U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Report	No.	50-247/85-18

Docket No. 50-247

License No. DPR-26

Priority Category C

Licensee:

Consolidated Edison Company of New York, Inc.

July 1-31, 1985

4 Irving Place

New York, New York 10003

Facility Name:

Indian Point Nuclear Generating Station. Unit 2

Inspection at: Buchanan, New York

Inspection conducted:

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PDR

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Inspectors:

L. Rossbach, Senior Resident Inspector B. Hillman, Reactor Engineer D. Limroth, Project Engineer

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Approved by:

Reviewed by:

Leif Norrholm, Chief, Reactor Projects Section 2B, DRP

date

Inspection Summary: Inspection on July 1-31, 1985 (Report No. 50-247/85-18) Areas Inspected: This inspection report includes routine daily inspections, as well as unscheduled backshift inspections of onsite activities, and includes the following areas: Licensee action on previously identified inspection findings; operational safety verification; maintenance; surveillance; review of monthly report; service water system inspection; followup on IE bulletin; licensee event report followup; review of completed TMI action items; medical drill; and, strike preparations. The inspection involved 132 hours by the resident inspectors.

Results: Several instances of not following procedures were found and resulted in a violation. The inspectors discussed with plant management the need for the plant staff to be observant of conditions in the plant that should be corrected, such as tag-outs and labeling.



DETAILS

1. <u>Persons</u> Contacted

Within this report period, interviews and discussions were conducted with members of the licensee management and staff to obtain the necessary information pertinent to the subjects being inspected.

2. Licensee Action on Previously Identified Inspection Findings

(Closed) Violation (247/85-10-01) Technical Specification change not properly implemented. This item occurred when an Information Feedback System Sign-off sheet was not issued with a Technical Specification change. Following discussion with the inspector, the licensee issued the sign-off sheets. The licensee also revised Directive OAD-21, "Operations Information Feedback System" to more clearly define responsibilities for the sign-off sheets. The inspector considers this item closed.

3. Operational Safety Verification

a. <u>Documents</u> Reviewed:

- Selected Operators' Logs
- Senior Watch Supervisors (SWS) Log
- Jumper Log
- Radioactive Waste Release Permits (liquid & gaseous)
- Selected Radiation Work Permits (RWP's)
- Selected Chemistry Logs
- Selected Tagouts
- Health Physics Watch Log
- b. The inspectors conducted routine entries into the protected area of the plant, including the control room, PAB, and fuel building. During the inspection activities, discussions were held with operators, technicians (HP & I&C), mechanics, foremen, supervisors, and plant management. The purpose of the inspection was to affirm the licensee's commitments and compliance with 10 CFR, Technical Specifications, and Administrative Procedures.
 - (1) On a daily basis, particular attention was directed in the following areas:
 - Instrumentation and recorder traces for abnormalities;
 - Adherence to LCO's directly observable from the control room;
 - Proper control room and shift manning and access control;

- Verification of the status of control room annunciators that are in alarm;
- Proper use of procedures;
- Review of logs to obtain plant conditions; and,
- Verification of surveillance testing for timely completion.
- (2) On a weekly basis, the inspectors confirmed the operability of a selected ESF train by:
 - Verifying that accessible values in the flow path were in the correct positions;
 - Verifying that power supplies and breakers were in the correct positions;
 - Verifying that de-energized portions of these systems were de-energized as identified by Technical Specifications;
 - Visually inspecting major components for leakage, lubrication, vibration, cooling water supply, and general operable condition; and,
 - Visually inspecting instrumentation, where possible, for proper operability.
- (3) On a biweekly basis, the inspectors:
 - Verified the correct application of a tagout to a safety-related system;
 - Observed a shift turnover;
 - Reviewed the sampling program including the liquid and gaseous effluents;
 - Verified that radiation protection and controls were properly established;
 - Verified that the physical security plan was being implemented;
 - Reviewed licensee-identified problem areas; and,
 - Verified selected portions of containment isolation lineup.

c. <u>Inspector Comments/Findings</u>:

The unit operated at approximately 100% power throughout this inspection period except for short power reductions due to testing, condenser maintenance, spurious turbine control valve movement, and expiration of a 24-hour limiting condition for operation.

