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U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-286/84-13

Docket No. 50-286

License No. DPR-64 Priority -- Category C

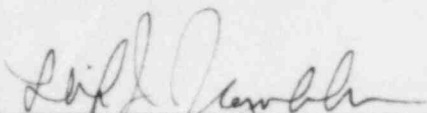
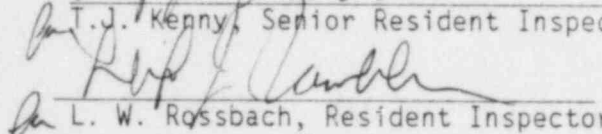
Licensee: Power Authority of the State of New York
10 Columbus Circle
New York, New York 10019

Facility Name: Indian Point Nuclear Generating Station, Unit 3

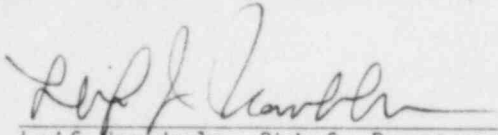
Inspection at: Buchanan, New York

Inspection conducted: May 16, 1984 to June 15, 1984

Inspectors:

	<u>6/28/84</u>
T.J. Kenny, Senior Resident Inspector	date
	<u>6/28/84</u>
L. W. Rossbach, Resident Inspector	date

Approved by:

	<u>6/28/84</u>
Leif Norrholm, Chief, Reactor Project Section 2B, DPRP	date

Inspection Summary:

Inspection on May 16, 1984 to June 15, 1984 (Inspection Report 50-286/84-13)

Areas Inspected: Routine onsite regular and backshift inspection of plant operations including shift logs and records; operational safety verification; maintenance; surveillance; review of monthly report; design changes; modifications, and tests and experiments; investigation of an allegation; information meeting with local official; review of procurement, receipt and storage; followup on I.E. bulletin; and licensee event reports. The inspection involved 145 inspector hours by the resident inspectors.

Results: Several regulatory concerns have been closed out, with respect to an allegation made and documented in report 84-07. Another allegation was made and is discussed in Section 8. Otherwise the unit has been operational throughout this period, except for brief periods as delineated in Section 3 of this report.

DETAILS

1. Persons 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) Unresolved Item (50-286/84-07-02) Purchasing of Category "M" materials (materials for systems important to safety.) The inspector reviewed revised Procedure AP 26.1, "Procurement" and has determined that the procedure clearly delineates the method of purchasing Category "M" materials in accordance with Branch Technical Position BTP 9.5.1, "Guidelines for Fire Protection for Nuclear Power Plants."

(Closed) Inspector Follow Item (50-286/84-07-03) Inspector review of Procedure AP 26.1 (see above), and a new Procedure QAI 1.1, "Fire Protection Quality Assurance Plan." The inspector has reviewed these procedures and concludes that AP 26.1 more clearly defines the scope of purchasing Category "M" materials and QAI 1.1 clearly defines the portions of the fire protection system that are classified Category I and Category M. These procedures both use BTP 9.5-1 as a reference and conform to that position.

(Closed) Inspector Follow Item (50-286/84-07-04) Station procedures to be audited for use of Category "M" materials. The inspector has reviewed station audit 4-16 and noted that the audit was conducted in accordance with approved procedures, and that the audit delineated the necessary changes to be made to the applicable station procedures. The inspector also reviewed changes that were made to several of these procedures and noted that the remaining procedures were in the process of being changed. The inspector has no further questions on this item.

3. Operational Safety Verification

a. Documents Reviewed:

- Selected Operators' Logs
- Shift Supervisors Log
- Selected Shift Turnover Checklists
- Jumper Log
- Radioactive Waste Release Permits (liquid & gaseous)
- Selected Radiation Exposure Authorizations (REA's)
- Selected Chemistry Logs
- Selected Tagouts
- Health Physics Watch Log

b. The inspector(s) conducted routine entries into the protected area of the plant, including the control room, PAB, fuel building, and con-

tainment (when access is possible.) 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 inspector(s) confirmed the operability of a selected ESF train by:
 - Verifying that accessible valves 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.

Systems Inspected:

- Blowdown System
- Component Cooling
- Service Water
- Auxiliary Feedwater

3. On a biweekly basis, the inspector(s):

- 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. Inspector Comments/Findings:

The unit operated at 100% power, except as delineated below, during this inspection period. The inspector monitored selected phases of the unit's operation, and determined that the areas inspected did not constitute a health and safety hazard to the public or plant personnel.

May 23-25. Repairs to #33 component cooling pump were conducted. See Maintenance Section for details.

May 29. At 9:32 a.m., the main steam stop (MS-1) for #33 steam generator failed shut which resulted in a turbine trip/reactor trip. The shutting of the valve was due to a latching pin slipping from the engage position on the trip solenoid. The resident inspector observed the trip from the control room and noted that all systems functioned normally except the tripping of #31 reactor coolant pump (RCP) during the transfer of the electrical busses. The reactor coolant pump trip was due to a defective trip relay which was replaced and tested. The associated RCP electrical circuits were tested satisfactorily, and the pump was returned to service.

May 30. At 4:10 a.m., the unit was returned to service.

