U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Report No. 50-286/83-16

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: August 16, 1983 to September 15, 1983

Inspectors:

T. J. Kenny, Senior Resident Inspector

Rossbach, Resident Inspector

115183 date

date

Approved by:

date

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

Inspection Summary:

Inspection on August 16, 1983 to September 15, 1983 (Inspection Report 50-286/83-16) Areas Inspected: Routine onsite regular and backshift inspection of plant operations including shift logs and records; licensee actions on previous inspection findings; plant tour; surveillance; maintenance; review of monthly operating report; TMI task action plan status; potential failure of General Electric switch gear; design changes and modifications; and, update on current outage. The inspection involved 133 inspector hours by the resident inspectors. Results: Of the nine areas inspected, no violations were identified.

1. Persons Contacted

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- M. Albright, Instrument and Control Superintendent
- J. Brons, Resident Manager
- J. Dube, Safety and Fire Protection Superintendent D. Halama, Q.A. Superintendent S. Munoz, Technical Services Superintendent

- J. Perrotta, Radiologicai 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. Licensee Actions on Previous Inspection Findings

(Closed) Unresolved Item (50-286/81-01-06) TMI Lessons Learned, Item II.1.5.C (0578) Recombiner Procedures Review. This item is being addressed in NUREG 0737, Item II.B.2. See Section 7 of this report for status of that item.

(Closed) Unresolved Item (50-286/81-01-08) TMI Lessons Learned, Item III.A.1.2, Onsite Operational Support Center Deficiencies. The concerns of the inspector have been satisfied with the building of the new operational support facility.

3. 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 Authorization (REA's)
 - Selected Chemistry Logs

No violations were identified.

4. Surveillance

- A. The inspector either directly observed the performance of, or 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 reviewed the following tests:
 - 3PT-W1 Diesel Generator Test
 - 3PT-M31 Instrument Air System
 - 3PT-M32 Seismographic Instrumentation
 - 3PT-M53 Control Room Camera Monitoring System Test

No violations were identified.

5. 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.
 - Cleaning and Replacement of "O" Rings in Accumulator Level Transmitter LT-935D #34 Accumulator

Documents Reviewed:

- Maintenance Request 2075
- Maintenance Work Sheet
- Maintenance Checklist
- Certification for New "O" Rings
- Retest Procedure 3PC-R16 with Data Sheet
- 2) Replacement of Pre-amp and Detector in R-20 Radiation Monitor

Documents Reviewed:

- Maintenance Request 2117
- Maintenance Work Sheet
- Maintenance Checklist
- Certification for New Pre-amp and Detector
- Retest Procedure 3PC-R13 with Data Sheet
- Replacement of a Defective Relay TR 3-2 in Safety Injection Train B

Documents Reviewed:

- Maintenance Request 2150
- Maintenance Work Sheet
- Maintenance Work Step List including QC Hold Points
- Post Maintenance Testing Data Sheet
- Certification for New Relay

No violations were identified.

6. Review of Monthly Report

A. Monthly Operating Report

The Monthly Operating Report for July, 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.

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 15 6.9.1.5.

The inspector has no further questions relating to the report.

7. TMI Task Action Plan Status

In accordance with the TMI Task Action Plan Tracking System, the following items are considered open. This paragraph is intended to provide a status of these items to date. This paragraph is not intended to close any of these items, but to provide a concise overview of the current status. All correspondence between NRR and the licensee is not addressed, but rather the latest correspondence is delineated for purposes of reference.

I.A.1.3.2 Minimum Shift Crew

The licensee has asked NRR for an exemption for four licenses per shift until more licenses can be trained and licensed by the NRC. NRR responded with a letter asking for additional information. The licensee responded with a letter dated February 15, 1983 supplying the additional information relating to the sufficient number of personnel acquiring a license from the next examination given late in 1983. The licensee also stated they will maintain the reciprocal Reactor Operator agreement with Consolidated Edison. (The agreement was based on earlier letters.) This item is also addressed in NRR letter dated March 18, 1983 (Confirmatory Order) stating the final requirement is to be addressed in the final rule on licensed operator staffing at Nuclear Power Units.

