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

Region I

Report No. 50-333/79-03

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 Plant

Inspection at: Scriba, New York

Inspection conducted: March 20-23, 1979

Inspectors: H. Smith for 5/3/79
J. C. Higgins, Reactor Inspector date signed

date signed

date signed

Approved by: H. H. Nicholas for 5/3/79
D. L. Caphton, Chief, Nuclear Support date signed
Section No. 1, RO&NS Branch

Inspection Summary:

Inspection on March 20-23, 1979 (Report No. 50-333/79-03):
Areas Inspected: Routine unannounced inspection by a regional based inspector of backshift operations, containment leak rate testing, inservice testing of pumps and valves and previous inspection findings. The inspection involved 24.5 inspector-hours on site by one NRC regional based inspector.
Results: No items of noncompliance were identified.

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Region I Form 12
(Rev. April 77)

DETAILS

1. Persons Contacted

The below listed technical and supervisory personnel were contacted.

*E. Abbott, Operating Superintendent
R. Baker, Maintenance Superintendent
V. Childs, Assistant to Resident Manager
R. Converse, Assistant Operating Superintendent
W. Fernandez, Assistant to Maintenance Superintendent
J. Ford, I&C Superintendent
*J. Hoddy, Reliability and Performance Supervisor
S. Hudson, Shift Supervisor
H. Keith, Assistant to I&C Superintendent
*J. Leonard, Resident Manager
*R. Pasternak, Superintendent of Power
W. Sanborn, Shift Supervisor

* denotes those present at the exit interview.

The inspector also talked with and interviewed several other members of the technical and operating staffs.

2. Licensee Action on Previous Inspection Findings

(Closed) Item of Noncompliance (333/77-22-09): This item was also reviewed in report 77-32. The inspector reviewed records of the last several snubber visual inspections and several other completed surveillance tests and noted that there was no difficulty in retrieving them. The Record Management System is still being backfitted with past records, but the inspector noted no problems with present retrievability. This item is closed.

(Closed) Unresolved Item (333/78-22-01): This item was also reviewed in report 78-26. All penetrations isolated during the CILRT received local leak rate tests before and after repair. The post-repair leakage has been added to the Type A test leakage. Results are summarized in Table 1. The licensee has included in Part C of his Leak Rate Test Report the test results corrected for instrument error. The leakage rate was acceptable with the corrections applied. This item is closed.

(Closed) Unresolved Item (333/78-22-02): While reviewing this unresolved item, the licensee verified that Technical Specification (TS) Surveillance Tests were not performed on newly installed containment isolation valves and submitted Licensee Event Report 78-112 dated January 25, 1979. Procedures have since been revised and the valves tested satisfactorily. Additionally, the inspector reviewed a draft TS change which will incorporate these valves into Table 3.7.1 of the TS's. This item is closed.

(Closed) Unresolved Item (333/78-22-05): The inspector reviewed Maintenance Procedure No. 100.2, Revision 1, dated December 5, 1978, for snubber visual inspections and noted that the acceptance criteria, step 7.2, now specify that a snubber is inoperable if the piston setting is unsatisfactory. This item is closed.

(Closed) Followup Item (333/78-22-06): The inspector reviewed the licensee's procedures for inservice testing of pumps and valves under Section XI. Results of this review are discussed in paragraph 5 of this report.

(Closed) Unresolved Item (333/78-22-07): The inspector reviewed the latest revision to SP-2 dated December 1, 1978, and noted that it contained precautions against initiating the Main Steam Leak Collection System if the Main Condenser is intact and that it specified actuation of the system within approximately 20 minutes of an accident requiring its use. This item is closed.

(Closed) Unresolved Item (333/78-22-08): The inspector reviewed Revision 6 to OP-1 dated February 27, 1979, and noted that it was a complete rewrite of Revision 5. The new revision, however, contains appropriate references to the Main Steam Leak Collection System. This item is closed.

(Closed) Unresolved Item (333/78-26-01): The inspector reviewed information from the Dewcel calibration facility which documented their calibration traceable to the National Bureau of Standards. This item is closed.

