

U. S. ATOMIC ENERGY COMMISSION

DIRECTORATE OF REGULATORY OPERATIONS

REGION I

RO Inspection Report No: 50-286/74-06

Docket No: 50-286

Licensee: Consolidated Edison Company (Indian Point 3)

License No: CPPR-62

4 Irving Place

Priority: _____

New York, New York 10003

Category: B

Location: Buchanan, New York

Type of Licensee: PWR, 1050 MWe (Westinghouse)

Type of Inspection: Special, Announced

Dates of Inspection: April 5, 1974

Dates of Previous Inspection: March 6-8, 1974

Reporting Inspector: *Glenn Walton, for*
J. Allentuck
J. Allentuck, Reactor Inspector

4/19/74
Date

Accompanying Inspectors: *Glenn Walton*
Glenn Walton, Reactor Inspector

4/19/74
Date

Date

Date

Date

Other Accompanying Personnel: NONE

Date

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

4-19-74
Date

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SUMMARY OF FINDINGS

Enforcement Action

None

Licensee Action on Previously Identified Enforcement Action

Not Applicable

Design Changes

None

Unusual Occurrences

None

Other Significant Findings

A. Current Findings

1. The quality of welds on the Steam Generator supports varies widely. (Details, Paragraph 2)
2. The licensee's investigation and evaluation of welds on the Steam Generator Supports is incomplete. This matter is unresolved. (Details, Paragraph 3)
3. Inspection of the procedure by which welds are selected for examination and the way in which this selection is conveyed to QC inspectors in the field reveals no deficiencies. (Details, Paragraph 5)
4. Inspection of the NDE Procedures and the qualifications of the NDE technicians reveals no apparent deficiencies. (Details, Paragraph 9)
5. The licensee has committed to reporting defective welds for the Steam Generator Support structure in accordance with 10 CFR 50.55(e). This matter is unresolved. (Details, Paragraph 6)
6. The licensee is not presently able to assure that the "as built" supports are in accordance with the latest approved drawings. This matter is unresolved. (Details, Paragraph 7)

7. A column member of a Steam Generator support is apparently warped. This matter is unresolved. (Details, Paragraph 8)
8. Records at the site attest to comprehensive NDE of welds by the vendor at his premises. (Details, Paragraph 4)
9. The licensee's agent conducted a vendor surveillance inspection at the fabricator's premises. (Details, Paragraph 4)

B. Status of Previously Identified Unresolved Items

Not Inspected

Exit Interview

An exit interview was held at the site with the following individuals:

Consolidated Edison

- A. D. Kohler, Jr., Resident Construction Manager
- G. I. Coulbourn, Jr., Manager, IP-3 Construction
- J. Deane, QA Superintendent, Site
- D. Hartsfield, Construction Superintendent
- J. White, QA Engineer (HQ)

WEDCO

- M. L. Snow, Reliability Manager
- A. Xavier, Civil Engineer
- D. Trueblood, QA Manager
- R. S. Eunson, QC Engineer
- J. Woeber, Manager, Construction Engineer

Items discussed are summarized below:

- A. The inspector stated that the purpose of his inspection was limited to the licensee's examination and evaluation of deficient and suspect welds in the light of the licensee's commitment to report such defects in accordance with 10 CFR 50.55(e). (Details, Paragraph 6)
- B. The inspector stated that his inspection of the following items indicated no apparent deficiencies:

1. The procedure by which welds are selected for examination and the manner in which this information is conveyed to the QC inspector. (Details, Paragraph 4)
2. NDE procedures and the qualifications of NDT technicians. (Details, Paragraph 5)
3. Vendor's NDE examination of welds at his shop. (Details, Paragraph 4)
4. The licensee's vendor surveillance inspection. (Details, Paragraph 4)

C. The inspector, on the basis of this inspection, stated that the following items were outstanding:

1. The licensee's program for evaluating possibly defective welds.

The licensee stated that he had not yet completed the program for examining and evaluating the possibly defective welds but expected to have the program completed early in May, 1974. (Details, Paragraph 3)

2. The licensee's commitment to report the suspected welds in accordance with 10 CFR 50.55(e) had not been completely implemented.