During a plant tour, the inspectors observed that seismic restraints on the service water pumps were degraded. The licensee's initial review was not able to confirm the seismic design requirements of these restraints, but their continuing review did turn up early construction records on them. Since the restraints were in an unanalyzed condition, the licensee declared the service water pumps inoperable. Emergency repairs of the restraints were completed before the 8-hour limiting condition of operations (LCO) expired. The licensee is performing an analysis of the service water pumps in the as-found condition to determine if they were operable for seismic conditions. A review of work packages showed that MWR #4402 was issued on #26 service water pump on November 20, 1975, due to high pump vibrations. The restraint was cut back and vibrations returned to normal. No records of the other restraints being cut back were found; they may have been modified at the same time as #26. This is an unresolved item. (85-18-01)

On July 15, the licensee entered a 24-hour LCO to perform maintenance on #21 containment spray pump. Difficulties were experienced in aligning the replacement pump and the LCO expired. The licensee began reducing power, eventually reaching 93%, when the LCO was terminated following a successful post-maintenance test of the pump. The unit was returned to 100% power.

4. Maintenance

The inspector reviewed the completed maintenance activities listed below. Portions of some of these activities were observed by the inspector. The inspector verified that:

- The equipment was tagged out in accordance with licensee's procedures;
- Approved procedures, adequate to control the activity were used;
- Q/C hold points were observed;
- Properly certified materials were used; and,
- The equipment was properly tested prior to return to service.

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The following maintenance activities were reviewed:

W.O. 22343, Replace Containment Spray Pump #21 (Emergency Repair) MWR 22027, Replace IVSWS Valve SOV 3510 MWR 21391, Repair Grounded Feed to #24 Service Water Pump MWR 17327, Replace #24 Service Water Pump and Motor MWR 11721, Replace Position Indicator on Valve SWN-5

No violations were identified.

5. Surveillance

a. Surveillances Reviewed:

PT-Q35 Containment Spray Pump PT-M22 Station Batteries PI-BW1 Containment Inspection

b. Inspector Findings:

The inspectors directly observed the performance of portions of the above-listed tests, or reviewed completed surveillance procedures to ascertain the following:

- That the instrumentation used was properly calibrated;
- That the redundant system or component was operable, where required;
- That properly approved procedures were used by qualified personnel;
- That the acceptance criteria were met;
- That proper reviews, by the licensee, had been conducted; and,
- That the results of the tests met Technical Specification requirements.

The <u>finspectors</u> also verified that the systems were properly returned to service following the above-listed tests.

No violations were identified.

6. Review of Monthly Report

The Monthly Operating Report for June 1985 was reviewed. The review included an examination of significant occurrence reports to ascertain that the summary of operating experience was properly documented.

The inspector verified through record reviews and observations of maintenance in progress that:

- The corrective action was adequate for resolution of the identified item; and,
- The operating report included the requirements of TS 6.9.1.7 and 8.

The inspector has no further questions relating to the report.

7. Service Water System Inspection

An inspection was performed on the above system as part of the Probabilistic Risk Assessment (PRA) Applications Program for Inspection at Indian Point 2. This program is designed to develop a methodology for inspection that will use PRA input to assist the NRC's IE office in directing available resources toward risk significant items. The first inspection in this program was reported in Inspection Report 85-10.

The inspectors reviewed applicable checkoff lists, prints, surveillances, work orders, and technical specifications for the service water system. The inspectors also performed a limited system walkdown based on reviewing the major components important to system operability as identified by the PRA Applications Program.

The inspectors found that the service water system was lined up so that it was capable of performing its intended safety function. However, while doing the system walkdown, the inspectors noted three items which had not been controlled in accordance with plant procedures. This is a violation. (50-247/85-18-02). The first item was caution tags (with jumper identification numbers) were found on the five breakers for valves SWN-51-1 through 5 on motor control center 26BB. These tags were not logged in accordance with plant procedures. The inspector notified the watch and new caution tags were quickly issued and properly logged. The second item was several valves (SWN 41's, SWN 38, SWN 39) were not tagged and uniquely identified in accordance with plant procedures. Replacement tags have been ordered. The third item was the Central Control Room (CCR) drawing index posted in the CCR was not the latest revision. The current revision of this index has since been posted.