(Open) Unresolved Items (333/77-32-04 and 07): The licensee's current Type B&C leakage total is less than 0.60 La utilizing the conservative ratio for MSIV leakage and the smaller value (3216 SCFD) of leakage for an acceptance criteria. The licensee procedures have not been revised to require these two conservatisms. The licensee's representative stated that these conservatisms may not be required. The inspector noted that, although the licensee had produced no valid basis for his position, current leakage is within the conservative limits. This item remains unresolved.

(Open) Unresolved Item (333/78-26-02): As discussed in this item and as confirmed by onsite review of final leakage rate data, the initial attempt of the periodic Type A test failed to meet the acceptance criteria of 0.75 La or 0.375 %/Day. The inspector determined this initial leak rate by taking the final leak rate at the 95% upper confidence level and adding corrections for flooded lines and lines isolated during the Type A test. The initial leak rate at the 95% upper confidence level was thus determined to be 0.449 %/Day plus some small unknown value of leakage through the nine valve packings which were tightened during the test. This item remains open pending the review of the licensee's future test schedule by the Commission, as required by paragraph III.A.6.(a) of Appendix J to 10 CFR 50.

3. Backshift Inspection

The inspector commenced the inspection at 6:45 p.m., on March 20, 1979. The following items were reviewed by the inspector during this phase of the inspection:

-- Alertness of security personnel and integrity of portions of the protected area boundary;

-- Control room manning;

-- Plant in cold shutdown as required by NRC Order;

-- Control room logs and various plant parameters on the control panels;

-- Core instrumentation;

-- Reasons for selected lighted annunciators;

-- Status of maintenance in progress; and

-- General condition of facility, including Reactor Building, Turbine Building, Cable Spreading Areas and Relay Room.

No unacceptable conditions were identified.

4. Containment Leak Rate Testing

a. General

The inspector reviewed the licensee's leak rate test report titled "Reactor Containment Building Integrated Leak Rate Test, Type A, B and C Periodic Tests for January, 1976 to November, 1978" and related procedures and data onsite. The documents were reviewed for accurate data transcription, proper instrument calibration, correctness of analytical methods, and proper additions and corrections to the final leak rate. No items of noncompliance were identified.

b. Satisfactory Containment Integrated Leak Rate Test (CILRT)

The inspector performed calculations and using raw data independently verified: the inclusion of instrument calibration corrections, the computed contained air mass values, the containment leakage rate, the 95% upper confidence level on the leakage rate, and local leak rate test additions. Test results are summarized in Table 1. The inspector's independent calculations agree substantially with the licensee's values and indicate that the CILRT was satisfactorily completed.

c. Main Steam Isolation Valves (MSIV's)

During the CILRT excessive leakage was detected through the A main steam line and an "air plug" was established between the two MSIV's. Thus valve repairs and local leak rate testing after the CILRT were required on these valves and the results were added to the CILRT leakage. While the summation of all leakages met the Type A test acceptance criteria (see Table 1), the outboard A-MSIV was unable to meet its individual acceptance criteria of 276 standard cubic feet per day (SCFD). Leakage was 295 SCFD. The plant's licensee (Table 3.7.2 of TS) was amended to allow operation during cycle 3 with the A outboard MSIV leakage not to exceed 300 SCFD, provided the total leakage of the 4 outboard MSIV's did not exceed 1104 SCFD.

During the current inspection the plant was shutdown and the licensee retested the A-outboard MSIV. The leakage rate was 407.71 SCFD, thus requiring valve repairs and further testing prior to plant startup. The inspector had no further questions in this area at this time.

478 ~~401~~ 156

5. Inservice Testing of Pumps

a. Documents Reviewed

-- Initial Inservice Testing Program for Pumps and Valves, submitted to the NRC on September 1, 1978.

-- "RHR Pump Flow Rate Test (ISI)," F-ST-2A, Revision 3, January 12, 1979.

-- "RHR Pump Operability Test (ISI)," F-ST-2B, Revision 1, January 12, 1979.

-- "RHR Service Water Pump Flow Rate Test," F-ST-2E, Revision 3, January 15, 1979.

