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

Region I

Report No. 50-333/80-12

Docket No. 50-333

License No. DPR-59 Priority -- Category C

Licensee: Power Authority of the State of New York

P.O. Box 41

Lycoming, New York 13093

Facility Name: James A. FitzPatrick Nuclear Power Station

Inspection at: Scriba, New York

Inspection conducted: July 1, 1980 - August 29, 1980

Inspectors: for H B Kister
W. Baunack, Senior Resident Inspector — 10/2/80 date signed

for H B Kister
J. Linville, Resident Inspector — 10/2/80 date signed

_____ — _____ date signed

Approved by: H B Kister — 10/2/80 date signed
H. B. Kister, Chief, Reactor Projects
Section No.2, RO&NS Branch

Inspection Summary:
Inspection on July 1 - August 29, 1980 (Report No. 50-333/80-12)
Areas Inspected: Routine inspection by resident inspectors (124 hours) of licensee action on previous inspection findings, operational safety verification, observation of physical security, monthly maintenance observation, inspector witnessing of surveillance tests, preparation for plant startup following refueling, plant startup following refueling, licensee actions taken in response to IE Bulletin 80-17, Operational event, verifying licensee application submittals for licensee training staff personnel, location of load centers, and main steam isolation valve leak rate testing.
Results: Of the twelve areas inspected, no items of noncompliance were noted in eleven areas. One item of noncompliance was identified in one area (deficiency - failure to adequately control written procedures, paragraph).

Region I Form 12
(Rev. April 77)

DETAILS

1. Persons Contacted

R. Baker, Superintendent of Power
N. Brosee, Maintenance Superintendent
V. Childs, Assistant to Resident Manager
R. Converse, Operations Superintendent
W. Fernandez, Technical Services Superintendent
H. Keith, Instrument and Control Superintendent
E. Mulcahy, Radiological and Environmental Services Superintendent
L. Milesi, Security and Safety Supervisor
D. Pasternak, Resident Manager
D. Tall, Training Coordinator

The inspectors also interviewed and talked with other licensee personnel during the course of the inspection including shift supervisors, administrative, operations, health physics, security, instrument and control, and contractor personnel.

2. Licensee Action on Previous Inspection Findings

(Closed) Inspector Follow Item (333/78-24-04): Amendment 49 to the licensee technical specifications requires an SRO with no concurrent duties to supervise core alterations. This item is considered closed.

(Closed) Inspector Follow Item (333/79-17-11): On numerous occasions the inspector observed that no smoking conditions in the relay room are being adhered to. This item is considered closed.

3. Operational Safety Verification

a. Control Room Observations

(1) Using a plant specific checklist, the inspectors independently verified plant parameters and equipment availability to ensure compliance with the limiting conditions for operations of the plant technical specifications. Items checked included:

-- Switch and valve positions
-- Alarm conditions
-- Meter indications and recorder values
-- Status lights and power available lights
-- Computer printouts
-- Comparison of redundant readings

No items of noncompliance were identified.

b. Shift Logs and Operating Records

(1) The inspector reviewed the following plant procedures to determine that the licensee has established requirements in this area:

-- Administrative Procedure No. 1.5, Procedure for Rules of Practice, Revision 2, January 10, 1980

-- Operation Department Standing Order No. 4, Shift Relief and Log Keeping, Revision 6, January 25, 1980.

No items of noncompliance were identified.

(2) Shift logs and operating records were reviewed to verify that:

-- Control Room Logs were filled out and signed.

-- Log entries involving abnormal conditions provide sufficient detail to communicate equipment status.

-- Shift turnover sheets were filled out and signed.

-- Logs and records were maintained in accordance with the procedures in a above.

(3) The review included the following plant logs and records, and discussions with licensee personnel.

-- Shift Supervisor Log;
-- Senior Nuclear Operator Log;
-- Shift Turnover Sheet;
-- Night Orders;
-- Auxiliary Operator Log;
-- In Plant Status Log.

(4) The following observations apply to logs and records reviewed during the reporting period.

-- A review of the In Plant Status Log on July 8 revealed that no entry had been made since May 17. The licensee explained that the Auxiliary Operator Log and the Equipment Status Board now fulfill the requirements of the In Plant Status Log. This item is unresolved pending a change to Operations Department Standing Order No. 4 (333/80-12-01).

