

U.S. ATOMIC ENERGY COMMISSION

DIRECTORATE OF REGULATORY OPERATIONS

REGION I

RO Inspection Report No: 50-286/75-04

Docket No: 50-286

Licensee: Consolidated Edison Company of New York, Inc. (Indian Point 3)
4 Irving Place

License No: CPPR-62

New York, New York 10003

Priority: _____

Location: Buchanan, Westchester County, New York

Category: B

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

Type of Inspection: Special, Announced

Dates of Inspection: January 11-14, 1975

Dates of Previous Inspection: January 7-10, 1975

Reporting Inspector: S. A. Folsom
Seth A. Folsom, Reactor Inspector

1/21/75
Date

Accompanying Inspectors: None

Date

Date

Date

Date

Other Accompanying Personnel: None

Date

Reviewed By: R. F. Heishman
R. F. Heishman, Senior Reactor Inspector

1/24/75
Date

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SUMMARY OF FINDINGS

Enforcement Action

None

Licensee Action on Previously Identified Enforcement Items

None

Design Changes

None identified

Unusual Occurrences

None identified

Other Significant Findings

A. Current Findings

1. Repair work on the containment equipment hatch, to correct out-of-roundness, had been completed. The repair program and its implementation were examined by the inspector, and no deficiencies were identified. (Details, Paragraph 7)
2. The containment structural integrity test was successfully completed during the inspection. (Details, Paragraph 2)

Status of Previously Reported Unresolved Items

1. The following previously reported outstanding items have been resolved:
 - a. Automatic transfer circuits between redundant power sources. (Details, Paragraph 3)
 - b. Siphoning action in irradiated fuel pool. (Details, Paragraph 4)
 - c. Reactor coolant pump support rebuilding program. (Details, Paragraph 5)

- d. Loose shaft nut on RHR pump. (Details, Paragraph 6)

Management Interview

An exit interview was conducted with Mr. H. W. Cairns at the site at the conclusion of the inspection on January 14, 1975. The following items were discussed:

- A. The inspector stated that he had observed the implementation of the containment structural integrity test, and the related documentation. No deficiencies had been identified. The licensee acknowledged this information. (Details, Paragraph 2)
- B. The inspector stated that the following previously reported items had been resolved during the inspection:
1. Automatic transfer circuits between redundant power sources. (Details, Paragraph 3)
 2. Siphoning action in irradiated fuel pool. (Details, Paragraph 4)
 3. Reactor coolant pump support rebuilding program. (Details, Paragraph 5)
 4. Loose shaft nut on RHR pump. (Details, Paragraph 6)

The licensee acknowledged this information.

- C. The inspector stated that an excessive number of items remained to be resolved, in view of the licensee's scheduled fuel loading date. Among these items were the pressure boundary valve dimensional data and the steam generator support repair documentation. The licensee stated that every effort was being made to complete work on all outstanding items, and agreed to notify the inspector upon completion of the valve data and steam generator support packages.
- D. The inspector stated that on December 3, 1974 he had discussed with the licensee a diode failure at another nuclear plant, which had caused a failure of their reactor protection system. He had asked whether similar circuitry was used at Indian Point 3. The licensee had agreed to review the occurrence. This item remains unresolved.

- E. The inspector stated that on December 24, 1974 he had been notified by the licensee that the containment equipment hatch was out-of-round, and that modifications would be required prior to the start of the containment structural integrity test. The repair work had been completed and the inspector had reviewed the documentation and implementation of the repair program, and no deficiencies had been identified. This item is resolved. The licensee acknowledged this information. (Details, Paragraph 7)

DETAILS

1. Persons Contacted

Consolidated Edison Company

Mr. H. W. Cairns, Supervising Construction Inspector
Dr. G. I. Coulbourn, Manager, Indian Point No. 3 Construction
Mr. P. Desmaris, Test Supervisor
Mr. C. Mackay, Test Supervisor
Mr. J. Manuel, Test Supervisor
Mr. D. Milano, Electrical Field Engineer
Mr. K. E. O'Connor, Watch Engineer
Mr. V. M. Perry, Jr., Superintendent, Construction
Mr. J. Russell, Watch Foreman
Mr. P. B. Upton, Chief Construction Inspector

WEDCO

Mr. S. R. Buckingham, Quality Assurance Manager
Mr. J. B. Campbell, Quality Control Manager
Mr. D. Holstein, Test Director
Mr. M. L. Snow, Reliability Manager
Mr. C. Walter, Test Director
Mr. J. Wardle, Test Director

United Engineers and Constructors

Mr. Y. S. Lin, Test Engineer

Wiss, Janney, Elstner Company

Mr. S. G. Pinjarkar, Test Engineer

Stone & Webster

Mr. J. M. Leavy, Advisory Engineer

Gilbert Associates

Mr. R. Shirk, Test Consultant

Energy, Inc.