The licensee stated that the reporting requirements would be fully implemented in accordance with applicable regulations. (Details, Paragraph 6)

3. There is no assurance that the "as-built" condition of the Steam Generator support structure are in accordance with the latest approved drawings.

The licensee stated that he would conduct an inspection so as to provide such assurance. (Details, Paragraph 7)

4. A column of a Steam Generator support structure appears warped.

The licensee stated that he would examine and evaluate the apparent defect and would determine whether or not a report in accordance with 10 CFR 50.55(e). (Details, Paragraph 8)

- D. The inspector stated that the licensee in his report in accordance with 10 CFR 50.55(e) would be required to address the question of assumptions made concerning the quality of the welds upon which the design was based. The determination of the adequacy of the design should take into consideration the actual as welded condition of welds when compared to the above design assumptions.

The licensee stated that the 10 CFR 50.55(e) report would address the above matters. This item is outstanding.

DETAILS

1. Persons Contacted

Con Edison

A. D. Kohler, Jr., Resident Construction Manager
G. I. Coulbourn, Jr., Manager, IP-3 Construction
J. Deane, QA Superintendent, Site
D. Hartsfield, Construction Superintendent
J. White, QA Engineer
H. Cairns, Chief, Construction Inspector
C. Loeb, Technical Assistant

WEDCO

M. L. Snow, Reliability Manager
A. Xavier, Civil Engineer
D. Trueblood, QA Manager
R. S. Eunson, QC Engineer
J. Woeber, Manager, Construction Engineer

2. Apparent Weld Defects

The inspector examined records which indicated that the 1586 welds visually inspected were categorized as follows:

a. Acceptable	1489
b. Questionable requiring surface preparation for further inspection	66
c. Unacceptable: requires repair	31

The primary cause of rejection appears to be undercutting at the weld fusion line.

3. Status of Licensee's Investigation and Evaluation

At the time of this inspection the licensee had completed examination and evaluation of only those weld members which under seismic conditions are stressed to 85% of their design capacity. Determinations of a complete program was scheduled to be complete in early May, 1974.

4. Inspection of Sun Shipbuilding Company

The inspector examined inspection reports prepared by United Engineers and Constructors (UE&C) and USTS inspectors. These reports indicated that Sun Shipbuilding had performed Magnetic Particle examinations of root pass and completed welds as required by Specification No. 9321-05-12-10, Revision dated October 15, 1969.

The UE&C report of a shop inspection on September 3, 1969 stated that MT examination was performed in accordance with ASME Section III. Specific NDT reports were checked for welding of stiffness plates to main support column #1-105-C2. These were apparently found complete and in good order. It should be noted that there was no evidence of any improper welding and weld quality appeared good.

5. Selection of Welds for Examination

On the basis of completed information derived information Steam Generator support structure members which will under seismic conditions be stressed to 85% or more of this design capacity are indicated on a schematic drawing. A Wedco structural engineer, using this drawing, directs the QC inspector to the welds to be examined.

6. Reporting in Accordance With 10 CFR 50.55(e)

The licensee, on April 3, 1974, by telephone to the AEC, made the commitment to report defective welding in the Steam Generator support structures in accordance with 10 CFR 50.55(e). This item will remain outstanding until such time as the final report will have been submitted.

7. Inspection of "As Built" Structure

The inspector informed the licensee that at another site steam generator support structures, fabricated by Sun Shipbuilding, had been found to have omitted structural members required in the final approved design.

8. "Warped" Column

The inspector identified, in Steam Generator Support #34, a column which appeared warped. The licensee indicated that an inspection and evaluation of this apparent defect would be undertaken.

9. NDE Procedures and Technicians

The inspector examined site QC inspection records which indicated that MT examination of the welds on the Steam Generator support structures was performed in accordance with Wedco Procedure NQA 4/0/12 Revision 0. NDE was by Branch Radiographic Laboratories. A record dated March 16, 1974 was examined by the inspector. NDE was approved by Wedco. NDE technicians qualifications were examined by the inspector. No apparent deficiencies were noted.