I.C.1.2 Emergency Operating Procedures

There has been voluminous correspondence between the licensee and NRR relating to this issue. The latest issuance was by NRR (Supplement I to NUREG 0737) which changed the requirements and asked the licensee to provide a schedule of implementation by April 15, 1983. The licensee's response states they will use the Westinghouse Owners Group (WOG) Emergency Response Guidelines which were to be issued July 31, 1983 in the preparation of Emergency Operating Procedures. This effort is currently being worked on by the licensee.

I.C.1.3 Transients and Accidents Implementation of Regulatory Guide 1.97, Revision 2

Regulatory Guide 1.97, Revision 2 is currently being reviewed by the licensee as indicated in their letter of April 18, 1983 to NRR. The licensee delineates two phases of the implementation of this item. The first phase will establish the degree of compliance with the guide, and is due this quarter of 1983. The second phase of the program, if necessary, will involve the determination of specific justifications to the guide, and the development of specific design modifications, if required.

I.D.2.2 Safety Parameter Display System (SPDS)

The licensee has recently amended their response to Generic Letter 82-33 (Supplement 1 to NUREG 0737) in which they agree to submit the required SPDS report, including a summary of 10 CFR 50.59 evaluation to NRR, at least nine months prior to the start of the next refueling outage (cycle 4/5).

I.D.2.3 Implement (SPDS)

See I.D.2.2 above.

II.B.1.2 Reactor Coolant System Vents (RCSV)

The licensee has issued modification procedure 81-03-090 RCS and has committed to install the system during the 4/5 refueling cycle.

11.B.1.3 Procedures for RCSV

After the installation of the system, procedures will be issued to operate the system.

II.B.2 Plant Shielding

Refer to Inspection Report 83-05 for partial completion of this item. The licensee plans to complete the remaining portions of the modification during the refueling cycle 4/5. The licensee is currently recalculating stay times in radiation areas, especially in the area of the hydrogen recombiners' control panel. By the letter, from NRR, dated March 18, 1983, Confirmatory Order, the licensee has been granted cycle 4/5 for completion. A letter, dated April 18, 1983, from the licensee commits to the completion of this item during the 4/5 refueling cycle.

II.B.3 Post Accident Sampling

The licensee has responded to the questions asked in the NRR letter dated June 30, 1982. The licensee's response letters were dated October 12, 1982, May 10, 1983, and June 17, 1983. NRR replied in letter dated August 15, 1983 with an accompanying Safety Evaluation Report, which accepts seven of the eleven criteria, and leaves four items to be addressed by the licensee. Refer to Inspection Report 80-02 for the details of actual system inspection.

II.E.1.1.2 Auxiliary Feedwater System (AFWS) Evaluation

The licensee responded to this item by referring to their response letters to the Confirmatory Order of February 11, 1980. (Their letters of August 11, 1980 and November 26, 1980). NRR responded to the August letter stating problems with flow to the Steam Generators (300 gpm per two Steam Generators vs. 400 gpm per two Steam Generators per each Auxiliary Feedwater Pump). Also "J" tube installation and the time for recognized operator action were discussed. The licensee responded in the November letter and stated that 400 gpm would be delivered to two steam generators assuming the worst case single failure criteria. They also stated that the "J" tubes had been installed in all four Steam Generators. The resident inspector has verified that the unit is capable of delivering the 400 gpm, as required. NRR has not responded further as to the adequacy of the evaluation given by the licensee.

II.F.1.1 Noble Gas Monitor

The licensee has been granted an extension by the Confirmatory Order issued March 18, 1983 to install this item during the 4/5 refueling cycle outage. The licensee has approved for implementation Modification 80-03-054-RMS, "Wide Range Gas Monitor for Plant Vent."

