

APPENDIX C

U. S. NUCLEAR REGULATORY COMMISSION
REGION IV

Report: 50-382/82-06

Docket: 50-382

License CPPR-103

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

Facility Name: Waterford Steam Electric Station, Unit 3

Inspection At: Taft, Louisiana

Inspection Conducted: May 10-13, 1982

Inspectors:

L. E. Martin
L. E. Martin, Reactor Inspector
Reactor Project Section B (Pars. 3, 7, 8, & 9)

6/21/82
Date

for B. M. Hennicutt
L. Gilbert, Reactor Inspector
Engineering Support Section (Par. 2)

6/21/82
Date

W. S. Schum
W. S. Schum, Reactor Inspector
Reactor Project Section B (Pars. 1, 2, & 4-7)

6/21/82
Date

Other

Accompanying

Personnel: G. Hubbard, Equipment Qualification & Test Engineer
Equipment Qualification Section

Approved:

W. A. Crossman
W. A. Crossman, Chief
Reactor Project Section B

6/21/82
Date

Inspection Summary

Inspection Conducted May 10-13, 1982 (Report 50-382/82-06)

Areas Inspected: Routine, unannounced inspection of licensee action on previous inspection findings; licensee identified items; housekeeping; reactor vessel and internals; review of NISCO's primary pressure boundary piping installation; component maintenance; and construction deficiency reporting. This inspection involved 72 inspector-hours onsite by three NRC inspectors.

Results: Of the seven areas inspected, one violation and one deviation were identified in two of the areas. One violation was identified in the reactor vessel housekeeping area (paragraph 5) and one deviation was identified in the weld heat treatment area (paragraph 2).

Details1. Persons ContactedPrincipal Licensee Employees

- *L. Bass, Project QA Engineer
- *R. Bennett, QA Engineer
- *T. Gerrets, QA Manager
- *G. Koeler, QA Engineer
- *R. Sandridge, QA Engineer
- *P. Prasankumer, Maintenance Supervisor
- *M. Pecant, Electrical Assistant Supervisor
- *H. Canavier, Mechanical Assistant Supervisor
- *J. Brown, Assistant Plant Manager
- *D. Lester, Plant Manager
- *W. Cross, Onsite Licensing Engineer
- *R. Prados, Licensing
- *B. Toups, QA Engineer

Other Personnel

- *M. Folsom, Field QA Manager, NISCO
- *J. Gutierrez, QA Site Supervisor Ebasco
- *C. Van Dyke Reid, Lead Engineer, NISCO

The NRC inspectors also interviewed other contractor personnel.

*Denotes those attending exit interview.

2. Follow Up on Previous Inspection Findings

(Closed) Unresolved Item (50-382/82-05.6): Spray Ring Boss I.D.

Documents associated with the spray ring in question showed boss improperly fabricated originally. The ensuing repairs were properly performed and documented.

This item is considered closed.

(Closed) Violation (50-382/81-17): Failure to Follow Procedures for Documentation of Nonconformities and Control of Welding Electrodes.

The NRC inspector verified that the reinstallation of the containment equipment hatch cover was recorded as a nonconformance on the nonconformance control list and documented on a repair checklist by Chicago Bridge & Iron (CB&I). The NRC inspector also reviewed two followup surveillance audits performed on CB&I electrode control by Ebasco QA personnel which reported CB&I to be in compliance with procedural requirements for electrode control.

This item is considered closed.

(Closed) Unresolved Item (50-382/81-17): Postweld Heat Treatment (PWHT) of Reactor Coolant Pressure Boundary (RCPB) Piping.

The NRC inspector reviewed Nonconformance Report W3-1670, Supplements 1, 2, and 3, which documented the abnormal PWHT of RCPB pipe Welds P10W1 and P10W2, and the supporting reference documents that resulted in the final disposition of "accept-as-is."

The supporting documents included: requalification of Welding Procedure Specification 10.1.14 to include the postweld heat treatment temperature and time used by NISCO on Welds P10W1 and P10W2 as reported in Procedure Qualification Record Number 148, Revision A; retesting of the five heats of E7018 electrode, used to complete Welds P10W1 and P10W2, as reported in Lucius Pitkins' letter M-5831 of December 10, 1979; and evaluation of Combustion Engineering (CE) supplied material postweld heat treated by NISCO during postweld heat treatment of Welds P10W1 and P10W2 as documented in CE Analytical Evaluation Report CENC-1460. The NRC inspector noted that after retest, three of the five E7018 electrode heats used by NISCO did not meet the requirements of Specification SFA 5.1 for tensile strength and yield strength. In the worst case, the E7018 weld metal was degraded to a tensile strength of 65,000 psi (70,000 psi minimum required) and a yield strength of 53,200 psi (58,000 psi minimum required).

CE performed an analytical evaluation which took into consideration that the affected material, both weld metal and pipe base metal, is equivalent to Specification SA-516, Grade 65, and concluded that it was still satisfactory for service.

The FSAR commitment to use weld metal of Specification SFA 5.1, E7018 and pipe material of Specification SA 516, Grade 70 has not been met.

This unresolved item is being upgraded to a deviation.

3. Follow Up on Licensee Identified Problems

(Closed) Construction Deficiency Report 50.55(e): Fire Damage in RCB to Main Steam Line and Safety Related Cables.