June 11. At 8:53 a.m., the unit experienced a 10 MWe turbine runback due to a spurious temperature signal to channel 2 of over power delta T. The faulty signal was found in the resistance to voltage converter which was subsequently replaced, and the unit was returned to 100%.

No violations were identified.

4. Maintenance

- a. The inspector selected completed maintenance activities listed below to ascertain the following:
- The activities did not violate a limiting condition for operation;
 - That redundant components were operable;
 - That equipment was tagged out in accordance with licensee approved procedures;
 - That approved procedures, adequate to control the activity, were being used by qualified technicians;
 - That Q/C hold points were observed and that materials were properly certified;
 - That radiological controls were proper and in accordance with licensee approved radiation exposure authorization; and,
 - That the equipment was properly tested prior to return to service.
- 1) Boric Acid Heat Trace Circuit Repair
- Documents Reviewed:
- Work Request 4345
 - Check List
 - Retest
- 2) Diesel Generator #33 Air Compressor Belts Repair
- Documents Reviewed:
- Work Request 4425
 - Check List
 - Retest
- 3) CCW Pump #33 Seal:
- Documents Reviewed:
- Work Request 4605
 - Work Sheet
 - Step List
 - Seal Material Certifications
 - Retest

4) Replace #33 MSIV Vent Valve

Documents Reviewed:

- Work Request 3835
- Material Substitution Evaluation
- Work Sheet
- Step List
- Valve Material Certification
- Weld Data Checklist
- Weld Material Requisition
- Welder Qualification
- Retest

No violations were identified.

5. Surveillance

a. Documents Reviewed:

- 3PT-W5 Verification of Valve Positions for Emergency Cooling
- 3PT-V12 Power Range Permissives and Trip
- 3PT-M12 Turbine Electrical Overspeed Analog
- 3PT-M3 Reactor Coolant Flow Analog Channel Functional Test

b. Inspector Findings:

The inspector(s) directly observed the performance of portions of the above-listed tests, and 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 the test data were accurate and complete;
- That proper reviews, by the licensee, had been conducted; and,
- That the results of the tests met Technical Specification requirements.

The inspector(s) also verified that the systems were properly returned to service following the above-listed tests, by observing actual valve and switch positions or position indication in the control room.

No violations were identified.

6. Review of Monthly Report

a. Monthly Operating Report

The Monthly Operating Report for April, 1984 was reviewed. The review included an examination of selected maintenance work requests, and an examination of significant occurrence reports to ascertain that the summary of operating experience was properly documented.

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

- The corrective action was adequate for resolution of the identified items; and,
- The operating report included the requirements of TS 6.9.1.5.

The inspector(s) have no further questions relating to the report.

7. Design Changes, Modifications, and Tests and Experiments

a. Documents Reviewed:

- AP-12 Modifications
- AP-13 Jumper Control
- AP-25.1 Request for Engineering Services
- AP-25.2 Classification and Evaluations (of systems)
- AP-32 Reclassification of Structures, Systems and Components
- Technical Specifications, Section 6
- QA Procedure Manual
- ANSI N45.2.11-1974 QA Requirements for the Design of Nuclear Power Plants
- Regulatory Guide 1.120 Fire Protection Guidelines for Nuclear Power Plants
- Chapter 17 FSAR Update

b. Inspector Findings:

The licensee has recently extensively revised procedures concerning category I, non-category I and systems important to safety (Category M), with regard to modifications and purchasing of materials for these systems. The inspector reviewed the above documents to determine if the recent revisions delineate the concerns of the Commission, and that the modification program implements the QA program, 10CFR50.59, and is in conformance with regulatory requirements.

In his review, the inspector verified that:

1. Methods were in place to:

- Initiate the request to change a system with a form that is used to document the change;
 - Assure that proposed changes do not involve an unreviewed safety question, and,
 - Assure that applicable guidelines for safety related systems and systems important to safety are included in design and procurement documents.
2. Procedures and responsibilities for modifications control have been established including:
- Identification of the person responsible for performing the design work;
 - Identification of the organizations or individuals responsible for:
 - Document changes;
 - Print upgrade to as built condition;
 - Changes to training material;
 - Changes to plant procedures; and,
 - Approvals of changes to the design change.

The inspector determined that the changes made to the above-listed documents have improved the methods of incorporating design changes to the facility and that the regulatory requirements have been satisfied.

No violations were identified.

8. Investigation of an Allegation

Background:

- a. A concerned employee called the Region I office with several concerns related to the blowdown system from the steam generators. The allegations were:
1. Improper repairs have been made to isolation valves on the steam traps of the steam generator blowdown lines upstream of the isolation valves.
 2. Repairs are not being documented on MWR's (Maintenance Work Requests.)

3. Non-qualified welders are being used to make these repairs.
4. That Edwards Valves were being replaced by Con Val Valves.

The alleger did not give any specifics as to the time or the specific area of his concerns.

