

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

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Report No. 85-02
Docket No. 50-333
License No. DPR-59 Priority -- Category C
Licensee: Power Authority of the State of New York
Post Office Box 41
Lycoming, New York 13093

Facility Name: J. A. FitzPatrick Nuclear Power Plant

Inspection At: Scriba, New York

Inspection Conducted: January 1,- February 20, 1985

Inspector: *L. J. Doerflin*
L. J. Doerflin, Senior Resident Inspector

3/22/85
date

Approved By: *J. C. Linville*
J. C. Linville, Chief, Reactor Projects
Section 2C

3/12/85
date

Inspection Summary: Inspection on January 1,- February 20, 1985 (Report No. 50-333/85-02)

Areas Inspected: Routine and reactive inspection during day and backshift hours by one resident inspector (91 hours) of licensee event report review, operational safety verification, surveillance observations, maintenance observations, followup on a plant trip, engineered safety feature system walkdown, and review of periodic and special reports.

Results: One violation was identified in the areas inspected: Continued operation in excess of the Limiting Condition for Operation time requirement with an inoperable Pressure Suppression Chamber to Reactor Building Vacuum Breaker (Details paragraph 3.c.).

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DETAILS

1. Persons Contacted

- R. Baker, Technical Services Superintendent
- V. Childs, Senior Licensing Engineer
- * R. Converse, Superintendent of Power
- M. Curling, Training Superintendent
- * W. Fernandez, Operations Superintendent
- * H. Glovier, Resident Manager
- * H. Keith, Instrument and Control Superintendent
- D. Lindsey, Assistant Operations Superintendent
- * R. Liseno, Maintenance Superintendent
- E. Mulcahey, Radiological & Environmental Services Superintendent
- R. Patch, Quality Assurance Superintendent
- T. Teifke, Security & Safety Superintendent

The inspector also interviewed other licensee personnel during this inspection including shift supervisors, administrative, operations, health physics, security, instrument and control, maintenance and contractor personnel.

*Denotes those present at the exit interview.

2. Licensee Event Report (LER) Review

The inspector reviewed LER's to verify that the details of the events were clearly reported. The inspector determined that reporting requirements had been met, the report was adequate to assess the event, the cause appeared accurate and was supported by details, corrective actions appeared appropriate to correct the cause, the form was complete and generic applicability to other plants was not in question.

LER's 85-01 and 85-02* were reviewed.

*LER selected for onsite followup.

LER 85-02 reported that, while operating at full power, no Shift Technical Advisor (STA) was on site for a total of approximately 9 1/2 hours on January 17 and 18, 1985. In a letter dated December 11, 1984, NRR approved the licensee's request to have Senior Reactor Operators (SRO's) who completed a special technical training program serve in a dual role as SRO/STA. The licensee implemented this dual role position on December 21, 1984. The inspector noted that the licensee prepared a shift rotation schedule which identified those individuals qualified as SRO/STA and that one such individual was assigned to each shift.

On January 17 and 18, 1985, the normally assigned swing shift, Shift Supervisor, who was fulfilling the SRO/STA function, had another Shift Supervisor, who did not meet the qualifications of an STA, stand in for him. This change was approved by departmental supervision, however, no consideration was given to the STA qualification requirements. The Shift Supervisor recognized the error at 6:30 p.m. on January 18, 1985, and called in a qualified STA who was on site by 7:30 p.m. The inspector noted that, although not assigned to the shift, a member of the operating department staff qualified as an STA was on site and in the control room until 5:00 p.m. on each of the above days.

To prevent recurrence the inspector noted that the licensee added a separate sign-off on the shift turnover sheet for the STA function, posted a sign in the Shift Supervisor's office which clearly identifies those individuals who must be on shift to fulfill the STA or SRO/STA function, instructed the individuals who stand the SRO/STA position of their responsibilities in ensuring a properly qualified shift relief, and instructed departmental supervision on ensuring all shift requirements are met when approving personnel exchanges.

The inspector also noted that the unqualified individual has completed 66 credit hours (compared to the 80 credit hours obtained in the licensee's special technical training program) of technical/engineering work in pursuit of a Bachelor of Science degree. He had also completed other training required for STA qualification such as mitigation of core damage. Because of the near qualification (as STA) of the individual involved, the inspector determined that this event had minor safety significance.

3. Operational Safety Verification

a. Control Room Observations

Daily, the inspector verified selected plant parameters and equipment availability to ensure compliance with limiting conditions for operation of the plant Technical Specifications. Selected lit annunciators were discussed with control room operators to verify that the reasons for them were understood and corrective action, if required, was being taken. The inspector observed shift turnovers biweekly to ensure proper control room and shift manning. The inspector directly observed the operations listed below to ensure adherence to approved procedures:

- Routine power operation.
- Operator actions following the reactor scram on February 15, 1985.
- Issuance of RWP's and Work Request/Event/Deficiency forms.