-- On several occasions the inspector discussed the use of the shift turnover sheet with licensee personnel. While the sheet is very comprehensive, periodic carelessness on the part of licensee personnel in filling it out, e.g., failure to indicate alarm conditions, inoperable indication lights, and reasons for out of tolerance readings, has tended to degrade its effectiveness. In the past, the licensee has quickly corrected such oversights noted by the inspector. However, in discussions with the licensee, the inspectors emphasized the need for improvement in maintaining the shift turnover log. This area will continue to be closely monitored by the inspectors to assure appropriate actions are being taken.

c. Plant Tours

(1) During the inspection, the inspector made observations and conducted tours of plant areas including the following:

-- Control Room
-- Relay Room
-- Reactor Building
-- Turbine Building
-- Diesel Generator Rooms
-- Switchgear Rooms
-- Screenwell Building
-- Yard Areas
-- Site Perimeter

(2) The following determinations were made:

-- Monitoring Instrumentation: The inspectors verified that selected instruments were functional and indicated parameters were within technical specification limits.

-- System Operability: The inspectors verified that selected valves in the RHR system were in the position or condition required by the Technical Specifications for the applicable mode. Verification was accomplished by physically observing that each accessible or remote valve position indication was correct.

-- Radiation Protection Controls: The inspectors verified that the licensee's health physics policies and procedures were adhered to in the following areas:

(a) Access control including roping, tagging, posting, and maintenance of step-off pads.

(b) Confirmation of licensee survey results by independent measurement.

(c) Verification that requirements of effective Radiation Work Permits (RWP) are appropriate and are being adhered to.

(d) Verification that radiation protection instruments in use are being calibrated as required.

Several items were identified during tours which were brought to the licensee's attention and were promptly corrected. Those included an improperly roped off contaminated area and poorly maintained control points. While none of these items individually represents a significant hazard, their frequent recurrence is symptomatic of poor control of housekeeping during maintenance activities. This area will be reviewed by the inspectors during future inspections.

-- General Plant Housekeeping: On several occasions the inspectors have discussed with the licensee the detrimental affect of poor housekeeping practices on radiation protection and fire prevention programs. While the licensee has immediately corrected specific areas of concern, there is a tendency to use the recent refueling and torus modification outage and the current extensive fire protection modifications as explanations for generally poor housekeeping practices. The inspectors will continue to review and evaluate the licensee's efforts in this area during future inspections.

-- Fluid Leaks: No significant fluid leaks were observed.

-- Piping Vibrations: No excessive piping vibrations were observed and no adverse conditions were noted.

-- Equipment Tagging: The inspectors verified that the B LPCI independent MOV power supply was properly tagged and that the A power supply was not inadvertantly removed from service.

-- Control Room Annunciators: Selected lit annunciators were discussed with licensee personnel to verify that the alarm conditions were understood and corrective action, if required, was taken.

-- Fire Protection: The inspectors verified that selected fire extinguishers were accessible and inspected on schedule with two exceptions which the licensee quickly corrected. The inspectors observed that fire alarm stations were unobstructed, and that adequate control over ignition sources and fire hazards was maintained with two exceptions which the licensee quickly corrected. On several occasions the establishment of a fire watch was noted when required by technical specifications. As noted above, the inspectors will continue to review fire protection in conjunction with housekeeping practices noted above.

No items of noncompliance were identified.

4. Observation of Physical Security

The inspectors made observations and verified during regular and off-shift hours, that selected aspects of the plants physical security system were in accordance with regulatory requirements, physical security plan, and approved procedures. The following observations relating to physical security were made:

-- The security force on both regular and off-shifts was properly manned and appeared capable of performing their assigned functions.

-- Protected area barriers were intact, and gates and doors closed and locked if not attended.

-- Isolation zones were free of obstructions and objects that could aid an intruder in penetrating the protected area.

-- Persons and packages were checked prior to entry into the protected area.

-- Vehicles were properly authorized, searched, and escorted or controlled within the projected area.

-- Persons within the protected area displayed photo identification badges, persons in vital areas were properly authorized, and persons requiring escort were properly escorted.

No items of noncompliance were identified.

5. Monthly Maintenance Observation

The inspector reviewed maintenance activity associated with the repair of B LPCI MOV independent power supply and observed portions of the work. The review and observations included the determination that:

-- This activity was not in violation of paragraph 3.9.F of the plant technical specifications.