Findings:

1. The inspector researched the blowdown system history and reviewed the work requests relating to the blowdown system with the following results:
 - No valves have been replaced in the blowdown system since the original design;
 - There are no steam traps in the blowdown system;
 - The only repairs to valves upstream of the isolation valves occurred during the outage in January of this year when the stems were replaced in several BD-1 and BD-2 valves. This was documented in the machinery history including documentation of repair parts. Additionally, recently one BD-1 valve was repaired by the furminite process. A completed procedure existed for this evolution;
 - The inspector noted that all category I work involved the QA department; and,
 - Currently weld repair is being performed on the blowdown piping in a non-category I area.
2. The inspector reviewed welders' qualification records with the following results:
 - All welders currently employed by the licensee are qualified in either A1 or B1 which qualifies them to weld carbon steel to carbon steel. (Material used in the blowdown system.)
 - There have not been any contractor welders on site since January.
3. The inspector had discussions with engineering and maintenance department engineers with respect to the replacement of valves in the blowdown system or any other system with Con Val valves. The following are the results of that discussion:
 - The blowdown system valves have not been replaced. (The inspector walked down the system outside of containment and verified that the system is as designed.)

- By review of documents and inspection of Con Val valves, the inspector concluded that Con Val valves are of at least equal quality to Edwards valves. Additionally, the inspector could not find any evidence of Edwards valves being replaced with Con Val valves. Con Val valves have been installed in non-category I systems at various places within the plant. (e.g., in the replacement of valves in the moisture separator reheat system.)

The inspector concludes that no safety concerns were identified. The allegations were not substantiated.

9. Information Meeting With Local Official

Recently, the Village of Buchanan elected a new mayor. The resident inspectors arranged a meeting with the mayor to discuss the NRC's mission at the Indian Point Stations. During the course of the meeting, the inspectors discussed:

- The safety aspects of the nuclear units, their operation, and the current plant status;
- The communications available to the local officials and the NRC resident inspectors; and,
- The Public Document Room location and contents.

The mayor was well informed and had only questions about waste storage at the site and the transportation of waste products from the site. The inspectors assured the mayor that inspections were conducted in this area both on the site and at the facility that receives the waste products. The mayor was also informed of the pre-submittal, to the state, of the route involved in the shipment of the waste.

The inspectors assured the mayor that they were always available for any questions.

10. Review of Procurement, Receipt and Storage

a. Documents Reviewed:

- 10CFR50, Appendix B
- ANSI N45.2.2 (1978)
- ANSI N45.2.13 (1976)
- FSAR Chapter 17.2, QA Program
- Administrative Procedure 26.1, Procurement
- Administrative Procedure 28, Control and Identification of Purchased Materials
- QA Procedure 7.3, Receiving Inspection
- QA Procedure 15.2, Control of Nonconforming Material, Parts or Components

- Warehouse Instruction #1
- Selected Purchase Orders and Certifications

b. Findings:

The inspector reviewed the above documents, discussed the procurement, receipt, and storage program with licensee staff, and toured an onsite and an offsite warehouse to verify the following:

- Administrative controls have been established for procurement and receipt of safety-related items;
- Administrative controls have been established for review and approval of procurement documents and for specifications differing from the original design documents;
- Written requirements have been established for conducting receipt inspections of all incoming safety-related materials;
- Materials are examined for conformance with requirements specified on original procurement documents;
- Documentation of receipt inspections is prepared and retained;
- Administrative controls have been established for disposition of acceptable, nonconforming, and conditional release items received on site;
- Administrative controls have been established for onsite and offsite storage of safety-related items; and,
- Responsibilities are assigned for implementing the above items.

The inspector selected a sample of safety-related items that have been received onsite and verified that procurement, receipt, disposition and storage of the items was in accordance with the controls identified above. The inspector also verified that materials tagging allows tracing of the items back to purchase documents, receipt documents, and quality certification documents.

No violations were identified.

11. Followup on IE Bulletin

The inspector reviewed IE Bulletin 83-08, "Electrical Circuit Breakers With an Undervoltage Trip Feature In Use In Safety Related Applications Other Than the Reactor Trip System," and the licensee's response to the bulletin dated March 19, 1984. The inspector determined that the licensee's treatment of the bulletin was according to NRC regulations. The inspector reviewed the mechanism used to trip the circuit breakers used at the site

(Westinghouse Model DS-416), and verified that the DS-416 breakers do not use an undervoltage tripping device to trip.

The inspector has no further questions on this bulletin.

12. Licensee Event Reports

a. In-Office Review of Licensee Event Report

The inspector reviewed an LER submitted to the NRC:RI office to verify that details of the event were clearly reported, including the accuracy of the description of cause and adequacy of corrective action. The inspector determined whether further information was required from the licensee, whether generic implications were involved, and whether the event warranted onsite followup.

The following LER was reviewed:

84-007-00 Channel #41 Nuclear Power Range Instrument Drift

b. Onsite Licensee Event Followup

The LER listed above was reviewed to verify that the reporting requirements of Technical Specifications and Station Administrative Procedures had been met, that appropriate corrective action had been taken, that the event was reviewed by the PORC (Plant Operating Review Committee), and that continued operation of the facility was in conformance with the Technical Specification limits. The inspector noted that the instrument drift was only in the upper Delta I limits.

13. Exit 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 on June 15, 1984 to discuss this report period.