The NRC inspector reviewed NCR W3-3093 and the INS Investigation Bureau, Inc., Report 94214-00025 resulting from fire in reactor containment building on May 11, 1981. The damaged electrical cables were repulled and the Ebasco Materials Application Department Test Report of Hardness Testing of MS Pipe and Hangers, dated November 25, 1981, indicates by test that any changes in metallurgical properties of the piping and hangers were negligible.

This item is considered closed.

4. Site Tour

The NRC inspectors toured the auxiliary building, turbine building, reactor building, fuel handling building, and control room to observe the ongoing construction, testing, maintenance, and housekeeping.

During the course of the tour, one item of violation was identified as addressed in paragraph 5.

5. Reactor Vessel and Internal Housekeeping

During the site tour, it was noted that the cleanliness of the reactor vessel head, refueling canal, and internals was not satisfactory. A review of NISCO daily housekeeping audits for the period of April 1-29, 1982, revealed that the conditions of the reactor vessel head were unsatisfactory for the entire month. After April 19, 1982, the findings were annotated to "see inspection report of April 19, 1982" rather than write the findings again. This condition is the same as reported in a violation associated with NRC Inspection Report 82-05 conducted March 1-5, 1982. The findings on these daily inspections were not acted upon and the same conditions appeared when the NRC inspectors toured the facility on May 10, 1982.

Criterion XVI of 10 CFR 50, Appendix B, states, ". . . measures shall be established to assure conditions adverse to quality are promptly identified and corrected." The foregoing demonstrates repetitive failure to provide prompt and appropriate corrective action to negative inspection findings regarding reactor head cleanliness.

This is a Severity Level IV Violation.

6. Review of Primary Pressure Boundary QA

The NRC inspector reviewed the procedures and the QA records for the primary pressure boundary piping installation as performed by Nuclear Installation Services Co. (NISCO). The NRC inspector reviewed the following documents:

- a. Installation and Fit Up Procedures for Reactor Vessel and Internals ES-159
- b. Cleanliness Requirements ES-67-CE
- c. NISCO Control Drawings
- d. Pipe Spool Drawings
 - (1) 816E337, Rev. 11
 - (2) CE 74470-771-003, Rev. 4

(3) CE 74470-771-007, Rev. 6

- e. Monitoring Data for Steam Generator and Reactor Vessel Installation PCS 3015-208 from March 8, 1979 through October 8, 1979
- f. Procedure Control Sheets for Various Welds
- g. Several NDE Reports
- h. Welder Qualification Records for Selected Welds

No violations or deviations were identified.

7. Component Maintenance

a. Mechanical Equipment

The NRC inspector reviewed the maintenance program for the systems release to LP&L. The following startup systems were reviewed:

- System 22-2 Fire Protection-Diesel Fire Pump, released February 19, 1979
- System 58 Refueling Water, released July 17, 1981
- System 62 Fuel Pool Cooling and Purification, released October 30, 1981

During attempts to determine what maintenance was required, it was noted that no master list of maintenance required was available.

The process for establishing maintenance requirements is as follows. The various departments generate maintenance requirements for equipment. (This does not in all cases meet manufacturers' requirements.) These preventative maintenance (PM) requirements are then reviewed by the PM committee for related tasks and scheduling, as well as departmental assignments. The PM's then go to the respective departments for task card generation and computer input. The computer will then schedule maintenance, as required. In reviewing the scheduled PM for the systems selected, the following maintenance items are required:

- (1) Diesel Fire Pumps
 - (a) Annual Vibration Analysis
 - (b) Quarterly Cleaning of Air Filters

Other items are checked during the monthly runs of the pump and weekly battery checks are included.

(2) Refueling Water System

Checks on Fuel Pool Recirculation Pumps

(3) Fuel Pool Cooling and Purification

Annual Vibration Analysis

The equipment maintenance requirements are not being reviewed until system release. Due to the time involved in this task, the maintenance on a given system is falling behind. In addition, the maintenance system appears too skimpy to be effective in all areas. Due to the magnitude of the maintenance program, the inspectors will require more inspection time to determine the adequacy of the PM program. Further inspection will be performed in this area during a subsequent inspection. In conjunction with the PM program, the Station Lubrication Program was reviewed by the NRC inspector. The lube system is a computerized program listing items requiring lubrication, frequency, and proper lubricant divided into zones. The system should work well after initial problems are worked out.

b. Electrical Equipment

The NRC inspector reviewed the LP&L maintenance schedule and required maintenance for the following equipment.

- (1) Dry Cooling Tower Fans
- (2) Wet Cooling Tower Fans
- (3) Motor Operated Valve SI-138B
- (4) Component Cooling Water (CCW) Make Up Pump A

To date, most of the above equipment has not been scheduled for maintenance. The planners are still scoping the systems for maintenance requirements and attempting to implement the corrective action required by NRC Inspection Report 82-05. Further inspection will be performed in this area in a subsequent inspection.

No violations or deviations were identified.

8. Construction Deficiency Reporting

The NRC inspector reviewed a draft revision of QP 15.3, Rev. 2, "Handling of Significant Construction Deficiencies." This draft revision, as reviewed by the NRC inspector, does not meet the April 1, 1980, NRC Guidance on 50.55(e) reporting. This was discussed with the licensee QA representatives. The licensee has elected to make further changes to this procedure.

9. Exit Meeting

The NRC inspectors met with T. F. Gerrets and other licensee and contractor personnel on May 13, 1982, to discuss the scope and findings of this inspection. The violation and deviation identified in this report were acknowledged by the licensee representatives.