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REGION I

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Report No. 84-08

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: J. A. FitzPatrick Nuclear Power Plant

Inspection At: Scriba, New York

Inspection Conducted: May 1-31, 1984

Inspectors:

L. T. Doerflinger for
L. T. Doerflinger
Senior Resident Inspector

8/2/84
date

Approved by:

S. J. Collins for
S. J. Collins, Chief,
Reactor Projects Section 2C
9/3/84

8/2/84
date

Inspection Summary:

Inspection on May 1-31, 1984 (Report No. 50-333/84-08)

Areas Inspected: Routine and reactive inspection during day and backshift hours by one resident inspector (65 hours) of licensee action on previous inspection findings, licensee event report review, operational safety verification, surveillance observations, maintenance observations, follow-up on Operational Assessment Team Inspection findings, engineered safety feature system walkdown, and review of periodic and special reports.

Results: No violations were identified in the areas inspected.

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DETAILS

1. Persons Contacted

- R. Baker, Technical Services Superintendent
- R. Burns, Vice President, Nuclear Support-BWR
- T. Butler, Outage Coordinator
- *V. Childs, Senior Licensing Engineer
- *R. Converse, Superintendent of Power
- M. Curling, Training Superintendent
- *W. Fernandez, Acting Operations Superintendent
- *H. Keith, Instrument and Control Superintendent
- *D. Lindsey, Assistant Operations Superintendent
- *R. Liseno, Acting Maintenance Superintendent
- *C. McNeill, Resident Manager
- *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 Action on Previous Inspection Findings

- a. (Open) Inspector Follow-up Item (333/82-25-01): The inspector reviewed the valve lineup checklist in Operating Procedure (OP) No. 13, "Residual Heat Removal System," Revision 24, and drawings FM-20C-16, FM-20D-15, and OP-13-2, Revision 5, and noted the following discrepancies between the Residual Heat Removal Service Water System as-built condition and the system drawings: valves RHR754B, RHR772B and pressure switch PS124B are not shown on drawing FM-20D-15; and drawing OP-13-2 does not show the pressure gages attached to valves RHR747A and RHR740A. This item remains open pending correction of these drawing discrepancies.
- b. (Closed) Violation (333/83-04-09): The inspector reviewed Safety Review Committee Procedure (SRCP) No. 18.1, "SRC Delegation of Audit Functions," Revision 3, dated August 1, 1983, and verified that the licensee has implemented a procedure which specifically identifies those audits necessary to accomplish the SRC audit requirements in the Technical Specifications. The inspector also reviewed the Quality Assurance (QA) Department audit schedule and completed audits nos. 937, 942 and 945 and verified that QA personnel are auditing Technical Specification Limiting Conditions of Operation in accordance with SRCP No. 18.1.

- c. (Closed) Inspector Follow-up Item (333/83-18-03): Based on observations made during system walkdowns; a review of the valve lineup checklists in Operating Procedures (OP) No. 13, "Residual Heat Removal System," Revision 24, and No. 25, "Control Rod Drive Hydraulic System," Revision 21; and a review of drawings nos. OP13-1, Revision 8; OP25-1, Revision 7; and OP25-3, Revision 1; the inspector verified that the discrepancies between the as-built condition, the drawings, and the valve lineup checklists identified in this follow-up item have been corrected.
- d. (Closed) Inspector Follow-up Item (333/83-28-04): The inspector reviewed Quality Assurance Instruction (QAI) 8.0, "Quality Assurance Audits of changes to the Operating License," and verified that a Quality Assurance Department procedure has been established. This procedure requires that Technical Specification amendments be reviewed and audited within thirty days of receipt there by ensuring that new license requirements are properly implemented. The inspector noted that Technical Specification Amendment No. 77 was reviewed by the Quality Assurance Superintendent in accordance with Quality Assurance Instruction 8.0.

3. Licensee Event Report (LER) Review

The inspector reviewed LER 84-10 to verify that the details of the event were clearly reported. The inspector also 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.

- a. LER 84-10 reported that the reactor tripped on low reactor vessel water level as a result of a loss of feedwater flow during a reactor startup. Details of this event are discussed in paragraph 8b. of inspection report 50-333/84-04.

4. 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

--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.