In addition to the above items, the inspector discussed the following with the licensee: Double tags were found on a few service water valves servicing the instrument air system. One was a new tag correctly identifying the valve, but the other was an old tag, apparently using an old identification system. Old tags were not routinely removed when the new tagging system went into effect. Although the inspectors had no problem identifying the current tag, they questioned from a human factors standpoint, the practice of not removing old tags. The inspectors also noted that the pipe penetration and service water valve mezzanine have poor ventilation. The resulting high temperatures limit the amount of work that can be done in the area, and necessitate frequent relief breaks for workers. The licensee was aware of the problem, and is considering ventilation modifications. Also, a project to adjust and balance the existing system is out for bid.

8. Followup On IE Bulletin

(Closed) 79-BU-25 This bulletin, "Failures of Westinghouse BFD Relays in Safety-Related Systems," was previously closed in Report 83-11. The inspectors updated their review and verified that an acceptable surveillance procedure (PT-M14A) has been implemented for relays 1-MT1 and 1-MT2. Also, the sticking problem identified in Bulletin 79-25 has not been encountered. The model relay identified in Bulletin 79-25 has been replaced with a newer model relay. The inspector has no further questions on this item and the bulletin remains closed.

9. Licensee Event Report Followup

The inspector reviewed the following LER's to determine that reportability requirements were fulfilled, immediate corrective action was taken, and corrective action to prevent recurrence had been accomplished in accordance with Technical Specifications.

85-004, Actuation of Reactor Protection System. The inspector reviewed the licensee's actions with regard to this event in Report 85-07. The inspector considers this item closed.

84-025, Safety Injection (SI) Pumps Malfunction. This LER was closed in Inspection Report 85-01, but was reviewed again because the inspector prepared an Abnormal Occurrence Report on the event. Also, in late June, the licensee found gas in the SI pumps and vented the gas off. In their investigations, they found valve SOV 3510 in the isolation valve seal water system (IVSWS) leaking nitrogen. The IVSWS normally injects nitrogen for sealing after an accident between valves in the SI system. The licensee closed the stop valve on the IVSWS nitrogen header to eliminate this as a source of gas to the SI system. The licensee continues to vent the SI pumps daily. No additional gas has been found. Also, the licensee samples the SI pump suction daily and drains it upon detecting a high boric acid concentration. The licensee is expecting to submit a Technical Specification request to NRC in August requesting approval to remove the BIT tank, the source of the high concentration of boric acid.

No violations were identified.

10. <u>Review of Completed TMI Action Items</u>

The inspector conducted an evaluation of TMI action plan procedure, program and hardware requirements that are closed as of this date. The inspector conducted the evaluation to determine whether problems have been experienced subsequent to the item being closed (e.g. maintaining operability, inadequate maintenance, training or procedures.) The inspector reviewed the following closed items.

I.A.1.1. Shift Technical Advisor - The inspector compared the present STA training program with the INPO guidelines provided in NUREG 0737 and found the programs in agreement. The inspector also reviewed the Indian Point Station Training Manual, Section 18, "Shift Technical Advisor Training," Revision 3, 4/1/85, lesson plans used in the training program and an individual regualification of two STA's.

I.A.1.3. Shift Manning - The licensee implemented administrative procedures limiting the scheduling of overtime for the plant staff who perform safety-related functions (e.g. senior reactor operators, reactor operators, health physicists, auxiliary operators, I&C technicians, and key maintenance personnel).

The inspector reviewed the following Administrative Directives and validated that the appropriate controls have been implemented.

OAD-13	Revision	4	Dated	4/30/82
MAD-2	Revision	3	Dated	5/20/83
I&C-AD-13	Revision	4	Dated	12/13/83
EHS-3.006	Revision	0	Dated	7/31/85

I.A.2.1.4. Upgrading of RO and SRO Training Qualification - By May 1, 1980, the licensee had upgraded the RO-SRO license training to include:

Training in heat transfer, fluid flow and thermodynamics;

 Training in the use of installed plant systems to control or mitigate an accident in which the core is severely damaged; and,

Increased emphasis on reactor and plant transient.

The inspector reviewed the Indian Point training manual, Section 8, Revision 10, and ascertained that the level of instruction in these areas was adequate.

I.C.2. Shift and Relief Turnover Procedures - The licensee's OAD-9, Revision 6, requires the shift supervisor review and sign a turnover document that indicates current system parameters and operations in progress. The inspector witnessed a shift turnover that adequately employed the use of this document. I.C.4. Control Room Access - The licensee addresses control room access in OAD-9, Revision 6. During the performance of this review, the inspector noted that the SRO always maintained control of access to the plant control panels area.

