U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

Region I

Report No. 50-286/78-31

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

Inspection at: Buchanan, New York

Inspection conducted: November 26 - December 23, 1978

Inspectors: for D. F. Johnson
T. Rebelowski, Resident Reactor Inspector — 2/9/79 date signed

_____ date signed

_____ date signed

Approved by: R. C. Jamis
R. R. Keimig, Chief, Reactor Projects
Section No. 1, RO&NS Branch — 2-9-79 date signed

Inspection Summary:

Inspection on November 26 - December 23, 1978 (Report No. 50-286/78-31)
Areas Inspected: Routine inspection by the resident inspector of plant operations including: tours of the facility; observation of maintenance outage activities; observations of physical protection in the areas of access control, barriers, search, escort, communications and compensatory measurements; and, review of monthly operating reports. The inspection involved 55 inspector hours on site by the NRC resident inspector.
Results: Of the four areas inspected, no items of noncompliance were found in two areas; two apparent items of noncompliance were found in two areas (Infraction - failure to maintain limiting condition of operation as required by Technical Specification 3.2.B.6; Infraction - failure to control vital area as required by the licensee's security plan).

Region I Form 12
(Rev. April 77)

7908080178

500 220

DETAILS

1. Persons Contacted

Mr. M. Albright, I&C Superintendent
Mr. J. Bayne, Resident Manager
Mr. S. Cantone, Superintendent of Power
Mr. J. Kelly, Radiological and Environmental Services Superintendent
Mr. J. Kilduff, Assistant to Resident Manager
Mr. N. Passman, Reactor Analyst Supervisor
Mr. E. Tagiomonte, Operations Superintendent
Mr. S. Zulla, Technical Services Superintendent
Mr. B. Weiser, Security and Safety Superintendent

The inspector also interviewed other licensee employees including members of operations, maintenance, health physics, security and quality assurance staffs.

2. Maintenance Outage

a. General Items

The licensee entered into an unscheduled maintenance outage on December 7, 1978 due to the identification of primary to secondary leakage of approximately 0.24 gpm in one of the four plant steam generators. One tube in No. 33 steam generator was found to be leaking and was plugged. Nondestructive examination of 28 surrounding tubes was accomplished and minor denting was indicated. The plant was returned to power on December 14, 1978.

On December 15, 1978, the unit experienced a reactor trip due to low steam generator level caused by the loss of No. 32 boiler feed pump. The reason for the pump failure was investigated by the licensee but the cause of the trip could not be determined. The plant was returned to power on December 19, 1978.

b. Steam Generator No. 33 Repairs

The primary to secondary system leakage on December 7, 1978 was initially thought to be due to a tube leak in Steam Generator No. 32. After cooldown and draining of primary side of No. 32 Steam Generator, a hydrostatic test did not indicate tube leakage. Approximately 80 tubes were eddy current tested and it was determined that the leakage was not associated with the No. 32 Steam Generator. Further investigation revealed that the lines for the steam generator's secondary sampling and blowdown were not according to plan.

The licensee corrected the sample line errors and subsequently determined that Steam Generator No. 33 was the generator that had exhibited the leakage. The licensee found one tube leak (Row 44, Column 56 at the second support plate in the hot leg side). Twenty eight tubes surrounding the leaking tube were inspected by eddy current testing.

The results of the investigation into the crossed sampling lines had not yet been presented to the inspector at the conclusion of this inspection. Pending receipt and review of this matter at a subsequent inspection, this item is unresolved (286/78-31-01).

The reduction of eddy current data for tubes examined in steam generators No. 32 and No. 33, (approximately 98 tubes total) is not yet available for review. Pending receipt and review of this material at a subsequent inspection, this item is unresolved (286/78-31-02).

c. Licensee Quality Assurance Program

The licensee's Quality Assurance Engineering staff monitored the activities of the outage in the area of the steam generator repair. Areas reviewed included procedures used for explosive plugging, cleanliness of areas and control of field activities. Work areas were reviewed on a continuous basis by members of the QA staff.

No items of noncompliance were identified and the inspector has no further questions at this time.