-- "RHR Service Water Pump and MOV Operability Test," F-ST-2R, Revision 3, January 12, 1979.

-- "Core Spray Pump Flow Rate Test (ISI)," F-ST-3A, Revision 1, January 15, 1979.

-- "HPCI Flow Rate Test (ISI)," F-ST-4B, Revision 5, February 17, 1979.

-- "Standby Liquid Control Pump Functional Test (ISI)," F-ST-6A, Revision 5, January 3, 1979.

-- Subsection IWP of Section XI to the ASME Boiler and Pressure Vessel Code, 1974 Edition through Summer 1975 Addenda (IWP).

b. Scope

The inspector reviewed the licensee's pump test procedures for conformance with Subsection IWP as modified by his submittals to the NRC. The inspector verified that testing of all pumps in the program submittal was covered by properly approved procedures and that the procedures met the requirements of IWP. The inspector reviewed a sampling of completed test results for pump tests performed since program implementation November 28, 1978. The inspector noted that a meeting was scheduled in April between the licensee and the NRC to discuss requested exemptions from Section XI and with the exception of the below items had no further questions in the pump testing area.

478

157

c. Reference Conditions

In order that test conditions may be readily duplicated during all inservice testing, Section XI requires that reference conditions of flow or differential pressure and pump speed be established. Several of the pump test procedures reviewed did not establish these reference conditions for the test in question (e.g., RHR, RHR Service Water and HPCI). This item is unresolved (333/79-03-01).

d. Test Analysis

None of the pump test procedures reviewed contained reference values for measured parameters, the acceptance criteria specified in IWP-3210, the requirement for a 96 hour review of results, or the specified corrective actions of IWP-3230. This item is unresolved (333/79-03-02).

e. Pump Lubricant

The pump test procedures reviewed did not verify proper pump lubricant level or pressure as required by IWP-3100. This item is unresolved (333/79-03-03).

f. Minimum Run Time

The pump test procedures reviewed did not specify the minimum run time of 5 minutes prior to data taking required by IWP-3500. The item is unresolved (333/79-03-04).

6. Inservice Testing of Valves

a. Scope

The inspector reviewed the licensee's valve testing procedures for conformance with Subsection IWV of Section XI to the ASME Boiler and Pressure Vessel Code (IWV) as modified by his submittals to the NRC. The inspector reviewed a sampling of completed valve tests performed since program implementation on November 28, 1978. With the exception of the below items the inspector had no further questions in this area at this time.

~~461~~ 158
478

b. Valve Stroke Times

Many of the licensee's procedures do not specify maximum stroke times for Category B valves as required by IWV-3410(c). Additionally, the procedures do not compare valve stroke times with those of previous tests to determine degradation. This item is unresolved (333/79-03-05).

7. Unresolved Items

Items about which more information is required to determine acceptability are considered unresolved. Paragraphs 5 and 6 of this report contain unresolved items.

8. Exit Interview

At the inspection's end the inspector held a meeting (see Detail 1 for attendees) to discuss the inspection scope and findings. The unresolved items were identified. The licensee's representative stated that every effort would be made to revise procedures to correct the unresolved items by May 1, 1979; and that if not revised by then, they would be completed before July 1, 1979. The inspector acknowledged these comments.

TABLE 1

CILRT Conducted at P_a (45 PSIG) at J. A. FitzPatrick

Item	Acceptance Criteria	Reported Results	Inspector's Findings
1. Containment Leak Rate (Mass Point)	--	0.292 %/Day	0.292 %/Day
2. Upper 95% Confidence Level on Leak Rate (Mass Point)	< 0.375 %/Day	0.298 %/Day	0.298 %/Day
3. Local Leak Rate Test Additions (Type B&C)	--	0.038 %/Day	0.045 %/Day
4. Containment Leak Rate at Upper 95% Confidence Level Plus Required Additions	< 0.375 %/Day	0.336 %/Day	0.343 %/Day
5. Supplemental Verification Test Difference	< 99 lbm	32.1 lbm	32.7 lbm

274
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