

APPENDIX B

U. S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-382/82-18

CPPR-103

Docket: 50-382

Category: A2

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

Facility: Waterford Steam Electric Station, Unit 3

Inspection at: Taft, Louisiana

Inspection conducted: August 16-20, 1982

Inspectors: Claude E. Johnson 9-17-82
C. E. Johnson, Reactor Inspector, Engineering Section Date
(Paragraphs 1, 2, 3, 4a and 5)

J. Roberts 9-17-82
J. Roberts, Engineering Technician, Engineering Section Date
(Paragraphs 1, 2, 3, 4b, & 5)

Reviewed: S.E. Martin 9/21/82
for W. A. Crossman, Chief, Reactor Project Section B Date

Approved: D. M. Hunnicutt 9/21/82
D. M. Hunnicutt, Chief, Engineering Section Date

Inspection Summary:

Inspection conducted August 16-20, 1982 (Report 50-382/82-18)

Areas Inspected: Routine, unannounced inspection of the quality assurance program for safety-related structural steel, supports, and spent fuel racks; observation of work for erection/installation of safety-related structural steel, supports and spent fuel racks. The inspection involved 69 inspector-hours onsite by two NRC inspectors.

Results: Within the areas inspected, one violation was identified (failure to follow procedures/instructions for the control of weld inspection/documentation of safety-related structural steel platforms, paragraph 4.a).

DETAILS

1. Persons Contacted

Principal Licensee Employees

- L. Bass, Project QA Engineer
- *R. Bennett, QA Engineer
- *B. Toups, QA Engineering Technician
- *G. F. Koehler, QA Engineer
- *P. Jackson, NPSG - Construction
- *J. Guillot, OPS-QA, QA Engineer
- *W. A. Cross, NPSG Licensing - onsite
- D. DeVoid, QA Engineer
- *M. A. Livesay, NPSG Licensing - onsite

Other Personnel

- D. Gober, Ironworker Superintendent, Ebasco
- C. V. Reid, Lead Engineer, Nuclear Installation Services Company (NISCO)
- M. Folsom, Field QC/QA Manager, NISCO
- N. Riddle, QA Engineer, Ebasco
- J. Gutierrez, QA Site Supervisor, Ebasco

The NRC inspectors also interviewed other contractor personnel.

*Denotes those attending the exit interview.

2. Site Tour

The NRC inspectors toured the fuel building, reactor auxiliary building, and the reactor building to observe construction in progress and to inspect housekeeping.

No violations or deviations were identified.

3. Spent Fuel Storage Racks

Review of Procedures

The NRC inspector reviewed specifications, drawings, work instructions, and inspection procedures to assure the technical adequacy of the activities pertaining to spent fuel storage racks. These documents appear to comply with NRC requirements and licensee commitments.

a. Procurement

The NRC inspector reviewed the design and purchase specifications and drawings to assure that specific technical requirements and commitments contained in the Technical Specifications and FSAR have been translated into vendor purchase documents. The NRC inspector verified the following:

- (1) Materials such as structural, welding, and neutron absorbing are as specified.
- (2) The required design and fabrication codes have been invoked. The specification states that the design shall be in accordance with the AISC Code, "Specification for the Design, Fabrication and Erection of Structural Steel for Building."
- (3) That critical dimensions are specified (fuel box center-to-center, seismic restraint clearance, etc.).

b. Receipt Inspection

The NRC inspector verified that receipt inspection instructions require inspections for damage, conformance to purchase specifications, proper identification, and verification that the proper supplier/vendor documentation was received.

c. Installation

The NRC inspector verified that work procedures provide adequate instructions for the following:

- (1) control of field welding and NDE procedures
- (2) control of rigging and handling to prevent damage
- (3) removal or modification of existing rack structures
- (4) proper location
- (5) dimensional checks for levelness, alignment, clearances, restraint installation.

d. Observation of Work and Work Activities

The NRC inspector did not perform an indepth visual examination of the spent fuel racks because the area had not been tested for gases (i.e., carbon dioxide, etc.). Air sample tests are usually performed each day when work is to be done in the area. The work was complete. However, the NRC inspector visually compared the configuration of the spent fuel racks relative to the assembly drawings. There were no obvious defects such as cracks, dents, and/or missing parts. The fuel racks appeared to be clean and properly located and oriented.

e. Review of Records

The NRC inspector reviewed records of the spent fuel racks. The QA/QC responsibility was that of NISCO.

The NCR inspector reviewed the traveler package that contained the required documentation for the spent fuel storage racks. The traveler contained a process control sheet (PCS). The PCS is used for all fabrication and/or installation processes to be performed by NISCO on items/materials that are governed by the ASME B&PV Code, Section III, specifically welding, NDE, heat treatment, and testing. The PCS provides the detailed checklist which allows closer control of product and quality operations. The PCS includes instructions, which in conjunction with the drawings provide sufficient criteria for performance and evaluation of the work. The PCS is used by NISCO QA/QC to identify inspection hold points.

Other items contained in the records were certified material test reports, welding and inspection data, and as-built drawings.

Documents Reviewed:

Specifications/Procedures

LOU 156F.719, "Spent Fuel Storage Racks (High Density)"

ES-1F7, "Process Control," Revision D

ES-63, "Material Control Procedure," Revision E

ES-3016-40, "General Handling Procedure," Revision B

ES-100-5, "Procedure for Visual Examination," Revision C

Traveler

No. 5.4 "Spent Fuel Racks"

No violations or deviations were identified.

4. Safety-Related Structures

a. Structural Steel

(1) Review of Procedures

The NRC inspector reviewed several procedures/specifications pertaining to safety-related steel structures. Appropriate and adequate procedures are included or referenced in the QA manual to assure that specific activities are controlled and performed according to applicable requirements such as inspection (QC) and/or work performance procedures which identify the items, including mandatory hold points, in the applicable codes, standards, construction specifications and site procedures, where witnessing or inspection is required. Procedures reviewed are listed below.

