



## DETAILS

### 1. Persons Contacted

M. Albright, Instrument and Control Superintendent  
J. Brons, Resident Manager  
J. Dube, Security and Safety Supervisor  
D. Halama, Q. A. Superintendent  
S. Munoz, Technical Services Supervisor  
J. Perrotta, Radiological and Environmental Services Superintendent  
J. Russell, Superintendent of Power  
E. Tagliamonti, Operations Superintendent  
J. Vignola, Maintenance Superintendent

The inspector also interviewed and observed other licensee employees including members of the operations, health physics, technical services, maintenance, and security staffs.

### 2. Plant Tour

A. Normal and backshift inspections were conducted during routine entries into the protected area of the plant, including the control room, PAB, fuel building, and containment. 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. Particular attention was directed in the following areas:

- Instrumentation and recorder traces for abnormalities;
- Proper control room and shift manning;
- Proper use of procedures;
- Review of logs to obtain plant conditions;
- Verification of proper radiologically controlled areas and access points;
- Verification of surveillance testing for timely completion;
- Verification of safety-related tagouts;
- Plant housekeeping and cleanliness;

- That protected area access controls were in conformance with the security plan, including sufficient guards to perform duties, and that selected gates and doors were closed and locked;
  - Selected liquid and gaseous samples to verify conformance with regulatory requirements prior to release; and,
  - Boric acid samples to confirm proper boric acid level for plant shutdown conditions.
- B. During the inspection, the inspector reviewed the following procedures, documents, or evolutions:
- Radioactive Waste Release Permit (liquid & gaseous)
  - Various shift turnover checklists
  - Security Station Logs and Radio Checks
  - Jumper Log
  - Selected Operators' Logs
  - Selected Tagouts
  - Selected Radiation Exposure Authorizations (REA's)
  - Selected Chemistry Logs

No violations were identified.

### 3. Surveillance

- A. The inspector directly observed the performance of, 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;
  - That the results of the tests met Technical Specification requirements; and,
  - That the testing was done within the required surveillance schedule.

B. The inspectors witnessed portions of, and reviewed the results of the following tests:

- 3PT-R4 Full Length Rod Drop Time Test
- 3PT-R6 Full Length Rod Position Indication System Calibration
- 3PT-V21 Turbine Generator Overspeed Trip
- 3PT-V1 Source Range Operational Check
- 3PT-R6 Main Steam Safety Valve Setting Test

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) Repair of Piping at Vent of #33 CVCS Holdup Tank

###### Documents Reviewed:

- Work Request 3609
- Maintenance Work Step List
- Weld Data Sheet for Joints SFW-CVCS-491
- Weld Data Sheet for Joints SFW-CVCS-494
- Weld Material Requisitions
- Certification Papers for Weld Material
- Visual and Die Penetrant Results

## 2) Repair of RHR Mini Flow Valve 1870

Documents Reviewed:

- Work Request
- Maintenance Step List
- 2" Schedule 40 Pipe Certification Papers
- S.S. "U" Bolt Certification Papers
- Weld Material Requisitions
- Weld Data Sheet for SFW-RHR-075
- Retest of Joints
- ASME B-31.1

No violations were identified.

5. Review of Monthly ReportA. Monthly Operating Report

The Monthly Operating Report for April, 1983 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.

B. The inspector 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 6.9.1.6.

The inspector has no further questions relating to the report.

6. Follow-up on IE Bulletins

The inspector reviewed the below listed IE Bulletins. In addition to his comments, he ascertained that in each case:

- The written response was within the time period stated in the Bulletin;
- The written response included the information required to be reported;
- The written response includes adequate corrective action commitments based on the information presented in the Bulletin and licensee's response;

- The licensee's management forwarded copies of the written response to the appropriate onsite management representatives;
- The information discussed in the licensee's written response was accurate; and,
- The corrective action taken by the licensee was described in the written response.

