

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

DCS 050286/841116

Report No. 50-286/84-30
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: December 16, 1984 to January 15, 1985

Inspectors:

L. W. Rossbach, Senior Resident Inspector

1/29/85
date

P. S. Koltay, Resident Inspector

1/29/85
date

Approved By:

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

1/29/85
date

Inspection Summary: Inspection on December 16, 1984 to January 15, 1985
(Inspection Report 50-286/84-30)

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, freeze protection, licensee event report, ESF system walkdown, and allegation followup. The inspection involved 141 hours by the resident inspectors.

Results: An unplugged defective steam generator tube was reported by the licensee following a review of eddy current data. A safety evaluation was performed and concluded that an unreviewed safety question did not exist. No violations were identified.

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DETAILS

1. Persons Contacted

Within this report period, 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

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.

a. On a daily basis, particular attention was directed in the following areas:

- Instrumentation and recorder traces for abnormalities;
- 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.

b. On a weekly basis, the inspectors 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:

- Containment Spray
- Diesel Generators
- Service Water
- Heat Tracing

c. 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; and,
- Verified that the physical security plan was being implemented.

d. Documents reviewed included:

- 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

e. Inspector Comments/Findings:

The unit operated at 100% power throughout this inspection period with no trips or other major events. The licensee did remove one circulating water box from service for a short time to plug 35 condense tubes. Blowdown was increased to reduce the chloride concentration below action levels.

On January 10, the inspectors noted a movable lifting rig parked adjacent to the component cooling heat exchangers and the isolation valve seal water injection system instrumentation. The inspectors noted that during a seismic event, the lifting rig may damage the adjacent equipment. This item was brought to the licensee's attention. The rig was promptly moved to a safe area.

f. Defective Steam Generator Tube:

On January 2, while preparing for a sleeving program that may be performed at the next refueling outage, Westinghouse discovered that a tube in steam generator #31 had eddy current indication in excess of the plugging limit and had not been plugged during the October 1984 mid-cycle outage. The indication has an estimated depth of 59% and is located about 1.3 inches above the first tube support plate. At this location the Technical Specification plugging limit is an imperfection depth of 40%. The plugging limit below the first support plate for this tube is 63%.

The Plant Operations Review Committee reviewed the situation and concluded that plant operation could continue pending completion of a formal safety evaluation based upon Westinghouse assurances that a previous safety evaluation for 63% plugging limit would apply above the first support plate. The licensee also discussed their finding with the NRC Office of Nuclear Reactor Regulation.

The formal safety evaluation was completed and approved by the Safety Review Committee and the Plant Operations Review Committee. A proposed change to the Technical Specifications has been prepared for a 63% plugging limit which incorporates a 10% allowance for eddy current uncertainty and a 2% corrosion allowance. Bending stresses due to LCCA and safe shutdown earthquake loading were evaluated.

The inspectors reviewed the results of radionuclide analysis of secondary system samples with the licensee. There is no measurable primary to secondary leakage. The licensee has committed to conduct weekly condenser air ejector exhaust sampling and analysis until the next refueling outage.

No violations were identified.

3. Maintenance

- a. The inspector selected completed maintenance activities listed below to ascertain the following:
- 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 QC 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.

b. Activities reviewed included:

Replace Boric Acid Transfer Pump - Work Request 5394 - The installed transfer pump was replaced with a spare. The inspector observed part of the pump installation and a QC hold point inspection. Following installation, a retest was performed successfully.

Repair Fan Cooler Unit Motor Coolers #32 and #35 - Work Requests 5430 and 5446 - A leak test was completed prior to returning the units to service.

The inspector discussed the maintenance history of the motor coolers with the maintenance engineer. Because of the frequent maintenance required on the motor coolers, a new motor cooler design has recently been approved by the licensee.

Repair/Calibrate VCT Level Indicator 112 - Work Request 3556 - The calibration data sheets were reviewed.

No violations were identified.

4. Surveillance

The inspectors observed the performance of portions of the following surveillance tests:

- PT-M19, Revision 5, Auxiliary Component Cooling Pumps;
- PT-M18, Revision 9, Residual Heat Removal Pump Test;
- PT-TM-4, Revision 0, Main Fire Pump Manual Start Tests; and,
- RA-12, Revision 2, Incore/Excore Calibration.

The inspectors observed that instrumentation used in the above tests was properly calibrated, that properly approved procedures were used, and that the results of the above tests met Technical Specification requirements.

No violations were identified.

5. Review of Monthly Report

The Monthly Operating Report for November 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 inspectors 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 6.9.1.5.

The inspectors have no further questions relating to the report.

6. Cold Weather Preparation

a. Documents Reviewed:

- FSAR
- Technical Specifications
- 3PT-Q8, Boric Acid Heat Tracing Test dated 10/27/84
- 3PT-A5, Intake Structure Electrical Heat Trace Test dated 8/31/84
- IE Bulletin 79-24 and Licensee's Response

b. Inspector Findings:

The inspector reviewed the above documents and discussed cold weather preparation with operations, maintenance, performance, and fire protection supervisors and determined that the licensee is implementing protective measures for cold weather protection.

The inspector also verified freeze protection for sections of the service water system and station air system, the refueling water storage tank, primary water storage tank and fire protection tanks, and spot-checked electrical heat tracings in plant areas susceptible to freezing temperatures.