-- The A LPCI MOV independent power supply was operable.

-- Required administrative approvals and tagouts were obtained prior to initiating the work.

-- Approved Maintenance Procedure No. 57.4 which references the Exide UPS technical manual was used.

-- The procedures used were adequate to control the activity.

-- Activity was accomplished by qualified personnel including the vendor technical representative.

-- Equipment was properly tested prior to return to service.

The inspector independently verified that the B LPCI MOV independent power supply was properly returned to service through a breaker alignment check.

No items of noncompliance were identified.

6. Inspector Witnessing of Surveillance Tests

The inspector witnessed the performance of several surveillance tests to verify the following:

-- Surveillance test procedures conform to Technical Specification requirements and have been properly approved.

-- Test instrumentation is calibrated.

-- Applicable limiting conditions for operation are being met.

-- Systems are properly returned to service.

-- Test data is accurately recorded, meets Technical Specification requirements, and is properly reviewed.

-- Testing is performed by qualified personnel.

The inspector witnessed the performance of the following surveillance tests.

-- Reactor Analyst Procedure 7.3.9, Shutdown Margin Check, Revision 3, August 13, 1980. Performed August 9, 1980.

-- F-ST-24A, ISI RCIC Pump Operability Test, Revision 5, December 1, 1978. Performed August 10, 1980.

-- F-ST-24C, RCIC Flow Rate Test, Revision 4, December 1, 1978. Performed August 10, 1980.

-- F-ST-4B, HPCI Flow Rate Test, Revision 5, December 1, 1978. Performed August 10, 1980.

-- F-ST-4C, HPCI Pump Operability Test, Revision 6, December 1, 1978. Performed August 10, 1980.

-- F-ST-4A, HPCI Simulated Automatic Actuation Test, Revision 4, February 18, 1977. Performed August 10, 1980.

-- F-ST-31A, Drywell Isolation Valves, Atmospheric Control Valves, Sump Drain Valves, and TIP Withdrawal Simulated Automatic Isolation Test, Revision 1, November 15, 1977. Performed August 8, 1980.

No items of noncompliance were identified.

7. Preparation for Plant Startup Following Refueling

The inspector reviewed the following completed procedures and valve lineup checks to verify that they were performed as required by station startup procedure and that they were properly completed and reviewed prior to plant startup. Valve lineup checks associated with the following procedures were reviewed:

-- F-OP-1, Main Steam System, Revision 7, February 28, 1980. Performed August 9, 1980.

-- F-OP-14, Core Spray System, Revision 3, May 31, 1980. Performed July 9, 1980.

-- F-OP-16, Neutron Monitoring, Revision 3, May 12, 1980. Performed July 10, 1980.

-- F-OP-17, Standby Liquid Control System, Revision 3, February 28, 1980. Performed July 14, 1980.

-- F-OP-18, Reactor Protection System, Revision 2, February 28, 1980. Performed July 10, 1980.

-- F-OP-20, Standby Gas Treatment System, Revision 4, March 11, 1980. Performed June 29, 1980.

-- F-OP-21, Emergency Service Water, Revision 2, March 11, 1980. Performed July 9, 1980.

-- F-OP-22, Diesel Generator Emergency Power System, Revision 4, June 11, 1980. Performed June 29, 1980.

-- F-OP-26, Control Rod Drive Manual Control System, Revision 1, June 1, 1979. Performed July 10, 1980.

-- F-OP-27, Recirculation System, Revision 3, May 12, 1980. Performed August 5, 1980.

-- F-OP-25, Control Rod Drive Hydraulic System, Revision 4, June 11, 1980. Performed June 29, 1980.

-- F-OP-28, Reactor Water Cleanup System, Revision 4, February 27, 1979. Performed July 14, 1980.

-- F-OP-31, Process Radiation Monitoring System, Revision 4, August 10, 1979. Performed July 10, 1980.

-- F-OP-40, Reactor Building Closed Loop Cooling System, Revision 1, October 12, 1976. Performed August 5, 1980.

The inspector verified that valves which were noted as being in the incorrect positions during the performance of the valve checkoffs were placed in the correct position for startup prior to startup.