(Closed) Bulletin (50-286/BU-83-01) "Failure of Reactor Trip Breakers (Westinghouse DB-50) to Open on Automatic Trip Signal." This bulletin was also addressed in Inspection Report 83-04. The inspector has reviewed the modification installed to improve the testing of the DB-50 breakers which are used to trip the reactor. The inspector also reviewed the tests performed after the modification verifying that the breakers performed as designed. The inspector has no further questions concerning the W DB-50 breakers.

(Closed) Bulletin (50-286/BU-83-03) "Check Valve Failures in Raw Water Cooling Systems of Diesel Generators." The inspector has reviewed the licensee's response and concurs that the bulletin's concern is non-applicable to Indian Point Unit 3.

The following bulletins are non-applicable to Indian Point Unit 3, and are considered closed:

(Closed) Bulletin (50-286/BU-83-02) "Stress Corrosion Cracking In Large Diameter Stainless Steel Recirculation System Piping at BWR Plants."

(Closed) Bulletin (50-286/BU-83-04) "Failure of the Undervoltage Trip Function of Reactor Trip Breakers."

(Closed) Bulletin (50-286/BU-83-05) "ASME Nuclear Code Pumps and Spare Parts Manufactured By The Hayward Tyler Pump Company."

No violations were identified.

## 7. Inspector Verification of NRR Requests and Licensee Commitments

### A. Control Room Ceiling

By a letter dated April 28, 1983, the licensee proposed a control room ceiling modification to be **completed** prior to plant startup. The inspector verified that the egg crate grids installed in the control room ceiling have been tied together with ty-wraps (a device used to tie wire bundles together) so that if a seismic event should occur, a single grid cannot fall and injure an operator.

B. Main Condenser/AFW Cross Tie Line (LCV-1158)

By a letter dated February 7, 1983, the licensee committed to have an interim measure for manual valve isolation of the Main Condenser/AFW (LCV-1158) cross tie line in place prior to plant startup. The inspector verified, by procedure review, that the licensee has a procedure in place to isolate this valve prior to reaching a low level in the condensate storage tank.

No violations were identified.

8. Witness of Appendix R Equipment Testing

A. Documents Reviewed:

- 10 CFR 50 Appendix R
- Post Maintenance Test SOP-EL-12 - Placing the Installed Equipment on the Alternate Bus
- Acceptance Test for #31 & #32 Charging Pumps Alternate Feed

B. Inspector Findings:

The inspector witnessed the testing of #31 and #32 Charging Pumps on the newly installed alternate electrical feeds. The inspector verified that the test was done in accordance with approved procedures, and that:

- The rotation of the charging pumps was in the proper direction;
- The current to the motors was within specifications, and that the voltage drop was allowable by the procedure; and,
- The newly installed transfer switches functioned as designed.

The inspector also witnessed the full load testing of the newly installed 312A switchboard which houses the alternate supply breakers and starting devices for charging pumps #31 and #32, service water pump # 38, and component cooling pump #32. The inspector verified that the test was done with an approved procedure, and that:

- The voltage and ampmeter readings taken at the breakers and in the control room did not exceed the requirements of the procedure limits;

- That all the equipment powered from the alternate switchboard (312A) functioned as designed; and,
- That all the indicating lights and control room alarms functioned as designed.

No violations were identified.

#### 9. Potential Loose Locks On Fire Dampers

##### A. Documents Reviewed:

- NRC Region IV Vendor Program Branch Inspection 83-01
- Letter from Chief Vendor-Program Branch to Director, Division of Projects and Resident Program Branch, Region I, dated April 29, 1983 titled, "Potential Loose Locks on Fire Dampers at the Indian Point Station."

##### B. Inspector Findings:

The licensee had reviewed a letter from the vendor delineating the problem with the clips prior to the inspector beginning his inspection. The problem was, that the clip holders were bent in the wrong direction which would allow the guide (used to guide the damper at the bottom of its travel in order to insure a tight closure) to become loose. The licensee began a repair program, recommended in the vendor letter, to repair these clip holders. The inspector reviewed documentation that 38 of these dampers had been repaired. (38 is all that is installed.) The inspector also inspected several of the repaired clips to insure compliance with the vendor's letter.

The inspector has no further questions on this matter.

