

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Report No. 50-286/84-08

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: April 16, 1984 to May 15, 1984

Inspectors:



T. J. Kenny, Senior Resident Inspector

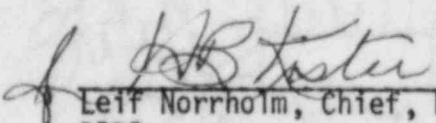
5/16/84
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L. W. Roszbach, Resident Inspector

5/16/84
date

Approved by:



Leif Norrholm, Chief, Reactor Project Section 2B,
DPRP

5/22/84
date

Inspection Summary:

Inspection on April 16, 1984 to May 15, 1984 (Inspection Report 50-286/84-08)

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; and ESF system walkdown. The inspection involved 139 inspector hours by the resident inspectors.

Results: No regulatory concerns were identified in this report period. The unit has been operational throughout the report period, except for brief periods as delineated in Section 2 of the 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. 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 containment (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:

- Residual Heat Removal System
 - Diesel Generators
 - Chemical & Valve Control System
 - Containment Fan Cooler Units
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 inspectors 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.

- April 16 The licensee conducted turbine stop valve testing (portions of this test were observed by the inspector; details in Section 4).
- April 19 The unit entered a 4 day LCO because of excessive leakage through check valve #1511 of the IVSWS. (Isolation Valve Seal Water System)
- April 21 At 12:35 p.m., the unit experienced a 10 MWe turbine runback caused by a spurious signal on Loop 2 OP Delta T. The licensee installed recorders on Th, Tc, Delta T and Tave to record the OP Delta T signal input.
- April 22 At 2:04 p.m., the unit experienced another 10 MWe runback. The recorder traces indicated that the Th signal caused the runback. The licensee replaced the Th protection drawer with a spare and expanded the scale on the recorder to obtain more data.
- April 23 The faulty check valve in the IVSWS was replaced (details in Section 3), and a retest was performed (details in Section 4). The system was placed back in service prior to the end of the LCO.
- April 24 The spare Th RTD was calibrated and placed in service in Loop 2 to replace the Th causing the spurious signals (details in Section 4).
- May 1 The licensee identified high vibration on #11 main bearing of the turbine generator. The vibration was higher when the unit was being operated with > 200 MVAR in the lag direction. The licensee restricted operations to < 150 MVAR in the lag direction.
- May 9 At 5:53 a.m., the unit was removed from service to repair a steam leak on Low Pressure Steam Dump #1207, and to perform a balance move on the turbine generator.

- May 10 The repair on Steam Dump #1207 (details in Section 4) and the turbine generator balance move were completed. The reactor was brought critical at 5:50 p.m.; however, high chlorides in the steam generators prevented startup.
- May 11 At 1:45 a.m., the chlorides were in specifications, and the licensee commenced a startup, but the balance move proved to be incorrect and the turbine was removed from service to make an additional balance move. At 4:13 p.m., the balance move was completed and the unit was returned to service at 100% power.

During this inspection period, the licensee was performing preventative maintenance on all 480 volt breakers throughout the plant. At times during the testing and cleaning of the breakers, LCO's were entered because of the removal of safety equipment. In all cases, the LCO's did not exceed the specifications delineated in Technical Specifications (details in Section 3).

No violations were identified.

3. 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) Preventive Maintenance of 480 Volt Electrical Breakers

Documents Reviewed:

- Work Request 4397
- Work Permit 5927
- Maintenance Procedure 3PM-R-ES-6 480 Volt Breaker Inspection

- Calibration Documents for Instrumentation

The inspector reviewed the results of testing for six breakers and witnessed the testing of one breaker.

2) Repair of Steam Leak at "Tee" for Low Pressure Steam Dump #1207

Documents Reviewed:

- Work Request 4402
- Maintenance Work Sheet
- Welder qualifications

3) Replacement of Check Valve 1511 in the IVSWS

Documents Reviewed:

- Work Request 4430
- Maintenance Work Step List
- Certification for Replacement Valve, Swagelock Fittings, Stainless Steel Tubing
- Material Substitution Evaluation RMS 84-03-023 (replace valve with a better quality valve)
- Safety Evaluation for New Valve
- PORC Minutes 84-33 - PORC review of the Safety Evaluation and Material Substitution

4) Removal, Inspection and Replacement of 3C Service Water Pump

Documents Reviewed:

- Work Request 4531
- Work Permit 5963
- QA Acceptance tag and associated documentation for replacement rebuilt pump
- Maintenance Procedure 3-CM-SW-2, "Service Water Pump Inspection and/or Overhaul"
- Certification for replacement parts - Lantern Ring
Bearings
Packing
Gaskets
- Torque wrench calibration for wrench M-311

No violations were identified.

4. Surveillance

A. Documents Reviewed:

- 3PT-M15 Main Turbine Stop and Control Valves Test
- 3PC-M1 Nuclear Power Range Channel Axial Offset Calibration
- #32 Hot Leg Spare RTD Calibration
- Isolation Valve Seal Water System Valve 1511 Retest

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.

5. Review of Monthly Report

A. Monthly Operating Report

The Monthly Operating Report for March, 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.

6. ESF System Walkdown

A. Documents Reviewed:

- Applicable Checkoff List for the System Inspected
- Applicable Prints for the System Inspected
- Administrative Procedures
- Technical Specifications

B. The inspector(s) independently verified the below-listed system(s) for operability and safety. In his inspection, the inspector:

- Confirmed that the lineup was in accordance with current checkoff lists and plant drawings;
- Identified equipment conditions, to the licensee, that might degrade performance of the system;
- Inspected interiors of cabinets, breakers and other equipment for loose material, jumpers, debris, etc. (performed with an assigned licensee operator); and,
- Verified that the system was capable of performing its intended function in accordance with Technical Specifications.

C. System Inspected and Inspectors' Comments

The inspectors found the Hydrogen Recombiner System was lined up in accordance with the current checkoff list and that the system was capable of performing its intended function with the use of the Current Operating Procedure.

No violations were identified.

7. 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 May 15, 1984 to discuss this report period.