No violations were identified.

b. Shift Logs and Operating Records

Selected shift logs and operating records were reviewed to obtain information on plant problems and operations, detect changes and trends in performance, detect possible conflicts with Technical Specifications or regulatory requirements, determine that records are being maintained and reviewed as required, and assess the effectiveness of the communications provided by the logs.

No violations were identified.

c. Plant Tours

During the inspection period, the inspector made observations and conducted tours of the plant. During the plant tours, the inspector conducted a visual inspection of selected piping between containment and the isolation valves for leakage or leakage paths. This included verification that manual valves were shut, capped and locked when required and that motor operated valves were not mechanically blocked. The inspector also checked fire protection, housekeeping/cleanliness, radiation protection, and physical security conditions to ensure compliance with plant procedures and regulatory requirements.

At 9:45 a.m. on February 12, 1985, while operating at full power, the licensee declared one of the Pressure Suppression Chamber to Reactor Building Vacuum Breakers (valve no. 27-VB-7) inoperable upon discovering that scaffolding had been built over the valve's counter balance arm. This weighted arm ensures that the valve remains seated until a pressure differential of 0.5 psid exists across the seat and moves in the upward direction when the valve opens. Although the vacuum breaker was not tested in the as-found condition, the licensee determined that the scaffolding would have restricted movement of the counter balance arm. There are two Pressure Suppression Chamber to Reactor Building Vacuum Breakers and the inspector noted that the other one was operable. As indicated in the Final Safety Analysis Report and the Technical Specification bases, each valve is capable of providing 100% vacuum relief.

The licensee immediately removed the scaffolding and declared the vacuum breaker operable at 12:40 p.m. on February 12, 1985. The licensee held meetings with craft supervisors to determine when the scaffolding was installed and to discuss the cause and consequences of this event. The licensee determined that the scaffolding was erected around the vacuum breaker during the afternoon on February 1, 1985. The inspector noted that this was the second time in the past few years that scaffolding was erected around this vacuum breaker, although the licensee proved the valve still operable during the

first instance. The inspector informed the licensee that power operation from February 1-12, 1985, a period of eleven days, with an inoperable Pressure Suppression Chamber to Reactor Building Vacuum Breaker was a violation of Technical Specification 3.7.A.4.b. which only allows continued reactor operation during the succeeding 7 days after one of the Pressure Suppression Chamber to Reactor Building Vacuum Breakers is made or found to be inoperable for any reason. (333/85-02-01)

d. Tagout Verification

The inspector verified that the following safety-related protective tagout records (PTR's) were proper by observing the positions of breakers, switches and/or valves.

- PTR 841558 on the "B" Low Pressure Coolant Injection System battery.
- PTR 841613 on the "B" Emergency Service Water System and the "B" and "D" Emergency Diesel Generators.
- PTR 841614 on the "A" Core Spray System.

No violations were identified.

e. Emergency System Operability

The inspector verified operability of the following systems by ensuring that each accessible valve in the primary flow path was in the correct position, by confirming that power supplies and breakers were properly aligned for components that must activate upon an initiation signal, and by visual inspection of the major components for leakage and other conditions which might prevent fulfillment of their functional requirements.

- Standby Liquid Control System
- Emergency Diesel Generator Fuel Oil and Air Start Systems
- Core Spray System
- Reactor Core Isolation Cooling System

No violations were identified.

4. Surveillance Observations

- a. The inspector observed portions of the surveillance procedures listed below to verify that the test instrumentation was properly calibrated, approved procedures were used, the work was performed by qualified personnel, limiting conditions for operation were met, and the system was correctly restored following the testing:
 - F-ST-4B, HPCI Flow Rate/HPCI Pump Operability/HPCI Valve Operability Tests, Revision 19, dated January 3, 1985, performed January 15 and February 15, 1985
 - F-ST-16H, LPCI Independent Power Supply Performance Discharge Test, Revision 3, dated April 27, 1983, performed January 16, 1985.
 - F-ST-39B, Type "B" and "C" LLRT of Containment Penetrations, Revision 12, dated February 4, 1985, performed February 7, 1985.
- b. The inspector also witnessed all aspects of the following surveillance test to verify that the surveillance procedure conformed to technical specification requirements and had been properly approved, limiting conditions for operation for removing equipment from service were met, testing was performed by qualified personnel, test results met technical specification requirements, the surveillance test documentation was reviewed, and equipment was properly restored to service following the test.
 - F-ST-4B, HPCI Flow Rate/HPCI Pump Operability/HPCI Valve Operability Tests, Revision 19, dated January 3, 1985, performed February 14, 1985.
- c. The inspector reviewed procedure F-ST-39A, "Type 'B' Leak Rate Test (Air Locks)," and several completed data sheets for tests performed during 1983 and 1984 to verify that the licensee is performing leak rate testing of the containment air locks as required by 10 CFR 50 Appendix J and the plant's Technical Specifications. Based on this review and on discussions with licensee personnel, the inspector noted that the licensee has established the practice of testing air locks, which have been opened during periods when containment integrity was not required (cold shutdown), within 24 hours after placing the mode switch in run during the subsequent startup. This facilitates containment entries during plant startup to inspect for system leakage, however, it appears to be contrary to 10 CFR 50 Appendix J Section III.D.2.6.b (ii) which requires that air locks opened during periods when containment integrity is not required by the plant's Technical Specifications be tested at the end of such periods.

