

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-247/84-10

Docket No. 50-247

License No. DPR-26 Priority -- Category C

Licensee: Consolidated Edison Company of New York, Inc.
4 Irving Place
New York, New York 10003

Facility Name: Indian Point Unit No. 2

Inspection At: Buchanan, New York

Inspection Conducted: April 9-13, 1984

Inspectors: A. A. Varela
A.A. Varela, Lead Reactor Engineer

5-29-84
date

J.P. Durr for
J.P. Durr, Reactor Engineer

5/31/84
date

NRC Contract
Personnel: M.E. Nitzel, EG&G, Idaho

S.L. Morton, EG&G, Idaho

Approved by: J.P. Durr
J.P. Durr, Chief, Materials and
Processes Section, EPB

5/31/84
date

Inspection Summary: Inspection on April 9-13, 1984 (Report No. 50-247/84-10)

Areas Inspected: Special, announced inspection by two region-based inspectors and two NRC contracto. personnel of licensee actions in response to NRC/IE Bulletins 79-02, Pipe Support Base Plate Designs Using Expansion Anchor Bolts; 79-04, Incorrect Weights for Swing Check Valves; 79-07, Seismic Stress Analysis of Safety Related Piping, 79-14, Seismic Analyses for As-Built Safety Related Piping Systems; and verification of design analyses and work performed in modifications affected by these bulletins. The inspection involved 128 inspector-hours at the Buchanan plant site and 16 inspector-hours of in-office review.

Results: No violations were identified.

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DETAILS

1. Persons Contacted

Consolidated Edison Company (CONED)

- * M. Blatt, Director Regulatory Affairs
- * A. J. Budnick, Manager Quality Assurance
- J. Carbonara, Engineer, Nuclear Licensing
- * L. J. Burbige, Generation Facilities Engineer
- S. Nadipuram, Civil Engineer
- * C. A. Nespoli, Project Manager
- * C. W. Jackson, Vice President Nuclear Power
- * R. Landwaard, Senior QA Engineer
- * R. Redding, Plant Operations
- * S. K. Sinha, Stress Analysis Engineer
- M. Whitney, Associate Engineer Regulatory Affairs

NRC

- * T. Foley, Senior Resident Inspector
- * P. S. Koltay, Resident Inspector
- * H. B. Kister, Chief, Projects Region I
- * L. J. Norrholm, Chief, Section Region I
- J. H. Raval, Reactor Engineer
- * M. E. Nitzel, EG&G, Idaho
- * S. L. Morton, EG&G, Idaho

* denotes attendees at exit meeting

2. Inspection Purpose and Scope

The purpose of this inspection was to review with cognizant and responsible licensee representatives at the plant the completeness of their responses to NRC/IE Bulletins 79-02, "Pipe Support Base Plate Designs Using Expansion Anchor Bolts"; 79-14, "Seismic Analysis for As-Built Safety Related Piping Systems"; 79-07, "Seismic Stress Analysis of Safety Related Piping,"; and 79-04, "Incorrect Weights for Swing Check Valves manufactured by Velan Eng. Corp". The scope of the inspection included a review of correspondence, engineering design, and quality assurance documentation relating to inspection, testing and modifications satisfying requirements and licensee commitments with respect to the bulletins. A walkdown inspection of the plant verified repairs and modifications relating to IEB 79-02 and 79-14.

3. Review Criteria

The latest revision of the subject bulletins was used to define required actions by the utility. In addition, NRC/IE Temporary Instructions (TI) 2515/28 and 2515/29 were used to further define inspection requirements relative to IEB 79-02 and 79-14, respectively. Applicable sections of the

Code of Federal Regulations (10CFR50) were used to provide guidance regarding legal requirements.