#### 10. Licensee Event Reports

##### A. In-Office Review of Licensee Event Reports

The inspector reviewed LER's 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's were reviewed:

<u>Report Number</u>	<u>Subject</u>
83-001/03L-0	Damage of #33 CVCS Hold Up Tank While Transferring Water
83-002/03L-0	Leak in RHR Mini Flow Line Between Valve 1870 and Line 337

B. Onsite Licensee Event Followup

The LER's listed below were 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.

1) 83-001/03L-0

The inspector reviewed maintenance activities (Section 4 of this report), and observed the return to service of this tank. Additional information pertaining to this event is detailed in Inspection Report 83-11. The inspector has no further questions concerning this LER.

2) 83-002/03L-0

The inspector reviewed maintenance activities (Section 4 of this report), and witnessed the return to service of this portion of the RHR system. The licensee has sent the portion of the degraded pipe to Battelle Laboratories for analysis. The inspector will review the results in a future inspection report. The inspector has no further questions concerning this LER.

11. Plant Startup

During this reporting period, the licensee heated the plant up, achieved criticality, completed zero power physics tests, and paralleled the unit to the grid ending a 14-month outage for re-fueling, steam generator repairs, surveillance, and maintenance.

During heatup, the unit experienced a safety injection signal, and after criticality, the unit experienced three reactor trips. The safety injection signal was caused when a 2 of 3 high steam line delta P logic was made up while technicians were blowing down impulse lines on the steam generator pressure instruments. No injection of water occurred and all systems functioned as designed. Two of the trips occurred due to feedwater flow being inconsistent with steam generator level demand. All systems functioned as designed.

An inspector was present in the control room during the first trip. The third reactor trip resulted from a blown fuse in #2 source range channel prior to the reactor reaching permissive P-6. Post trip reviews were reviewed by the resident inspectors, and no inconsistencies were identified.

The resident inspectors witnessed key points of the startup. Key surveillance tests witnessed were: Full Length Rod Drop Time; Individual Rod Position Indication System Calibration; Main Steam Safety Valve Setting Test; Source Range Operational Test; and, Turbine Overspeed Trip Test. These surveillance inspections are discussed in Paragraph 3 of this report. In addition, the resident inspectors witnessed an Isothermal Temperature Coefficient Measurement and the Control Rod Worth Measurement for Control Bank D. The inspector independently verified that the prerequisites and initial conditions for the measurements as delineated in the procedure were met, and that during the measurements, precautions as indicated in the procedure were observed. The inspector also independently verified that plant conditions during actual measurement corresponded to those plant conditions required by the procedure.

The resident inspectors performed a walk down of the auxiliary feed-water system, and the emergency diesel generators, and independently verified that they have been returned to service in accordance with approved procedures, checkoff lists, and updated system drawings. The inspectors also verified that the startup is being performed in accordance with technically adequate and approved procedures which have been revised to reflect changes made to the facility and to the startup testing program. The inspectors also verified that startup activities are conducted in accordance with Technical Specification requirements.

At the end of this report period, the unit was at 210 MWe with reactor power level at 33%, while performing the steam generator boron soak. (A Westinghouse recommended program used to reduce potential for denting) The resident inspectors will continue to monitor unit startup to 100% power.

No violations were identified.

#### 12. Potential Unreviewed Safety Question

The licensee reviewed a telephone script from Westinghouse which informed them of a potential unreviewed safety question with regard to operating at less than 85% power for greater than 500 MWD/MTU followed by a return to full power operation. The concern is increased power peaking in the bottom 6 feet of the core after the return to power.

The inspector had discussions with licensee management and reviewed correspondence between the licensee and Westinghouse. The conclusion is that Westinghouse's current conservative estimate for Indian Point 3 is that reduced power operation (less than 85%) for a burnup of less than 500 MWD/MTU is allowable. The correspondence further points out that early in the fuel cycle there should be no major problem because moderator coefficient is small. The increased negative value of the coefficient with burnup toward the end of core life aggravates the problem by a higher linear power density. Westinghouse is going to provide more guidance on the subject at a later date.

The inspector has no further questions at this time.

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, 1983 to discuss this report period.