The licensee informed the inspector that he plans on requesting an exemption from Appendix J and revising the Technical Specifications to defer the full pressure air lock test until after the last containment entry is made during plant startups from such periods. The licensee proposes performing a seal test prior to startup to provide earlier assurance of air lock integrity. The inspector noted such an exemption was recently approved for another BWR facility (TACS 10137). The inspector informed the licensee that this item would remain unresolved pending NRC approval of the licensee's exemption request for 10 CFR 50 Appendix J Section III.D.2.6.b (ii). (333/85-02-02)

The inspector noted that, for the data reviewed, the personnel air lock passed each leak rate test.

5. Maintenance Observations

- a. The inspector observed portions of various safety-related maintenance activities to determine that redundant components were operable, these activities did not violate the limiting conditions for operation, required administrative approvals and tagouts were obtained prior to initiating the work, approved procedures were used or the activity was within the "skills of the trade," appropriate radiological controls were properly implemented, ignition/fire prevention controls were properly implemented, and equipment was properly tested prior to returning it to service.
- b. During this inspection period, the following activities were observed:
 - WR 13/21055 on the Reactor Core Isolation Cooling System Turbine inspection.
 - WR 76/28627 on the cleaning of terminals and replacement of battery connectors on the Diesel Fire Pump starting batteries.
 - WR 11/28727 on the repacking of "B" Standby Liquid Control Pump.
 - WR 46/34611 on the troubleshooting and repair of the "A" Emergency Service Water Pump breaker.

No violations were identified.

6. Followup on a Plant Trip

At 4:47 p.m. on February 15, 1985, the reactor tripped from approximately 60% power due to a turbine trip. The turbine trip was apparently caused by a failure in the power/load unbalance circuit which was being tested at the time. This scheduled test, which was performed in accordance with an

approved procedure, involves simulating a loss of load by grounding the current signals measuring generator load while a time delay relay inhibits the trip function. The licensee is investigating the malfunction of the power/load unbalance circuit and indicated that the cause of the turbine trip would be identified and corrected prior to startup from the refueling outage which began following the plant trip. The inspector will review the results of the licensee's investigation and corrective action in a subsequent inspection. (333/85-02-03)

The inspector was in the control room at the time of the reactor trip and observed operator response to the event. The inspector also reviewed the process computer alarm printout, the post trip log, various chart recorders, and the completed data sheets for procedure No. ODSO 23, "Post Trip Evaluation." Based on these observations and reviews the inspector determined that the operator's actions during the event were proper and in accordance with approved procedures and that the plant responded as designed. There was no Emergency Core Cooling System actuation or radioactive release associated with this trip.

7. Engineered Safety Feature (ESF) System Walkdown

The inspector verified the operability of the following ESF system by performing a complete walkdown of accessible portions of the system to confirm that system lineup procedures match plant drawings and the as-built configuration, to identify equipment conditions that might degrade performance, to determine that instrumentation is calibrated and functioning, and to verify that valves are properly positioned and locked as appropriate.

-- Standby Gas Treatment System

No violations were identified.

8. Review of Periodic and Special Reports

Upon receipt, the inspector reviewed periodic and special reports. The review included the following: Inclusion of information required by the NRC; test results and/or supporting information consistent with design predictions and performance specifications; planned corrective action for resolution of problems, and reportability and validity of report information. The following period reports were reviewed:

-- December 1984 Operating Status Report, dated January 10, 1985.

-- January 1985 Operating Status Report, dated February 8, 1985.

9. Unresolved Items

Unresolved items are matters about which more information is necessary in order to determine whether they are acceptable. Paragraph 4 of this report contains an unresolved item.

10. Exit Interview

At periodic intervals during the course of this inspection, meetings were held with senior facility management to discuss inspection scope and findings. On February 22, 1985, the inspector met with licensee representatives (denoted in paragraph 1) and summarized the scope and findings of the inspection as they are described in this report.

Based on his review of this report, the inspector determined that this report does not contain information subject to 10 CFR 2.790 restrictions.