During the review of the above procedures, the inspector noted the following discrepancies:

-- Form II, Final Prestart Check-off, a part of Procedure F-OP-65, Startup and Shutdown Procedure in use during the preparation for startup was Revision 3 when a later Revision 4 had been issued.

-- The control room master copy of F-OP-18, Reactor Protection System, was Revision 2 (2/28/80), while the Shift Supervisors' (SS) operating procedures manual contained Revision 1 (2/13/76) of the same procedure.

-- The control room master index of procedures was dated July 26, 1980 while the SS's index of operating procedures was dated June 27, 1980.

-- Procedure F-OP-25, Control Rod Drive Hydraulic System, was missing from the SS's procedures manual.

-- The control room procedures manual copy of Procedure F-OP-13, Residual Heat Removal System, was Revision 6 (9/14/79) while the SS's procedures manual copy was Revision 3 (5/6/76).

-- The master index listed the latest Procedure F-OP-30, Fuel Pool Cooling and Clean-Up System as being Revision 3 (2/27/79) while both the SS's and control room procedures manuals contained Revision 2 (11/7/78).

Action was immediately taken by the licensee to correct deficiencies relating to procedures.

The inspector informed the licensee that failure to adequately control the distribution of plant operating procedures is contrary to the requirements of Administrative Procedure No. 1.4, Control of Plant Procedures, and is considered to be an item of noncompliance at the deficiency level.

8. Plant Startup Following Refueling

The inspector verified the completion of F-OP-65, Form II, Final Prestart Check-Off, and witnessed portions of the plant startup conducted on August 9-10, 1980 to verify the startup was conducted in accordance with F-OP-65, Startup and Shutdown Procedure, Revision 4, September 14, 1979. Portions of the startup which were witnessed included:

-- Final prestart checks
-- Initial rod withdrawals
-- Reactor heatup and pressurization
-- RCIC surveillance testing
-- HPCI surveillance testing
-- Turbine roll and synchronization of unit
-- Turbine overspeed test

No items of noncompliance were identified.

9. Licensee Actions Taken in Response to IE Bulletin No. 80-17

The following actions were taken by the inspectors to verify that the actions required by IE Bulletin 80-17 have been satisfactorily completed.

a. The facility was shutdown for refueling and maintenance at the time the Bulletin was issued. It was therefore noted that the surveillance requirements of paragraph 1 were not applicable.

The inspector verified by observations, document review and discussions with personnel that prior to startup the Scram Discharge Volume (SDV), associated with piping and the scram Discharge Instrument Volume (SDIV) were free of water. In addition, the SDV vent and drain valves were verified operable and the vent and drain system free of obstructions. Also the SDV vent lines were modified to provide a vent path continuously open to the reactor building atmosphere.

Initial surveillance testing of the SDV was performed on August 9, 1980 following reactor startup and continued daily thereafter when the system was required. Following the manual scram test ultrasonic examination of the piping associated with the system revealed a residual volume of water in the 2 inch drain line between the east side SDV and the SDIV. Measurements revealed a loop seal of between 5 and 6 inches in height is present in the 2 inch drain line due to improper pitch of a portion of the line. The improper pitch is believed to be the result of a construction deficiency.

Prior to further operation, a safety evaluation was conducted to provide assurance that the loop seal does not effect the operability of the SDV system. Additional daily ultrasonic examination of the section of the pipe containing the loop seal is also being conducted.

The following documents were reviewed:

-- FPF-80148, UT Procedure for Detection of Water in Horizontal or Vertical Piping Runs, July 3, 1980.

-- F-ISP-66-1, Scram Discharge Volume High Water Level Instrument Functional Test/Calibration, Revision 4, July 1980.

b. Prior to the performance of the required scram testing the inspector reviewed the implementing procedure to verify that all Bulletin requirements had been incorporated.