Mr. T. Van Witbeck, Test Consultant

2. Containment Structural Integrity Test (SIT)

The containment structural integrity test was completed during the inspection. The inspector witnessed the implementation of the test program starting with the inspection of the containment interior prior to initial pressuring, and continuing through to the attainment of full test pressure (54 psig).

The documentation examined included the following:

- a. Test program organization chart.
- b. Test instrumentation calibration data.
- c. Vapor Containment Structural Integrity Test and Leak Rate Test, December 22, 1974, approved by WEDCO and licensee.
- d. ANSI N45.4, 1972, American National Standard Leakage Rate testing of Containment Structures for Nuclear Reactors.
- e. UE&C Construction Checklists for Vapor Containment Air Test.
- f. UE&C Spec. 9321-05-5-6, Specification for structural Integrity Test of Containment Structure.
- g. UE&C Drawing Nos. 27,783 Rev. 2
27,793 Rev. 1
31,393 Rev. 0
- h. Con Ed. Procedure INT-TP-411.10 Isolation Valve Leakage Test.
- i. Con. Ed. Procedure INT-TP-4.11.8 Containment Penetration and Weld Channel Pressurization Test.
- j. Con. Ed. Procedure INT-TP-4.11.5 Isolation Valve Seal Water System Test.
- k. USAEC Regulatory Guide 1.18 Structural Acceptance Test for Concrete Primary Reactor Containments.
- l. Con. Ed. Test Log "VC Air Test".
- m. WEDCO - Con. Ed. Data Sheets "Leakage and/or Abnormality Inspection Sheet."

No deficiencies were identified in the Structural Integrity Test Program.

3. Automatic Transfer Circuits Between Redundant Power Sources

The inspector examined a licensee Memorandum to File, December 12, 1974, signed by Toivo Merend, which stated in part "The USAEC electrical items listed in Cahill's letter to De Young, April 2, 1973, have been inspected by the Con. Ed. Field Operations Groupcomplete and installed in accordance with latest prints and procedures. (Item 1) Elimination of DC Auto Transfer Circuits (installation of 3rd battery)." This item is resolved.

4. Siphoning Action in Irradiated Fuel Pool

The inspector examined IP3 Inspection Report PBU-1-2-75, Area Equipment Inspection - Spent Fuel Pit in Fuel Handling Bldg, which stated, "The ½" hole mentioned as being missing in inspection report 12/4/74 and in DAF - FSB-01-01 has been drilled in line 328. The placement is correct per Drawing 9321-F-25773, Sect. D-D." This item is resolved.

5. Reactor Coolant Pump Support Rebuilding Program

The inspector examined Westinghouse Report No. SD-109, Structural Analysis of Reactor Coolant Loop/Support System for IP3, which stated in part; "After completing the analyses based upon original support design, modifications were proposed to the pump columns..... The details for this re-design subsequently changed from a fin to sleeve reinforcementthus the previous analyses performed are sufficient to show structural adequacy of the Reactor Coolant System Piping." This item is resolved.

6. Loose Shaft Nut on RHR Pump

The licensee had found a loose shaft nut on an RHR pump following the initial run. This was reported to the inspector by telephone on October 24, 1974. The investigation showed, 1) that the nut had apparently not been tightened by the vendor, 2) the pump impeller was fully secure on the shaft, 3) the other RHR pump shaft nut was found to be tight. The investigation conclusions were reported by the licensee to Regulatory Operations in a letter dated November 22, 1974, signed by Mr. Carl L. Newman, Vice President. This item is resolved.

7. Containment Equipment Hatch

Prior to the start of the containment structural integrity test, the containment equipment hatch was found to be 1 inch out-of-round. The repair work consisted of torch-cutting the hatch barrel and bolt support ring inside the containment to permit jacking of the sleeve to roundness, followed by re-welding.

The inspector examined the repaired hatch assembly, and the following documentation:

- a. "IP3 Hatch Repair Procedure - Cutting and Welding Instructions", December 27, 1974, signed by Mr. J. C. Woeber, Manager of Construction Engineering.
- b. Weld procedure qualification
- c. Welders' qualification
- d. Nondestructive examiners' qualifications
- e. Test pressure gauge calibration, December 30, 1974
- f. Test channel report
- g. Radiographic reader sheets
- h. Welding electrode certification.

No deficiencies were identified. This item is resolved.