I.C.5. Procedures for Feedback of Operating Experience to Plant Staff -The inspector reviewed SAO 120, Revision 2, "Nuclear Plant Safety Information Handling System." All pertinent information is disseminated to the plant staff by the Director, Regulatory Affairs. The inspector noted the experience and qualification of the Director's staff was more than adequate to insure proper dissemination of information.

II.B.2. Design Review of Plant Shielding - The inspector reviewed documentation outstanding from Inspection Report 83-14 to insure that the item had been satisfactorily closed out initially. Modifications resulting from this item were randomly sampled to determine whether problems have been experienced since completion. No problems were noted.

II.B.4. Training for Mitigating Core Damage - This training had been completed initially as a one-time effort to satisfy the October 1, 1981 order. The salient elements of this training have been incorporated into annual re-qualification training curricula. The inspector had no further questions relating to this item.

II.D.3. Valve Position Indication - The Pressurizer PORV's and block valves are alarmed and an open/closed indication is displayed in the control room. Acoustic and temperature devices have been installed on downstream piping. The inspector verified that these devices had current valid surveillance tests. Interviews with maintenance personnel indicated no unusual maintenance difficulty with these components.

II.F.1.2. Auxiliary Feedwater System - Indication and Flow - The auxiliary feedwater system was reviewed per confirmatory orders (180 day requirement). Documentation of the safety grade commitment can be found in Inspection Report 80-15. The inspector verified that the licensee was current on system surveillances and by conducting a walkdown of the system, determined it was adequately being maintained.

II.F.3.1. Emergency Power for Pressurizer Heaters - The inspector verified that the pressurizer heater power supply is split between the redundant diesels for heaters in various banks.

II.F.4.2. Containment Isolation Dependability - In a letter from S. Varga (NRC) to P. Zarakas (Con Edison), dated August 29, 1980, the as-built containment isolation system was found acceptable. However, the inspector did review the test of process radiation monitors, PT-M-10A, and noted checks for purge valve closures are still included.

II.F.2.1. Instrumentation to Detect Core Cooling

- a. Subcooling meter The inspector reviewed the surveillances required for the subcooling meter system and noted that they were correct. The inspector also questioned control room personnel on its operation and indication. All responses indicated an indepth knowledge of the meter's function and purpose.
- b. Level Indication The inspector reviewed the surveillances required for the reactor vessel level indication system and noted that they were correct. The licensee's I&C personnel noted that the system has a generic overheating problem in the system control cabinet. At present, the licensee maintains cabinet cooling by forced ventilation, and is presently studying a long term solution to the problem.

II.G.1. Emergency Power Supplies for Pressurizer Relief Valves, Block Valves and Pressurizer Level Indication - The emergency power supplies for the pressurizer relief valves, block valves and level indication were redundant. Power was through off-site supplies and the emergency diesel generators.

11. <u>Medical Drill</u>

The inspector observed portions of the annual radiological medical emergency drill. The drill demonstrated the licensee's ability to provide emergency medical treatment for a contaminated injury. It also demonstrated the licensee's ability to evacuate the contaminated and injured person to a hospital for further treatment. The inspector noted that the medical treatment and decontamination room lacked ventilation and cooling. This would subject an injured person to additional stress due to heat. The inspector discussed this observation with the licensee.

12. Strike Preparations

The possibility existed for a strike by Local 1 of the Utility Workers of America on July 27, 1985, due to negotiations not being completed on wage adjustments for the last year of their contract. An inspection was conducted of the licensee's strike preparations and is reported separately in Report 85-17. The inspectors also prepared to provide 24 hour coverage of a strike. On July 26, a tentative agreement was reached between the licensee and Local 1 of the Utility Workers of America. The agreement has gone to the rank and file for approval. The inspectors will resume strike preparations if another strike threat develops.

13. Unresolved Items

Unresolved items are those for which further information is required to determine whether the item is acceptable or a violation. An unresolved item is discussed in Paragraph 3.

14. <u>Exit</u> Interview

At periodic intervals during the course of the inspection, meetings were held with senior facility management to discuss the inspection scope and findings. An exit interview was held with licensee management at the end of the reporting period. The licensee did not identify any 2.790 material.