3. Review of Plant Operations

a. Shift Logs and Operating Records

(1) The inspector reviewed the following logs and records:

(a) Senior Reactor Operator Logs (November 25, 1978 to December 20, 1978)

(b) Watch Supervisor's Log (November 25, 1978 to December 20, 1978)

(c) Conventional Nuclear Plant Operator Log (November 22, 1978 to December 20, 1978)

(d) Night Order Book

(e) Jumper Log to December 20, 1978

(f) Significant Occurrence Reports (November 24, 1978 to December 20, 1978)

(g) Flux Difference Log Sheet (November 25, 1978 to December 20, 1978)

(h) Reactor Coolant Leakage Surveillance Sheet (November 24, 1978 to December 20, 1978)

(i) Rod Position Indication Log (November 24, 1978 to December 20, 1978)

(j) Thermal Power Calculation Sheet (November 24, 1978 to December 20, 1978)

(k) Containment Leakage Calculation Sheet (November 24, 1978 to December 20, 1978)

(l) Quadrant Power Tilt Calculation Sheet (November 24, 1978 to December 20, 1978)

(m) High Radiation Area Locked Gate List (November 25, 1978 to December 20, 1978)

(n) Control Room Log Sheet (November 25, 1978 to December 20, 1978)

(o) Conventional Area Log Sheet (November 22, 1978 to December 20, 1978)

(p) Nuclear Area Log Sheet (November 25, 1978 to December 20, 1978)

(q) Nuclear Plant Operator Log (November 25, 1978 to December 20, 1978)

(2) The logs and records were reviewed to verify:

(a) Log Book reviews are being conducted by the staff;

(b) Instructions in the Night Order Book did not conflict with Technical Specifications;

(c) Jumper Log entries did not conflict with Technical Specifications;

(d) Significant Occurrence Reports confirm compliance with Technical Specification reporting and LCO requirements; and,

(e) Log book entries involving abnormal conditions are sufficiently detailed.

(3) The inspector used the following acceptance criteria for the above items.

(a) Technical Specifications.

(b) Licensee Procedures:

-- AP-8, "Reporting of Significant Occurrences;"

-- AP-13, "Jumper Control;"

-- AP-21, "Conduct of Operations;"

-- AP-21.4, "Log Keeping;" and,

-- AP-21.6, "Night Order Book."

(c) Findings:

The inspector had no questions/comments on the above inspection items except as described below: The licensee's conventional nuclear plant log sheets indicated a minor fire at the screen well due to the ignition of oil caused by the breakage of an oil sight glass on the No. 34 Circulating Water Pump on December 15, 1978. The fire caused minor electrical damage to the pump's circuit breaker. The licensee was requested to notify the resident inspector of any fires in the plant area in a timely fashion. The licensee's repairs were accomplished immediately. The inspector had no further questions regarding the occurrence.

b. Plant Tour

(1) The inspector toured accessible areas of the plant at various times during the inspection and took independent readings on safety related equipment. The tours included the following areas:

(a) Control Room

(b) Primary Auxiliary Building

(c) Turbine Building

(d) Transformer Yard

(e) Intake Structure

(f) Security Control Building

(g) Auxiliary Boiler Feed Building

(h) Diesel Generator Rooms.

(2) The following areas were observed:

(a) Radiation protection controls; step-off pads, storage/disposal of protective clothing, and control of high radiation areas were observed for adequacy in all areas toured.

(b) Fluid leaks: all areas toured were examined for evidence of excessive fluid leakage.

(c) Piping vibration: all areas toured were observed for evidence of excessive piping vibration.

(d) Control Room and Nuclear Plant Operator station manning: these areas were observed to determine compliance with regulatory requirements.

(e) Selected valve positions/equipment start positions.

(f) Discussions with watch personnel pertaining to reasons for selected lighted annunciators: the Watch Supervisor was questioned to determine if he was knowledgeable of the reasons for all lighted annunciators.

(g) Seismic restraint oil levels: observations of plant hydraulic restraints was performed.

