

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

IE Inspection Report No: 50-286/75-07

Docket No: 50-286

Licensee: Consolidated Edison Company of New York, Inc.

License No: CPPR-62

Indian Point 3

Priority: _____

4 Irving Place, New York, New York 10003

Category: B

Location: Buchanan, Westchester County, New York

Safeguards Group: _____

Type of Licensee: PWR, 1050 MW(e) Westinghouse

Type of Inspection: Special, Announced

Dates of Inspection: March 17 and 18, 1975

Dates of Previous Inspection: February 27 and 28, 1975

Reporting Inspector: *B. Blushman*

3/25/75
Date

for Seth A. Folsom, Reactor Inspector

Accompanying Inspectors: R. T. Carlson, Chief, FC&ES Branch

Date

Date

Date

Date

Other Accompanying Personnel: NONE

Date

Reviewed By: *B. Blushman*

3/25/75
Date

R. F. Heishman, Senior Reactor Inspector

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Q PDR

SUMMARY OF FINDINGS

Enforcement Action

A. Items of Noncompliance

None

B. Deviations

None

Licensee Action on Previously Identified Enforcement Items

A. Items of Noncompliance

Licensee's corrective actions with respect to the following items were reviewed by the inspector and found complete. These matters are considered resolved.

1. Open cans of low hydrogen electrode, IE:II Inspection Report 50-286/69-4. (Details, Paragraph 2)
2. Steam generator nut plates not stress relieved, IE:II Inspection Report 50-286/69-4. (Details, Paragraph 3)
3. Handling and storage of hydraulic seismic restraints, IE:I Inspection Report 50-286/74-22. (Details, Paragraph 5)

Design Changes

None identified

Unusual Occurrences

None identified

Other Significant Findings

A. Current Findings

None

B. Status of Previous Unresolved Items

The following previous unresolved items are considered resolved:

1. Steam generator cladding thickness, IE:II Inspection Report 50-286/69-4. (Details, Paragraph 4)
2. Liner plate weld gap, IE:I Inspection Report 50-286/69-7. (Details, Paragraph 6)
3. Implementation of Vulcan valve opening procedure, IE:I Inspection Report 50-286/73-01. (Details, Paragraph 7)
4. Acceptance of QC documentation by NSSS supplier, IE:I Inspection Report 50-286/73-09. (Details, Paragraph 8)
5. Hydrotest of reactor coolant piping, IE:I Inspection Report 50-286/70-4. (Details, Paragraph 9)
6. Steam generator cladding repair, IE:I Inspection Report 50-286/71-5. (Details, Paragraph 10)

Management Interview

A management interview was held at the site on March 18, 1975.

Persons Present

Consolidated Edison Company of New York, Inc.

Mr. H. W. Cairns, Supervising Construction Inspector
Dr. G. I. Coulbourn, Manager, Indian Point 3 Construction
Mr. J. P. Dean, Supervising QA Examiner
Mr. R. B. Hayman, Manager, Quality Assurance
Mr. P. B. Upson, Chief Construction Inspector
Mr. J. S. White, Manager, Program Development

Wedco

Mr. S. R. Buckingham, Quality Assurance Manager
Mr. M. L. Snow, Reliability Manager

Items Discussed

In each of the items discussed below, the licensee acknowledged the information presented by the inspector.

A. Purpose of the Inspection

The inspector stated that the purpose of the inspection was to review the status of previously identified unresolved and noncompliance items, and the current plant completion status.

B. Project Status

In response to the inspector's question concerning the fuel load date, the licensee stated that fuel loading was scheduled for April, 1975, with a more exact date to be determined later in the week. The inspector stated that fuel loading in April 1975 appeared to be unrealistic based upon the magnitude of the work remaining to be accomplished before fuel loading could start.

C. Review of Items of Noncompliance

None

D. Review of Previous Unresolved Items

The items discussed are identified under Status of Previous Unresolved Items in the Summary of Findings in this report. (Details, Paragraphs 4, 6 through 10)

E. Review of Previous Items of Noncompliance

The items discussed are identified under Licensee Action on Previously Identified Enforcement Items in the Summary of Findings in this report. (Details, Paragraphs 2, 3 and 5)

DETAILS

1. Persons Contacted

Consolidated Edison Company of New York, Inc.

Mr. H. W. Cairns, Supervising Construction Inspector
Dr. G. I. Coulbourn, Manager, Indian Point 3 Construction
Mr. J. P. Dean, Supervising QA Examiner
Mr. R. B. Hayman, Manager, Quality Assurance
Mr. A. D. Kohler, Jr., Resident Construction Manager
Mr. D. Milano, Electrical Field Engineer
Mr. V. M. Perry, Jr., Superintendent Construction
Mr. P. B. Upson, Chief Construction Inspector
Mr. J. S. White, Manager, Program Development

Wedco

Mr. S. R. Buckingham, Quality Assurance Manager
Mr. J. B. Campbell, Quality Control Manager
Mr. M. L. Snow, Reliability Manager

Stone & Webster

Mr. J. M. Leavy, Advisory Engineer

Branch Laboratories, Inc.