4. Review of Licensee Responses and Documentation of Followup Actions

The inspectors reviewed bulletin responses available from NRC files prior to the inspection. Any items requiring further discussion were noted as items to be addressed while at the plant site. Additionally, the inspection team reviewed quality assurance documentation and quality control inspection records provided by the licensee during the inspection. The material relating to IEB 79-02 consisted of procedures governing maintenance and modifications to pipe support baseplates and reports consisting of:

- Teledyne/Utility Group Generic Base Plate Analytical and Testing Program
- Ebasco Services On-Site Inspection, Field Testing and Investigation of Design Requirements
- Con Edison/Ebasco Final Report on Concrete Expansion Anchor Verification Program

The above review was augmented by review of procedures for and documentation of Ebasco testing and analysis efforts, the results of computerized baseplate analyses and modification of supports identified as MSR-1V, MSR-2V, and S2-121.

The material relating to IEB 79-07 consisted of computer analyses for the main steam, pressurizer relief and chemical and volume control piping systems. The computer runs reviewed were:

- CONED numbers 2PU, 20T, 2L0, 2TW, 2R5.

The material relating to IEB 79-14 consisted of special procedures governing the licensee walkdown efforts, original copies of marked up walkdown drawings, engineering evaluations of noncompliances and current piping system drawings for use in the inspection team's walkdown verification. The following special procedures were reviewed by the inspectors in their evaluation of licensee inspection reports on as built inspection findings and the resulting follow-up actions required:

- Technical procedure, QA-7900-1, Procedure For Inspection of Safety Related Piping and Supports
- IP2 Line Walk - Special Procedure - Repairs and Maintenance Controls

No violations were identified.

5. Verification Walkdown Inspection

A physical inspection of portions of plant systems was conducted. The purpose of this walkdown was to verify that piping systems and supports comply with as built conditions as described in the licensee's documentation and to verify repairs or modifications to piping, pipe supports and/or baseplates required by the subject bulletins. The inspection team's walkdown used current piping system drawings in their verification. The verified systems include the main steam lines from the containment building to the turbine building, the steam supply line from the main steam to the turbine driven auxiliary feedwater pumps (AFW), the AFW suction and discharge piping in the AFW pump room, the safety injection system in the high head pump room and the containment spray piping in the area of the spray pumps. All the above systems are located in the auxiliary building. The inspectors interviewed cognizant licensee engineers during the walkdown.

No violations were identified.

6. Review of Licensee Response to NRC/IEB 79-04

The inspector reviewed licensee records at the plant site relating to actions taken in response to NRC/IEB 79-04. He discussed these with cognizant licensee personnel, the discrepant weights of the Velan swing check valves in the original installation and CONED's followup investigation. Valve weights in excess of 10 percent were not installed. Calculations performed on supports containing 6" valves with a weight increase of up to 10% disclosed their capability of carrying loads without overstress. The inspector concludes that based on his review of records and discussions conducted with responsible engineers, the licensee satisfactorily responded to IEB 79-04. This confirms CONED's formal responses to this bulletin.

No violations were identified.

7. Review of Quality Assurance Verification Actions By Licensee

Evidence of CONED's QA activities in verification of A-E/contractor work performed in inspection, testing, design and plant modifications was reviewed by the inspection team. The licensee's QA Department records of their witness, monitor and/or review activities appear to meet the requirements of criterion XVIII, Audits, of 10CFR50, Appendix B. Seventeen reports of QA implementation relating to IEBs 79-02 and 79-14 activities contain inspection criteria, specific QA effort in each activity, control features, personnel involved, and findings. These records contain the signature of the person performing the verification. The NRC inspector observed from his review and evaluation of the above records, that followup action provided correction of discrepancies identified in the reports. Although the audits were not guided by a check list, the requirements of the respective NRC/IEBs appear adequately addressed in the above reports.

No violations were identified.

8. Exit Interview

The inspector met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on March 13, 1984, at the Indian Point Unit No. 2 plant. The inspector summarized the scope and findings of the inspection. The licensee acknowledged the inspector's comments. At no time during this inspection was written material provided to the licensee by the inspector.