II.F.1.2 Iodine/Particulate Sampling

The March 18, 1983 Confirmatory Order refers to this item as completed. The inspector conducted an inspection of Modification MOD-82-3-008 RMS, "Installation of Flow Metering Devices for Containment and Plant Vent Sampling Systems," and considers this item to be installed in accordance with Station Administrative Procedures. (Refer to Section 9 of this report for details of the inspection.)

II.F.1.3 Containment High Range Monitor

The March 18, 1983 Confirmatory Order refers to this item as incomplete. The inspector conducted an inspection of Modification MOD-79-3-127 RMS, "High Range Containment Radiation Monitors," and considers this item to be installed to Station Administrative Procedures. (Refer to Section 9 of this report for details.)

II.F.1.4 Containment Pressure

The March 18, 1983 Confirmatory Order refers to this item as complete. The inspector conducted an inspection of Modification MOD 80-3-051-ESS, "Containment Building Pressure," and considers this item to be installed to the Station Administrative Procedures. (Refer to Section 9 of this report for details.)

II.F.1.5 Containment Water Level

The licensee has been granted an extension by the Confirmatory Order of March 18, 1983 to install this item during the 4/5 refueling outage. The licensee has approved, for implementation, Modification MOD 80-03-052 ESS, "Containment Building Water Level." The licensee has issued Work Request (1346), and has begun to implement the modification.

II.F.1.6 Containment Hydrogen

The licensee has been granted an extension by the Confirmatory Order of March 18, 1983 to install this item during the 4/5 refueling outage. The licensee has approved, for implementation, Modification MOD 80-03-053 H₂, "Containment Building H₂ Concentration." The licensee has issued Work Request 1347, and has begun to implement the modification.

II.F.2.3 Install Level Instrument (Reactor Vessel Level)

By a letter dated December 10, 1982, (Generic Letter 82-28) NRR required a system description of the level instruments by all licensees. The licensee replied in a letter dated March 15, 1983 with a description and proposed installation date of the 5/6 refueling (mid-1986) for the reactor vessel level system. This item is not delineated in the latest Confirmatory Order of March 18, 1983.

II.K.3.1 Auto PORV Isolation

By a letter dated December 30, 1980, the licensee informed NRR that the WOG was developing a report for submittal, but the report would be delayed until March 1, 1981. The inspector noted that in the letter of March 17, 1982 (Generic Letter 82-05) NRR stated that the licensee's submittal was under review.

II.K.3.5 Auto Trip of RCP's

By a letter dated December 30, 1980, the licensee informed NRR that the WOG studies in this area conclude that resolution of this issue can be achieved without any design modifications. On November 30, 1982, the Commission issued SECY 82-475, "Staff Resolution of the Reactor Coolant Pump Trip Issue." NRR then issued Generic Letters 83-10c & d on February 8, 1983, requiring a response from the licensee. The licensee, in response to NRR, in a letter dated April 25, 1983, stated they would follow the WOG guidelines, and incorporate the guidance in their upgrade of the Emergency Response Procedure. See Task I.C.1.2.

II.K.3.12 Anticipatory Trip on Turbine Trip

In a letter dated December 30, 1980, the licensee stated that the unit has an anticipatory trip upon turbine trip when the reactor is above 10%, and no further action was required. By a letter dated October 29, 1981, it was delineated that this item was closed for this facility.

II.K.3.25 Power On Pump Seals

NRR has reviewed the licensee's response to this item in a letter dated October 15, 1982, and has asked the licensee for additional information. The licensee has not responded to this letter to date.

II.K.3.28 Qualification of ADS Accumulators II.K.3.57 Manual Actuation of ADS

These items apply to BWR reactors only and require no action at PWR's.

