U.S. NUCLEAR REGULATORY COMMISSION

Region 1

Report No.:	92-20
Docket No.:	50-333
License No.:	DPR-59
Licensee:	New York Power Authority P.O. Box 41 Lycoming, New York 13093
Facility:	James A. FitzPatrick Nuclear Power Plant
Location:	Scriba, New York
Dates:	October 11, 1992 through November 14, 1992
Inspectors:	W. Cook, Senior Resident Inspector R. Plasse, Jr., Resident Inspector

Approved by: Peter W. Eselgroth 12/9/92

Peter W. Eselgroth, Chief Date
Reactor Projects Section 1B, DRP

INSPECTION SUMMARY: Routine NRC resident inspection of plant operations, maintenance, engineering and technical support, and quality assurance/safety verification.

RESULTS: See Executive Summary

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NOTE: The NRC inspection manual procedure or temporary instruction that was used as inspection guidance is listed for each applicable report section.

Executive Summary

James A. FitzPatrick Nuclear Power Plant

NRC Region I Inspection Report No. 50-333/92-20

October 11, 1992 - November 14, 1992

Plant Operations

Overall performance by the operations staff was good. Licensed operator response to a short duration loss of shutdown cooling and reactor building ventilation isolation was appropriate.

Maintenance

A number of previously identified items were reviewed and closed during this inspection period. Preliminary review of the results of the relay room CO2 discharge test has prompted further NRC followup. An unresolved item (**92-20-01**) has been assigned to track the inspector's review efforts.

Safety Assessment/Quality Verification

Two unresolved items involving previously identified Quality Assurance program implementation weaknesses were closed.

DETAILS

1.0 SUMMARY OF FACILITY ACTIVITIES

1.1 NYPA Activities

During this inspection period, the unit remained in cold shutdown with the core loaded. NYPA continued to complete outstanding work tasks necessary to support plant restart.

1.2 NRC Activities

The inspection activities during this report period included inspection during normal, backshift and weekend hours by the resident staff. There were thirteen hours of backshift (evening shift) and three hours of deep backshift (weekend, holiday and midnight shift) inspections during this period. Approximately 240 hours of backshift and deep backshift inspections were conducted by the Readiness Assessment Team Inspection on site during this report period.

Region based inspectors continued to review NYPA's corrective actions and program improvement initiatives in the Fire Protection and Appendix R program areas, including the resolution of fire door surveillance deficiencies, which will be the subject of Inspection Report 92-14.

On October 20, a public exit meeting for the Readiness Assessment Team Inspection was conducted at the FitzPatrick Training Center. The results of this inspection and initial NYPA response to the restart concerns identified were documented in inspection report 50-333/92-82, dated November 12, 1992.

2.0 PLANT OPERATIONS (71707,71710,93702)

2.1 Routine Plant Operations Review

During the inspection period the inspectors observed control room activities including operator shift turnovers, shift crew briefings, panel manipulations and alarm response, and routine safety system and auxiliary system operations conducted in accordance with approved operating procedures and administrative guidelines. The inspectors made independent verification of safety system operability by review of operator logs, system markups, control panel walkdowns and component status verifications in the field. Discussions were held with operators and technicians in the field to assess their familiarity with current system status and personnel response to events during the inspection period. In addition, during plant tours, inspectors reviewed routine radiological control practices. The activities inspected were acceptable.

2.1.1 Operational Safety Verification

The inspector conducted partial control room and in-plant walkdowns of the following systems:

-- B and D emergency diesel generators

-- A and B standby liquid control

-- A and B emergency service water

-- Reactor protection system

The activities inspected in this area were found acceptable.

2.2 B Reactor Protection System (RPS) Loss of Power Event

On November 4, NYPA made a 10 CFR 50.72 notification of an engineered safety feature (ESF) actuation caused by a loss of power to the B RPS bus. The B RPS bus power was lost while starting the B condensate booster pump. At the time of the event, the B RPS was being powered by alternate power (115 kv offsite power) via the electrical protection assembly (EPA) unit. The starting of the large AC powered pump resulted in a momentary voltage drop in the supply voltage to the B RPS system. The EPA unit tripped on undervoltage resulting in deenergizing the B RPS system. This caused the residual heat removal (RHR) shutdown cooling system and the reactor building ventilation system to isolate, and the automatic initiation of the standby gas treatment system (SBGT).

The inspector reviewed the event and determined that all safety systems functioned properly in response to the event. The operators restored the safety systems to their appropriate configuration and reinitiated RHR shutdown cooling 13 minutes after the event. Reactor coolant temperature was 165°F prior to the event. After shutdown cooling was restored, reactor coolant temperature was determined to be 162°F. The inspector determined the operators properly responded to the event and the safety significance of this event was minor for the existing plant conditions (i.e., very low decay heat due to reactor refueled and shutdown for approximately one year). The inspector noted that with the plant operating or just after plant shutdown with a significantly higher decay heat generation rate, the consequences of using alternate power to feed the RPS buses and changing electrical loads may be more significant. At the end of the inspection period, the operating review group (ORG) was evaluating this event to determine the root cause. In addition, the inspector informed NYPA that a similar event occurred recently at Hope Creek. NYPA planned to consider the Hope Creek lessons learned in developing their root cause and event assessment. The inspector had no further questions and planned to followup this event after NYPA completed their ORG review.