On May 22, 1984, the inspector discovered that, earlier in the day, a licensee employee escorted a site visitor, who did not have any of the licensee's dosimetry, into the radioactive waste packaging area. This area was posted as a high radiation and contaminated area. The inspector informed the licensee of this event and the licensee immediately initiated an Unusual Radiological Incident Report. The inspector reviewed the results of the licensee's investigation and noted that surveys taken of the area on May 23, 1984 indicated that the highest radiation and contamination levels were 40 mr/hr. and 1400 dpm/100cm² respectively. Additionally, no activities occurred in the area which would have significantly altered radiation or contamination levels in previous 24 hours. The two individuals indicated that they were in the radioactive waste packaging area for approximately ten minutes. The inspector also noted that the monitored employee's exposure based upon his reading of a direct reading dosimeter was zero millirem. The licensee attributed the cause of the incident to the employee's unfamiliarity

with the plant's visitor policy issued via memorandum JAFP 83-9750 to the department superintendents on July 15, 1983. The inspector informed the licensee that the radioactive waste packaging area is a transient high radiation area, was posted as such, and the potential existed for the individual to violate the licensee's radiation protection procedures. The licensee acknowledged the inspector's concerns and stated that the employee had already been retrained on the procedures for entering high radiation and contaminated areas. The inspector also expressed concern that the licensee continues to implement the visitor policy through a memorandum when apparently not all personnel are familiar with it. The memorandum indicated that this was to be only an interim document and that the visitor policy would be incorporated into plant procedures by January 1, 1984. The licensee agreed and stated that the visitor policy would be made part of a radiation protection procedures by June 30, 1984. The inspector will review the revised procedure during a subsequent inspection (333/84-08-01). Based on his review, the inspector determined that this incident appears to have been an isolated case and that no license violations occurred. The inspector had no further questions on this incident.

d. Tagout Verification

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

--PTR 840621 on the Diesel Fire Pump.

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 Gas Treatment System

--Low Pressure Coolant Injection System

--Core Spray System

No violations were identified.

5. 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-ISP-3, Reactor High/Low Water Level Instrument Functional Test/Calibration, Revision 10, dated August 3, 1983, performed May 2, 1984.

--F-ST-9B, EDG Full Load Test and ESW Pump Operability Test, Revision 18, dated May 2, 1984, performed May 8 and 9, 1984

--F-ST-24A, RCIC Pump and Valve Operability/Flow Rate Test, Revision 14, dated April 18, 1984, performed May 18, 1984.

--F-ST-22C, ADS Logic System Functional Test, Revision 9, dated February 15, 1984, performed May 21, 1984.

- b. The inspector also witnessed all aspects of the following surveillance tests 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-13, Main Stack Radiation Monitor Functional Test, Revision 13, dated September 21, 1983, performed May 11, 1984.

--F-ST-4B, HPCI Flow Rate/HPCI Pump Operability/HPCI Valve Operability tests, Revision 15, dated December 21, 1983, performed May 18, 1984.

- c. At 11:30 a.m. on May 18, 1984, the licensee declared the Reactor Core Isolation Cooling (RCIC) System inoperable and tagged shut the outboard steam isolation valve when, as the result of a visual inspection, the licensee discovered that a thermocouple in the RCIC steam leak detection system, 13-TE-100A, was disconnected. The licensee also noted that the bare ends of the disconnected thermocouple leads had been twisted together forming another thermocouple junction. This condition apparently allowed the circuit to indicate and calibrate properly and prevented detection of the problem during normal surveillance testing. The licensee inspected all other RCIC steam leak detection thermocouples and found them satisfactory. Each trip system of the RCIC steam leak detection system contains four thermocouples. Two of these are in the drywell entrance area and one each in the torus room and crescent area.

Thermocouple 13-TE-100A was one of the two thermocouples in the drywell entrance area. Technical Specification Table 3.2.2 item no. 29 allows continued operation with only one operable instrument channel per trip system.

An investigation conducted by the licensee to determine the cause of the disconnected thermocouple has been unsuccessful. This included a review of occurrence reports, work requests, and the jumper log. The licensee believes the condition existed for some time and will continue the investigation. The licensee reconnected and tested thermocouple 13-TE-100A and, following a flow rate test, RCIC was declared operable at 5:20 p.m. on May 18, 1984. The inspector observed portions of the RCIC surveillance testing, reviewed the work accomplished under work request no. 13/31093 to troubleshooting and repair of thermocouple 13-TE-100A, and had no further questions regarding the licensee's actions.