III.A.1.2 Upgrade Emergency Support Facilities

Since 0737 was issued, the licensee has jointly built an EOF in conjunction with Consolidated Edison, and has also built an OSC and TSC, which are all functional, but not completed to date. NRR has issued further clarification on this item, with a letter dated December 17, 1982 (Generic Letter 82-33), Supplement I to NUREG 0737. In reply to this letter dated April 18, 1983:

- EOF The licensee describes the design, construction, and the equipment available in the EOF and commits to installing a Safety Parameter Display System (SPDS) prior to startup from the 4/5 refueling outage. The licensee states that an alternate EOF at their White Plains office is available, with the exception of tying the SPDS into the facility which has been scheduled for the 4/5 refueling outage.
- TSC The licensee describes the design, construction, and the equipment available in the TSC, and delineates that the SPDS is under development and is scheduled to be operational at the end of the 4/5 refueling outage. Video surveillance of the control room panels has been installed along with terminals linked to the plant's P-250 computer in the interim.
- OSC The licensee describes the OSC and makes no further committments.

III.A.2 Emergency Preparedness

The licensee has been under close scrutiny by the NRC and FEMA for the past two years in this area. Their position has been presented publicly at the Atomic Safety and Licensing Board hearings which were conducted to assess the safety of the power plants in a highly populated area. Currently, FEMA is preparing a report to the Commission to address two major deficiencies, (non-qualified bus drivers in Westchester County, and no evacuation plan and non-participation of Rockland County), which were identified during a previous drill. These deficiencies have been corrected and retested during the week of August 22, 1983.

III.D.3.4 Control Room Habitability

By a letter dated January 27, 1982, NRR supplied the licensee with a safety evaluation which delineated that once the plant alterations are completed, this item would be completed. The licensee, by February 15, 1983, states that standard grade chemical monitors will be installed prior to cycle 4/5 refueling outage.

No violations were identified.

8. Potential Failure of General Electric Switch Gear

The regional office requested that resident inspectors verify that a modification had been installed in any General Electric 4160 Volt Vertical Lift Metal-Clad Switch Gear 416-250 Hi Momentary and 416-32D1200 Amp and 2000 Amp Ratings Breakers.

The inspector verified that the licensee uses 6900V switch gear, and does not have any General Electric switch gear of the type delineated in the above paragraph.

No violations were identified.

9. Design Changes and Modifications

- A. Documents Reviewed:
 - Maintenance Work Requests 2672, 1344 and 1345
 - Modification Packages 82-3-008 RMS "Installation of Flow Metering Devices for Containment and Plant Vent Sampling System;" 79-03-127 RMS - "High Range Containment Radiation Monitors;" and 80-3-051 ESS - "Containment Building Pressure."
 - 10 CFR 50.59
 - Technical Specifications
 - Administrative Procedure
 - Other documents as listed in the following paragraph

B. Inspector Findings:

The inspector reviewed the above-listed modifications to ascertain that the modifications to the facility were performed in conformance with Technical Specifications and 10 CFR 50.59. In his review the inspector verified that:

- Modifications were reviewed and approved in accordance with Technical Specifications, Administrative Procedures, and established QA/QC procedures;
- Established procedures were incorporated to control the implementation of the modification;
- Pre-operational testing was performed to ensure the operability of the system prior to being placed in service utilizing approved procedures;
- That approved procedures were in place to delineate the operation, maintenance, and emergency operation of the system;
- Randomly selected certifications showed that materials were in compliance with QA/QC controls;
- Proper use of controls such as welding permits, fire watches, welding procedures, and qualified welders were utilized; and,
- QC inspectors were utilized, at pre-determined hold points, to inspect fit-ups, wiring terminations, and certification of materials as determined by established QA/QC procedures.

No violations were identified.

10. Update on Current Outage

The unit remains in a cold shutdown condition with the steam generators within chemical specifications prescribed by the latest W letter on steam generator wet lay-up. Work continues on the main generator with the restacking of stator iron in progress. The rotor is in Pittsburgh undergoing refurbishment.

11. 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. At no time during this inspection was written material provided to the licensee by the inspectors. An exit interview was held on September 9, 1983 to discuss this report period.