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

Report No. 99900098/79-01 Program No. 51300

Company: CBI Nuclear Company
2700 Channel Avenue
Memphis, Tennessee 38113

Inspection
Conducted: March 12-15, 1979

Inspector: V H Hunter 4-6-79
V. H. Hunter, Contractor Inspector Date
Vendor Inspection Branch

Approved by: D. E. Whitesell 4-6-79
D. E. Whitesell, Chief, Components Section I, Date
Vendor Inspection Branch

Summary

Inspection on March 12-15, 1979 (99900098/79-01)

Areas Inspected: Implementation of 10 CFR 50, Appendix B, criteria and applicable codes and standards, including inspections and tests, weld material control, action on previous finding, and reactor pressure vessel cleaning process. The inspection involved twenty-four (24) inspector hours on site.

Results: In the four (4) areas inspected, no apparent deviations or unresolved items were identified.

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Details

A. Persons Contacted

*A. J. Larson, General Manager
*J. T. Anderson, Project Manager
*J. L. Snider, Plant Manager
*F. R. Allred, Project Manager
*W. Terrell, QA and Welding Supervisor
*L. Baucher, Corporate QA
J. L. Miller, General Foreman, QA/Welding
J. M. Williams, Supervisor, QA/Welding
G. N. Beil, NDE Foreman

*Denotes those present at the exit interview meeting.

B. Action on Previous Inspection Findings

1. (Closed) Deviation (Report No. 99900098/77-02): Certain personnel folders did not contain a summary of training and experience while certain other folders did not contain a statement of capability. It was verified that personnel folders had been updated and audited.

2. (Closed) Deviation (Report No. 99900098/77-02): Corporate audit not conducted. It was verified that paragraph 5.1, Division 1 of the QA Manual requires the Director of CQA to regularly review the status and adequacy of the QA program and report in writing to the General Manager annually on it's effectiveness. This review and report was last documented on November 8, 1978.

C. Reactor Pressure Vessel Cleaning Process

1. Objectives

The objectives of the area of the inspection were to ascertain the cause and corrective actions relative to the apparent lack of cleanliness of the Perry No. 1 reactor pressure vessel.

2. Objectives Accomplished

The preceding objectives were accomplished by:

a. Review of Cleaning procedures CTP-201 and CP-301.

b. Review of contract 5CN508.

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c. Review of the restricted personnel entry log for the affected vessel.

d. Interviews with management and inspection personnel.

3. Inspection Findings

A thorough review of the affected reactor pressure vessel (RPV) documentation disclosed the following:

a. The RPV was originally cleaned and inspected by both CB&I-N and GE personnel on January 31, 1978, and placed in an outside holding area.

b. Due to a request from the customer, for ASME Section XI modifications to N-4 and N-10 nozzles, the RPV was returned to the shop.

c. These modifications were accomplished using procedures CTP-201, Revision 1, which requires that entrance into the vessel be limited to authorized personnel only and verified by CBI-N inspection.

d. During the limited access modifications, the cracking of the seismic pin keepers was identified.

e. The subsequent repairs of the seismic pin keepers were also accomplished via the controlled access method. However, due to an oversight, the repair area for the pin keepers was not included in the cleaning and inspection of the vessel on June 4, 1978.

f. As a result of the oversight, CBI-N has issued instructions to the effect that all future ASME Section XI modifications will be performed at the time of internals insertion in order to preclude the need for subsequent vessel entry.

D. Manufacturing Process Control, Welding Material Control

1. Objective

The objective of this area of the inspection was to verify that welding material was identified and controlled until it is consumed in the process in accordance with the customer's design specifications, ASME Code, and applicable NRC regulations.

2. Method of Accomplishment

The objective of this area of the inspection was accomplished by:

a. Review of the ASME accepted QA Manual, Division 3, Sections 4.0, 7.0, and 8.0, to verify that procedures had been established for purchasing, receiving, distribution, and handling of weld materials.

b. Review of Contract Handbooks 8-CN250 and 8-CN770 to verify that distribution of welding material was controlled in accordance with approved procedures, and unused welding materials are scrapped or recycled in accordance with approved procedures.

c. Observation in shop welding and storage areas to verify that:

(1) Welding materials are clearly identified at all times in accordance with approved procedures, and the identification as acceptable material is maintained throughout storage and manufacturing until the material is consumed in the welding process.

(2) Welding materials requiring environmental control are maintained at the appropriate holding, and/or baking temperature, for the time specified by the procedure.

d. Interviews with personnel to verify that they are knowledgeable of the vendor's procedures applicable to Welding Material Control.

e. Observed the following in-process welding to verify implementation of the above:

(1) Piece 17-3 to 14-A-1 weld of core spray spargers in accordance with WPS-2435-1F7, revision 4 as identified in Contract Handbook 7-CN437.

(2) Weld seams 2-A-9 and 2-A-10 of quencher body assemblies in accordance with WPS-5335-2F7F5 as identified in Contract Handbook 8-CN250.

3. Inspection Findings

Within the areas inspected, there were no apparent deviations or unresolved items identified.

E. Inspections and Tests

1. Objectives

The objectives of this area of the inspection were to verify that the nondestructive examination procedures (NDE), used by the vendor, meet the ASME Code requirements, applicable NRC regulations, and contract committments. Also, to verify that NDE was being performed by qualified personnel in accordance with approved and qualified procedures as described by the vendor's quality assurance program.

2. Method of Accomplishment

The objectives of this area of the inspection were accomplished by:

a. Review of Section 7.0, Division 3, issue No. 8 of the ASME accepted QA Manual titled, "Inspections and Tests."

b. Review of the following NDE procedures to verify that significant variables are defined and controlled within the limits specified by the ASME Code and contract requirements:

(1) Liquid penetrant - PTP-9, revision 7

(2) Magnetic Particle - MTP-11, revision 8

(3) Ultrasonic - MM-37, revision 1

(4) Radiographic - RTP-8, revision 13

c. Observing the following in-process NDE to verify implementation of the above listed requirements:

(1) Radiography of AB weld seam of reactor pressure vessel identified in contract 73-C120;

(2) Ultrasonic test of weld seam identified in (1) above;

(3) Magnetic Particle test of weld seam identified in (1) above; and

(4) Liquid Penetrant test of weld seam identified in (1) above.

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d. Review of NDE personnel qualifications.

e. Review of radiographic film for reactor pressure vessel weld seam AB as identified in contract 73-C120.

3. Inspection Findings

Within the areas inspected, there were no apparent deviations or unresolved items identified.

F. Exit Interview

The inspector met with management representatives (denoted in paragraph A) at the conclusion of the inspection on March 15, 1979. The inspector summarized the scope and findings of the inspection. The management representatives had no comment in response to each item discussed by the inspector.

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