(h) On a routine basis, monitoring instruments have been osberved in the control room, the primary auxiliary building and other toured areas.

(i) Plant housekeeping: conditions/cleanliness.

(j) LSSS/LCO: equipment status or operating parameters were observed for conformance to the LSSS/LCO requirements.

(k) Shift turnovers of control room operators and watch supervisors were observed on regular and back shifts.

(3) The inspector used the following acceptance criteria for the above items:

(a) Technical Specifications Table 6.2-1.

(b) 10 CFR 50.54(k).

(c) 10 CFR 20.203.

(d) Licensee Procedures:

-- AP-10, "Work Permits, Radiation Exposure Authorizations, Operating Orders."

-- AP-21.5, "Confines of the Control Room."

-- AP-27.2, "Housekeeping."

-- AP-27.3, "Fire Protection."

(e) Inspector Judgement.

(4) Tour Findings

(a) Heat Tracing Anomaly

During a review of the heat tracing system, the inspector noted that Circuit No. 63 indicated a temperature of 78°F. Circuit No. 63 monitors Line No. 204 from the Boric Acid Flow indicator to the manual boration isolation valve, No. 293.

The Technical Specification 3.2.B.6 states that two channels of heat tracing shall be operable for the flow path from the boric acid tanks to the reactor coolant system which includes line No. 204. Operability is contingent upon maintaining the line at a minimum temperature of 145°F in accordance with SOP EP-7. Review of the licensee's Standard Operating Procedure, EL-7, "Electrical Heat Tracing System Operations," Rev. 0, approved March 8, 1978, references

a deleted Plant Operating Instruction POI-3 (which contained specific operator action in the event of an anomalous condition). The licensee stated that action would be initiated to provide adequate instructions to the operators. However, it was not apparent in this instance that the operators recognized the nonconforming condition.

Failure to identify the anomaly and to use and maintain redundant, operable circuits to maintain the required line temperature is an item of noncompliance at the severity level of an Infraction (286/78-31-03).

4. Observations of Physical Security

The resident inspector made observations, witnessed and/or verified, during regular and off-shift hours, that selected aspects of the security plan were in accordance with regulatory requirements, physical security plans and approved procedures.

a. Physical Protection Security Organization

-- Observations and personnel interviews indicated that a full time member of the security organization with authority to direct physical security action was present, as required

-- Manning of all three shifts on various days was observed to be as required

-- All physical security members observed appeared capable of performing their assigned tasks

b. Physical Barriers

Selected barriers in the protected area (PA) and vital areas (VA) were observed and random monitoring of isolation zones was performed.

c. Access Control

Observations of the following items were made:

-- Identification, authorization and badging

-- Escorting

-- Communications

-- Compensatory measures, when required

d. Inspection Findings

On December 21, 1978, the inspector observed that an entrance door to a vital area was unlocked. The bolting mechanism was taped to remain in an open position. The tape was removed and the door was secured by the licensee. Approximately one hour later upon egress through the same door, the door was found blocked open with a piece of pipe. The pipe was removed and the door was resecured by the licensee. Identification of this problem was made to the licensee.

Failure to maintain control of a designated vital area as required by Paragraph 14 of the Modified Augmented Security Plan (MASP) is an item of noncompliance at the severity level of an Infraction (286/78-31-04).

5. Review of Periodic Reports

The inspector reviewed the information documented in the licensee's Monthly Operating reports for July, August, September, and October 1978.

The reports documented:

-- Operating Data Report

-- Average Daily Unit Power Level

-- Shutdown and Power Reductions

-- Monthly Maintenance Items

The review consisted of an examination of maintenance records for compliance with administrative procedures, examination of plant logs for addition items not identified in the reports, and examination for variations from the technical Specification requirements.

The inspector identified no items of noncompliance in his review.

6. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance or deviations. Unresolved items disclosed during this inspection are discussed in Paragraphs 2, 3 and 4.

7. Exit Interview

At periodic intervals during the course of this inspection, meetings were held with senior facility management to discuss inspection scope and findings. The items of noncompliance were identified to the Resident Manager.