The licensee is in the process of updating the "rover" log sheet to include daily verification and recording of water temperature of the refueling water storage tank, the primary water storage tank, and the fire protection water storage tank. The inspector noted that while a formalized cold weather preparation program is not in place, the licensee routinely maintains freeze protection equipment in good working order.

No violations were identified.

7. Licensee Event Report

The following LER was reviewed:

- 84-015, Equipment Failure During Station Blackout

The inspectors reviewed the LER to verify that details of the event were clearly reported, including the accuracy of the description of the cause and the adequacy of corrective action. The inspectors also verified that the reporting requirements of Technical Specifications and Station Administrative Procedures had been met, and that continued operation of the facility was in conformance with Technical Specification limits.

The event reported occurred on November 16, 1984, while the plant was in cold shutdown for a scheduled outage. A piece of sheet metal was blown by high winds onto the station auxiliary transformer causing an electrical fault and a loss of offsite power. Power was restored from the alternate offsite power supply. Both resident inspectors were onsite when power was lost; one was in the Primary Auxiliary Building, the other reported to the Control Room.

The LER reports that power was unavailable to the RHR system for fourteen minutes. This was based upon a bulk entry in the control room log made fourteen minutes into the event and documenting that RHR was restored. Power to RHR pump #31 was actually available as soon as bus 3A was energized, which occurred very early in the event, as soon as the operators switched to the alternate offsite power supply. The resident inspector in the control room confirmed that an RHR pump was running about four minutes into the event.

Power was not restored to bus 6A, one of four emergency power busses, due to several breaker failures. Power was available to the remaining three busses and this ensured that required safety related equipment was available. Bus 6A could not be powered from normal or emergency power supplies because control power fuses blew in its two supply breakers. The tie breaker between bus 3A and 6A would not close because of undetermined causes. The following day, after replacement of the control power fuses, the loss of power was simulated and all breakers functioned properly. The breakers involved were Westinghouse type DS 416 and DS 532. A followup report is being prepared by the licensee.

The Plant Operating Review Committee (PORC) has not yet met to review this event; however, almost all committee members have been involved in individual reviews of this event. The apparent reason for the delay is that the followup report has not been issued. The inspectors expressed their concern to management regarding a lack of timely PORC review of such a significant event. The licensee committed to monthly reviews of the Significant Occurrence Report status log to identify unreviewed reports to prevent such delays.

The inspectors have no further questions at this time, but will continue to follow the licensee's investigations.

No violations were identified.

8. ESF System Walkdown

The inspectors conducted a walkdown of the essential service water system. Service water pumps 31, 32 and 33 were aligned to the essential header. The inspectors found that the valve lineup was correct and in accordance with Checkoff List COL-RW-2. A discrepancy was identified between the identification tags of the diesel generator jacket water isolation valves and Flow Diagram 9321-F-27223-22; however, the identification tags did agree with the COL designations. This item was brought to the licensee's attention. The licensee stated that all valve lineups and changes to valve positions are accomplished in accordance with applicable checkoff lists and not the flow diagram. Immediate action was initiated to correct the flow diagram.

No violations were identified.

9. Allegation Followup

An anonymous note, with a copy of a speed letter and a purchase order, was received at the NRC King of Prussia, Pennsylvania office. The note questioned the propriety of release of equipment for installation prior to the receipt of a report of inspections and tests performed. The Purchase Order PO-IP-84-8364, required an approved licensee contractor to repair and perform preventive maintenance on four containment fan cooling motors at the contractor's facilities. The purchase order also required the return of the motors to the site with Certificates of Compliance and inspection and test reports.

The inspectors reviewed the following applicable documents:

- Purchase Order PO-IP-84-8364;
- Quality Assurance Receipt Inspection Reports RMR 37038 and 37070;
- Certificates of Compliance;

- Speed letter requesting release of equipment dated November 7, 1984;
- Report on Contractor Work dated November 11, 1984;
- Equipment Maintenance Historical Files;
- Quality Assurance Surveillance Report SR #SS-29-I; and,
- Quality Assurance Procedure, QAP 1.3, Revision 0, Conditional Release and Stop Work.

Based on the review of the above documents and on discussions with the licensee, the inspectors found that a licensee quality assurance engineer inspected the contractor's test equipment and witnessed all pertinent tests associated with the repaired motors. The subject equipment was returned to the licensee's facility with the Certificate of Compliance, but without the written report detailing inspection and test results. Through discussions with the contractor and the QA engineer who witnessed the tests, the licensee was assured that all tests were successfully completed. Subsequently, the licensee released the equipment for installation without initiating followup controls for materials as detailed in Quality Assurance Procedure QAP 1.3, Conditional Release and Stop Work - Plant. The licensee stated that the Conditional Release procedure did not apply, since all tests were witnessed and verified by a licensee engineer and the receipt of written test reports was imminent. The inspectors agreed that the licensee acted properly by releasing the equipment for installation; however, in the future, a formal followup should be established to assure that all necessary paperwork is received on site prior to placing the equipment in service. The inspectors determined that the required documents including the Certificate of Compliance and the contractor's test report, were on site prior to returning the plant to power operations on November 27. The inspectors conducted extensive document reviews and numerous discussions with licensee management. In conclusion, the allegation could not be substantiated. No further followup is planned in this area.

No violations were identified.

10. 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 January 16, 1985 to discuss this report period. During the discussion, the licensee did not identify any 10 CFR 2.790 material.