The following procedure was reviewed:

Temporary Procedure No. 41, Shutdown Capability Verification, Revision 0, July 30, 1980.

c. The inspector witnessed the performance of both the manual scram test performed on August 11, 1980 and the automatic scram test performed on August 13, 1980. The inspector verified both tests were performed in accordance with procedural requirements.

d. The inspector reviewed all data taken from both scram tests.

e. The inspectors both independently and with licensee personnel walked down portions of the SDV vent and drain systems to verify the adequacy of the "as built" SDV system.

f. Following both required reactor scrams the inspector witnessed the UT examination performed to verify that no significant amount of water remained in the SDV.

g. The inspectors reviewed Emergency Operating F-EOP-25 Reactor Scram, Revision 1, July 30, 1980 to verify that all operator actions required by the Bulletin have been incorporated into the procedure. Also, the inspectors verified by discussions with operators and by a review of training department records that the training required by the Bulletin was provided to the operators.

h. The inspectors reviewed Operations Department Standing Order No. 12, Requirements of NRC Bulletin 80-17, Revision 1, August 13, 1980 to verify that Bulletin requirements relating to prompt notification of degradation of certain systems and the use of suppression pool cooling when the suppression pool exceeds the normal operating temperature limit.

The inspectors had no further questions with regard to the areas reviewed.

10. Operational Event

During normal operation at approximately 4:40 AM on August 14, 1980, following plant startup and when making preparation to inert primary containment, both trains of the Standby Gas Treatment (SGT) System were found to be inoperable. The Technical Specifications required that the SGT system be operable. The inspector verified that an orderly plant shutdown was commenced.

Investigation revealed that the 24 inch line from SGT to the stack was partially filled with water. The water accumulation occurred as a result of a 2 inch drain line from the 24 inch line to the radwaste system being blocked. The 24 inch line also serves as a drain line from the stack sump to the Reactor Building. This blockage of the 2 inch drain allowed an accumulation of water to build up until the SGT system could no longer discharge through the 24 inch line.

The 2 inch drain line was unplugged by pressurizing with air and the 24 inch line was drained. Surveillance testing of the SGT system was conducted and the system declared operable approximately 12 hours after discovery of the blockage.

The inspector had no further questions on this item.

11. Verifying Licensee Application Submittals for Licensee Training Staff Personnel

By discussion with the licensee, the inspectors determined that four members of the licensee training staff currently hold Senior Reactor Operator's licenses. The fifth member of the training staff is under contract from General Electric to FitzPatrick and is certified as a senior reactor operator on Dresden Units 2 and 3 in addition to being a graduate nuclear engineer.

12. Location of Certain Load Centers

The inspectors determined by discussion with licensee personnel that there are no valves which are required by technical specifications to be locked in a particular position during operation which require entry into the containment to unlock.

13. Main Steam Isolation Valve Leak Rate Testing

The inspector performed a detailed review of records and completed surveillance test procedures for the surveillances performed on the Main Steam Isolation Valves during the refueling period. Records for a total of 18 separate surveillance tests were reviewed. The surveillances were performed in accordance with Surveillance Test Procedure F-ST-33B, Type "B" and "C" LLRT of Containment Penetrations. Identified leakage rates were as follows:

"A" Main Steam Line Valves 29-AOV-80A and 29-AOV-86A.

Date	Valve(s)	Leakage (SCFH)
5/8/80	Combined 80A and 86A	9.3
6/14/80	Combined 80A and 86A	24.3
7/1/80	Combined 80A and 86A	30.3
7/1/80	86A	23.5
7/10/80	86A	<.043
7/11/80	86A	<.043

"B" Main Steam Line Valves 29-AOV-80B and 29-AOV-86B

5/8/80	Combined 80B and 86B	.12
6/14/80	Combined 80B and 86B	9.308

"C" Main Steam Line Valves 29-AOV-80C and 29-AOV-86C.

5/8/80	Combined 80C and 86C	~30
5/9/80	Combined 80C and 86C	12.34
5/10/80	86C	17.55
5/14/80	Combined 80C and 86C	5.13
6/14/80	Combined 80C and 86C	4.11

"D" Main Steam Line Valves 29-AOV-80D and 29-AOV-86D

5/8/80	Combined 80D and 86D	42.4
5/26/80	Combined 80D and 86D	Gross
5/29/80	Combined 80D and 86D	Gross
6/10/80	Combined 80D and 86D	.732
6/14/80	Combined 80D and 86D	.236

No items of noncompliance were identified.

14. Unresolved Items

Unresolved items are those items for which further information is required to determine whether the item is acceptable or an item of noncompliance. An unresolved item is discussed in Paragraph 3.b(4) of this report.

15. Exit Interview

At periodic intervals during the course of this inspection, meetings were held with senior facility management to discuss inspection scope and findings.