- d. AT 2:15 p.m. on May 18, 1984, the High Pressure Coolant Injection (HPCI) System was declared inoperable when circumferential cracks were found on the HPCI turbine stop valve stem during an operability surveillance test. Since the Reactor Core Isolation Cooling (RCIC) System was also inoperable as noted above, the licensee entered the 24 hour Limiting Condition for Operation (LCO) of Technical Specification 3.5.E.2. The 24 hour LCO ended when RCIC was returned to service at 5:20 p.m. on May 18, 1984.

The HPCI turbine stop valve is a 10 inch Schutte and Koerting inverted oil operated stop valve. In October 1983, the licensee found and reported in LER 83-49 that the HPCI turbine stop valve stem had fractured. Analysis of this failure by an outside contractor indicated that the cause was essentially excessive tensile stress. An investigation into the reason for the excessive stress was in progress when the stem cracks were again found on May 18, 1984. The licensee later found that the stop valve balance chamber pressure adjustment was low, causing the steam forces under the stop valve's main disc to catapult the valve full open on a turbine quick start. The abnormally high forces associated with this type of opening resulted in the damage to the stop valve stem. General Electric had issued Service Information Letter (SIL) No. 352, "HPCI Turbine Stop Valve Steam Balance Chamber Pressure Adjustment" on February 18, 1981, to warn of potential stop valve damage with improperly adjusted balance chamber pressures, however, the licensee had not yet acted on the SIL. The licensee replaced the HPCI turbine stop valve stem and then adjusted the steam balance chamber pressure in accordance with SIL 352 and returned HPCI to service at 4:40 a.m. on May 24, 1984.

6. 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 27/25373 on the repair of the Drywell Atmosphere Monitoring System sample line.

--WR 76/22815 on the overhaul of the Diesel Fire Pump engine.

--WR 23/29657 on the repair of the High Pressure Coolant Injection turbine stop valve.

No violations were identified.

7. Followup on Operational Assessment Team Inspection Findings

The inspector reviewed licensee action on various commitments made in response to the Operational Assessment Team Inspection (Inspection Report No. 50-333/82-24). Based on this review the inspector closed the following items:

- C.1.2. The inspector noted that the licensee has issued a departmental organizational and administrative manual for the maintenance department. The inspector reviewed this manual and noted that it contained management job descriptions and organizational responsibilities for the maintenance department as well as procedures for managing the General Maintenance Contractor.
- C.1.b. and C.1.d. Based on discussions with licensee personnel and personal observations, the inspector noted that all supervisory positions within the maintenance department were once filled. However, two Assistant Contract Services Engineers and the Preventive Maintenance Supervisor have since resigned. The licensee is currently pursuing replacements. The inspector considers these items closed as the licensee met the original commitment to fill these positions, and is pursuing replacements.
- C.1.c. The inspector noted that the licensee has approved and implemented procedure ITP 19, "Contractor Training," Revision 0, dated May 17, 1983, to provide instruction to contractor personnel on station practices and procedures.

The following item remains open for the reasons indicated:

- C.2. The inspector noted that the licensee has developed a computerized program for Preventive Maintenance (PM) scheduling and has developed procedure No. MD-50-07, "Maintenance Department Preventive Maintenance Program," for administering a PM program. However, when the inspector reviewed the computer program and PM procedure he noted that very little data has been entered into the program and that the procedure has not been fully implemented. Based on discussions with the personnel involved, the inspector noted that implementation of the computer program as a scheduling tool is pending data entry and there is confusion as to when the PM procedure will be implemented. With respect to generating PM Procedures for plant components, the inspector noted that the licensee has rewritten a limited number of procedures in the format of corrective-preventive maintenance procedures. However, it now appears the licensee will hire a contractor to rewrite all the maintenance procedures and this is not expected to be completed until the middle of 1985. This item remains open pending implementation of a PM program, including a workable scheduling system and appropriate PM procedures.

8. 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.

- Residual Heat Removal Service Water System the discrepancies noted during the system walkdown are discussed in paragraph 2.a. of this inspection report.

No violations were identified.

9. 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 periodic report was reviewed:

- April 1984 Operating Status Report, dated May 4, 1984.

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 May 24, 1984, 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.