W3-NY-16, Part D12, "Erection of Main and Miscellaneous Structural Steel and Performance of Related Work," Seismic Category I & II.

W3-NY-16, Procedure No. 10, "Inspection of Torqued High Strength Bolts and Calibration of Torque Wrench," Revision D.

Specification No. LOU 1564.723, "Structural Steel," Seismic Class 1 & Class 2.

(2) Observation

The NRC inspectors observed work on partially completed safety-related steel structures outside the containment. These steel structures were platforms located on and around the main steam isolation valves at approximate elevation +54' in the reactor auxiliary building. The size and location of these platforms are such that their structural failure could damage nearby safety-related components and equipment around the mainsteam valves. There were two platforms observed; platforms A & B. Platform configurations appear to be in accordance with drawings except for platform B; there was an addition of a plate welded to the diagonal horizontal angle brace which was not shown on the design drawings. Upon completion of observation, the NRC inspector reviewed records/documentation.

(3) Records/Documentation

The NRC inspector reviewed the documentation that was available upon completion of the observation. Documentation was not readily retrievable and somewhat disorganized.

The documentation reviewed was for another platform on the same elevation but at a different location. The NRC inspector observed that there was no inspection records on the bolting nor the field change which added the plate and welds. The NRC inspector was informed that there would be no documentation on the bolting because the A325 bolts had not been torqued nor finally inspected by QC; however, there should be documentation for the welding. The NRC inspector found no record of weld inspection and also no design or field change request for the approval of the modification.

This is a violation.

b. Steel Supports

(1) Review of Quality Assurance Implementing Procedures

The NRC inspectors reviewed the following quality assurance procedures to assure that adequate controls for traceability, receiving inspection, storage, installation, and QA inspection have been established relative to safety-related structural steel and supports.

Specification Project Identification LOU 1564.723

- . Ebasco Specification 500-70, "Structural Steel," August 28, 1978
- . Addendum to Specification LOU 1564.723 for Class 1 structures & components
- . Ebasco Instruction Sheet, dated January 15, 1974
- . Ebasco Specification 501-76, "High Strength Bolted Field Connections for Structural Steel"
- . Ebasco Specification 860-75, "QA Requirements for Suppliers of Safety-Related Equipment & Services"
- . Ebasco Specification 860-72, "QC Requirements for Suppliers of Equipment & Services"

American Bridge Division Construction Department QA Manual, QAM-III-14

- . Procedure No. 5, "Calibration of Equipment," Revision G*
- . Procedure No. 4, "High Strength Bolting," Revision D

- . Procedure No. 9, "Erection of Structural Steel,"
Revision C
- . Procedure No. 10, "Inspection of Torqued High Strength
Bolts & Calibration of Torque Wrenches," Revision D
- . Procedure No. 12, "Reporting Nonconformances,"
Revision B
- . Procedure No. 16, "Reporting Discrepancies - Both
Safety & Non Safety-Related," Revision B

Ebasco Drawing 1564-G-893S02

Ebasco Order No. NY-403509, August 23, 1974, and Supplement
No. 7, April 13, 1976 Contract C-3501-N Peden Steel

The procedures reviewed appear to conform to the QA program as
described in Chapter 17 of the SAR.

No violation or deviations were identified.

(2) Observation of Work and Work Activities

During the inspection, the NRC inspectors observed work and work
activities in the reactor auxiliary building.

(a) Component Supports

The NRC inspector visually inspected the completed work on
the low pressure safety injection (LPSI) pump supports
(pumps A and B) to verify that the installation was in
accordance with design drawing. Work observed was all
completed and final inspection had been made.

The supports had been fabricated by Peden Steel Company and
installed by American Bridge Division, U. S. Steel Corporation
onsite. The location and general appearance of the supports
appeared as the design drawing indicated.

(3) Review of QA Records/Documentation

(a) Component Supports

The NRC inspector randomly selected seven piece numbers from
the design drawing for the LPSI supports and reviewed the
QA documentation. The supports were fabricated offsite by
Peden Steel.

Vendor documentation included mill certs, welding data, test reports, NDE data, layout/fittings, cleaning/coating, and shipping. All documentation had been reviewed and signed by the Ebasco vendor QA representative.

The supports were installed by American Bridge Division, U. S. Steel Corporation. Documentation reviewed was in compliance with American Bridge Division Construction QA Manual, QAM-III-14.

Final inspection was performed by Ebasco QA. The QA records reviewed reflected materials, installation/erection, and QC inspection consistent with NRC requirements and SAR commitments.

Records reviewed are listed below:

Peden Steel

- . Certified Mill Test Reports (Northwestern Steel & Wire Company)
- . Welding Data Reports (material test reports from Teledyne McKay)
- . Inspection Reports
 - Layout and fittings
 - Welding
 - Cleaning/coating
 - Loading and shipping
- . Release for shipment

American Bridge

- . RAB Daily Bolt Inspection

Ebasco

- . Supplier Records/Documentation Checklist
- . Material Receiving Report

- . Material Receiving Inspection Report
- . Dispositioned Information Requests
- . Erection Sequence List, Area No. RAB10,
Elevation -30.23'

The QA records listed above, although cumbersome, reflected work accomplishment consistent with implementing procedures, NRC requirements, and SAR commitments.

5. Exit Interview

The NRC inspectors met with R. Bennett, acting for L. Bass, and other licensee and contractor personnel on August 20, 1982, as denoted in paragraph 1 to discuss the scope and findings of this inspection. The violation identified in this report was acknowledged by the licensee representatives.