. 3

Inspection at: Waterford Site, Taft, Louisiana

Inspection conducted: September 19-22, 1978

Inspectors:

for C. R. Oberg
R. C. Stewart, Reactor Inspector, Projects Section
(Paragraphs 1, 2, 3, 6, 7 & 8)

10/11/78
Date

R. E. Hall
J. I. Tapia, Reactor Inspector-Intern, Engineering
Support Section (Paragraphs 4 & 5)

10/11/78
Date

Other
Accompanying
Personnel:

(September 19, 1978 only)
R. Benedict, Project Manager, LWR Branch No. 2
W. Lovelace, Chief, Plans Branch, Office of Management
Information and Program Control
H. Berkow, Office of Planning and Analysis

Approved:

for C. R. Oberg
W. A. Crossman, Chief, Projects Section

10/11/78
Date

R. E. Hall
R. E. Hall, Chief, Engineering Support Section

10/11/78
Date

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Inspection Summary:

Inspection on September 19-22, 1978 (Report No. 50-382/78-13)

Areas Inspected: Unannounced inspection of construction activities including a follow-up review of safety related piping procedure development; observation of work activities related to installation of primary coolant pump supports and containment structural steel; and attendance at an NRC/licensee meeting regarding the status of construction and scheduled fuel load date. The inspection involved fifty-nine inspector-hours by two NRC inspectors.

Results: Of the three areas inspected, no items of noncompliance were found in two areas, one apparent item of noncompliance was found in the area of structural steel installation (infraction - failure to properly inspect structural steel welds - paragraph 4).

DETAILS

1. Persons Contacted

Principal Licensee Employees

- *A. E. Henderson, Jr., QA Manager
- *T. F. Gerrets, Project QA Engineer
- *C. J. Chatelain, QA Engineer
- *J. Woods, QA Engineer
- *B. M. Touts, QA Engineer
- *P. A. Jackson, Project Coordinator

Other Personnel

- *R. Milhiser, Project Superintendent, Ebasco
- *R. Hartnett, QA Site Supervisor, Ebasco
- *P. Smith, Site QA Officer, American Bridge
- *L. Stinson, Manager, Site QA Program, Ebasco
- *R. Bender, QA Engineer, American Bridge
- *J. Moskwa, QA/QC Manager, Nuclear Installation Services Company
- *W. Burton, QC Monitor, Peabody/X-Ray Company
- F. Kleban, Structural Engineer, Ebasco

The IE inspectors also interviewed other licensee and contractor personnel including members of the engineering and QA/QC staffs.

*denotes those attending the exit interview.

2. NRC/Licensee Construction Schedule Meeting

On September 19, 1978, the IE inspectors attended a meeting between representatives of the NRC and the licensee concerning the estimated construction progress schedules relative to the estimated fuel loading date.

The licensee presented information regarding status of engineering, procurement, startup planning, local labor environment, construction delays and comparative construction progress charts supporting the estimated fuel load date of May 1981.

A tour of the site was conducted by the licensee during which major site features and construction activities were discussed.

3. Implementing Procedures - Nuclear Installation Services Company (NISCO)

The IE inspector conducted a follow-on review of the NISCO implementing procedures relative to installation of the Nuclear Steam Supply System.

The IE inspector reviewed the NISCO QA program manual and the twenty items requiring either clarification or changes to the manual observed during a previous inspection^{1/}. The IE inspector had no question regarding the corrective measures initiated. NISCO has currently developed and issued eighteen (18) principal inspection and work procedures applicable to near term work activities. Selective examinations were made of eight implementing procedures in conjunction with the Ebasco/NISCO contract document W3-NY-1B; NISCO QA manual; ASME Section III, Division 1; 10 CFR 50, Appendix B; and ANSI N45.2 requirements.

No items of noncompliance or deviations were identified.

4. Structural Steel Welding^{2/}

Completed structural steel welds at elevation (-)4' in the containment building were inspected for conformance with American Bridge Procedure No. 6, Revision E, "Welding," and the AWS Structural Welding Code D1.1. One full penetration weld between embed plate P6 and beam 6B4 was found to have undercut of approximately 0.06 inches and an excessive protrusion of weld metal beyond the toe of the weld over approximately 30% of the length of the weld. In addition, weld slag still remained on the face of the weld. Two fillet welds connecting beam 20B3 to bracket 113B5 and beam 20B4 to bracket 113B6, respectively, also displayed the same unacceptable weld profiles. All three welds had been visually inspected and accepted prior to October 19, 1978, as verified by the IE inspector upon review of the American Bridge Weld Inspection Log.

The acceptance criteria for the visual inspection of the welds is defined in procedure No. 6 and includes, in part, Figure 3.6 of the AWS Structural Welding Code D1.1 for acceptable weld profiles and a limit on undercut of 0.03 inches. The licensee indicated that a review of all completed welds will be conducted in order to determine if any other unacceptable welds exist.

This is an infraction.

5. Reactor Coolant Pump Supports^{2/}

Nuclear Installation Services Company (NISCO) ongoing work activities were reviewed by the IE inspector. The work observed consisted of the initial bolting-up of the structural elements that make up the supports for two of the four reactor coolant pumps. Discussions

^{1/}IE Inspection Report No. 50-382/78-09, dated August 11, 1978

^{2/}This portion of the inspection was performed under the direction of the Project Inspector.

with the NISCO QA/QC Manager revealed that final tensioning of the high-strength bolts will be performed at a later date using a procedure not yet issued. During the discussion, it was identified that the forthcoming procedure would not address the tightening of the column anchor bolts. The Process Control Sheet (PCS) for the installation of the supports was subsequently reviewed and also found not to reference the tightening of the two and one-half inch ASTM A-540 bolts. The PCS is a detailed listing of production and quality control operational steps whose completion in an orderly sequence ensures conformance with design specification requirements. Although there is no torquing requirement, the identification of a documented instruction relative to the tightening of the anchor bolts, such that appropriate qualitative acceptance criteria are defined, is considered an unresolved item to be reviewed during a subsequent inspection.

6. Site Tour

The IE inspectors walked through various areas of the site to observe construction activities in progress and to inspect housekeeping and equipment storage.

No items of noncompliance or deviations were identified.

7. 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 item which relates to bolt tightening is identified in paragraph 5 above.

8. Exit Interview

The IE inspectors met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on September 22, 1978. The IE inspectors summarized the purpose and the scope of the inspection and the findings.