Mr. A. Swansen, Quality Control Inspector

2. Open Cans of Low Hydrogen Electrode

The inspector had observed the presence of opened cans of low hydrogen electrodes adjacent to steam generators under construction at the vendor's shop. There was no certainty that these electrodes had been used in welding the steam generator. The welding materials control measures subsequently taken by the vendor have been described in a Westinghouse letter to the Vice President of Wedco Engineering, dated March 14, 1975, including the statement that the pre-heat temperatures employed in the welding operation would have assured the diffusion of any hydrogen from the steam generator welds.

This information was considered to be acceptable. This item is resolved.

3. Steam Generator Nut Plates Not Stress Relieved

The inspector had observed that the vendor had not stress relieved the insulation attachment nut plates on the steam generator channel heads. In a letter to the Vice President of Wedco Engineering, dated March 14, 1975, the vendor has justified the failure to stress relieve the attachment nuts with the lower assembly following fabrication, as follows:

- a. Post weld heat treatment in the field following tube sheet clad separation repair.
- b. The stress relieving was not an ASME Boiler and Pressure Vessel Code requirement, as attachments not exceeding 0.5 inch thickness are exempted from post weld heat treatment.
- c. Magnetic particle inspection of the nut attachment welds performed following the primary coolant system cold hydrotest.

This information was considered to be acceptable. This item is resolved.

4. Steam Generator Cladding Thickness

The inspector had questioned the absence of thickness measurements on the steam generator cladding. The vendor has stated the following justification for the absence of cladding thickness measurement.

- a. There is no satisfactory nondestructive method available for verifying cladding thickness because there is no sharp interface in the properly deposited cladding.
- b. Assurance of specified clad thickness is provided by the process of qualification and process control.
- c. No design strength credit is taken for the cladding.
- d. The expected corrosion rate of the cladding is expected to be a fraction of a mil per year, so that the specified 250 mil cladding thickness provides a large margin over actual needs for 40-year plant life.

This information was considered to be acceptable. This item is resolved.

5. Handling and Storage of Hydraulic Seismic Restraints

The inspector found that the program of modification of the approximately 155 hydraulic seismic restraints was reported to be 37% complete. The handling, storage, and inspection of the modified restraints was reviewed, and the documentation on a selected sample of nine restraints was examined for conformance to the procedures.

The documentation examined included the following:

- a. Wedco Procedure No. WQA-4-0-17, Rev. 1, July 16, 1974, which included scope, responsibility, identification, rejection, acceptance documentation, records, and final record verification.
- b. "Pipe Hanger QC Training Program," conducted by Nuclear Service and Construction Company.
- c. Wedco letter, N. F. Falgione to J. H. Brower, December 19, 1974, designating types of silicone oil to be used in hydraulic seismic restraints.
- d. "Hydraulic Snubber Inspection Reports" related to nine selected hydraulic seismic restraints, on which final QC inspection had been completed. These reports included detailed dimensioned sketches. Defects found in original inspections had been recorded, and repair records entered.

This item is resolved.

6. Liner Plate Weld Gap

The inspector examined the following documentation relating to the repair of a containment liner plate gap.

- a. Chicago Bridge and Iron Company, "Liner Plate Repair Procedure GRP-1," October 7, 1969, which included weld preparation, welding, joint details, and inspection.
- b. UE&C Interoffice Memorandum - Slotterback to Vurpillat, January 13, 1970, which accepted the weld qualification based upon PTL test results of the plates made up to conform to the weld gap observed. The memorandum stated in part, "---The CB&I weld repair procedure in Reference A is acceptable based on the satisfactory results which resulted from the testing of specimens reported in Reference B."
- c. PTL Test Records relating to the qualification of the weld.

The documentation was considered to be acceptable. This item is resolved.

7. Implementation of Vulcan Valve Opening Procedure

The inspector examined the Wedco Field Job Order 1803, Sheets 1 and 2, May 28, 1974, which described the details for resetting Valve limit switches to control the Valve disc positions. The "Work Completed Certification" was signed by R. D. Brewster, Lead Electrical Engineer March 7, 1975.

This documentation was considered to be acceptable, and this item is resolved.

8. Acceptance of QC Documentation by NSSS Supplier

The inspector examined the following documentation regarding Westinghouse acceptance of Quality Releases (QR's).

- a. Wedco memorandum, dated February 25, 1974, signed by J. A. Burgess, Manager, Product Assurance Systems, which directed the resolution of all QR's which required further action.
- b. Westinghouse letter to Wedco (S. R. Buckingham), March 14, 1975, signed by B. D. Alitt, Manager, Quality and Reliability Engineering.

This documentation was considered to be acceptable, and this item is resolved.

9. Reactor Coolant Piping Hydrotest

The reactor coolant system piping hydrotest, performed on October 1, 1974, was witnessed by the inspector.

This item is resolved.

10. Steam Generator Cladding Repair

The inspector examined the documentation regarding the repair of the steam generators to preclude failure of cladding in the steam generator water boxes, which included the following:

- a. "Wedco Field Job Order (FJO) No. 324," November 15, 1971, signed by D. N. Brown, Jr., Wedco Construction Mechanical Superintendent, which defined the cladding repairs to be performed on Steam Generators 31, 32, 33 and 34.
- b. "Wedco General Inspection Report," November 21, 1973, signed by J. Nolan, which states in part, "All work on this FJO has been completed, inspected, and accepted."

This documentation was considered to be acceptable, and this item is resolved.