2.3 Previously Identified Items

2.3.1 (Closed) Violation 91-08-01: Inadequate Review of Fire Protection and Prevention Procedures

NYPA agreed with the violation. This violation resulted from the failure to update the appropriate fire preplan procedure after completion of a plant modification, which added additional fire hazards. Specifically, NYPA installed the hydrogen addition system which resulted in hydrogen and oxygen lines being routed in the vicinity of the condensate booster pumps. The Fire Preplan Procedure, (FPP) 5.21, Turbine Building Elevation 252' (North), covers the location of the condensate booster pumps and the condensate pumps. The inspector reviewed revision 3 to FPP 5.21, dated August 30, 1991. In this revision, NYPA noted the hydrogen and oxygen lines in the hazards section of the preplan and the inspector determined that the information was adequate. In addition, at a May 28, 1992 meeting with the NRC to discuss several fire protection and Appendix R improvements, NYPA committed to complete a review of all their fire pre-plans prior to plant restart. This review was intended to provide additional guidance to fire brigades of the potential fire hazards and equipment loss in the various fire areas. This Violation is closed.

3.0 MAINTENANCE (IP 62703)

3.1 Observation of Maintenance Activities

The inspector observed and reviewed selected portions or preventive and corrective maintenance to verify compliance with codes, standards and Technical Specifications, proper use of administrative and maintenance procedures, proper QA/QC involvement, and appropriate equipment alignment and retest. The following activities were observed:

-- Portions of control rod drive exercising and stroke timing conducted per ST-20N, on October 19, 1992.

-- Carbon dioxide (CO2) discharge test in the relay room conducted in accordance with STP-76AE, on November 11, 1992.

This CO2 discharge test was aborted due to CO2 leakage into the control room. A critique of the test, identification of the in-leakage pathways, and analysis of information gathered was being developed at the conclusion of the inspection period. The inspectors plan to followup this event in the subsequent inspection period after NYPA's review and assessment is completed. The NRC review and assessment of NYPA's response to this event is unresolved. Unresolved item **92-20-01**.

3.2 Previously Identified Items

3.2.1 (Closed) Unresolved Item 90-04-04: Inadequate Controls for Gagging of Relief Valves

The inspector determined NYPA had inadequate relief valve gagging controls based on two separate events involving damage to relief valves or their improper restoration as a result of gagging. In the past, to support testing operators routinely gagged relief valves without procedural guidance (i.e., torquing and disassembly/reassembly requirements). NYPA short term corrective actions for all gagging evolutions dictated that the operations department would request the maintenance department to install the gagging device. This short term action appeared to be effective, in that, no additional problems have been identified due to improper gagging of relief valves.

Besides requiring that the maintenance department assume responsibility for relief valve gagging, NYPA plans to complete implementation of a formal preventive maintenance program for relief and safety valves. The Planned Maintenance Task Force (PMTF) completed an in-depth evaluation of the previous 15-year maintenance history of all plant safety and relief valves. The evaluation entitled, Preventive Maintenance Evaluation for Relief and Safety Valves, PME-117, was reviewed by the inspector. Based on this evaluation, NYPA has committed to complete additional maintenance program improvements including more detailed work instructions for relief valve maintenance which will include valve specific gagging instructions and permanent tool storage control of all gagging devices. In addition, the PMTF is presently evaluating PME-117 to determine appropriate preventive maintenance tasks to increase relief and safety valve component reliability. This unresolved item is closed.

3.2.2 (Closed) Unresolved Item (90-07-04): Discrepancy in QA classification of 10 MOV-57 and 10 MOV-67

This unresolved item identified an apparent discrepancy between the QA category and the primary containment isolation valve (PCIV) requirements for the A residual heat removal (RHR) to radwaste motor-operated valves (MOVs) 10 MOV-57 and 10 MOV-67. The inspector noted that the QA classification for the valves was ASME category II/III (non-safety related), however, each valve was listed in Technical Specification (TS) Table 3.7-1 for PCIVs and the valves receive PCIV isolation signals (typical of safety related applications).

The inspector reviewed administrative procedure (AP)-1.04, Technical Specification Lists and Tables, Revision 1, dated October 14, 1992. The purpose of AP-1.04 is to provide administrative controls for lists and tables removed from Technical Specifications. Attachment 1 of AP 1.04 contains the table listing all PCIVs (previously TS table 3.7-1). This table was deleted from Technical Specifications by amendment number 173. Presently, any proposed change to the existing PCIV table in AP 1.04 requires an independent technical

review by the technical services department and a 10 CFR 50.59 safety evaluation justifying the change. Revision 1 to AP 1.04 deleted 10 MOV-57 and 10 MOV-67 from the PCIV table. The inspector reviewed the technical basis for this change, documented in safety evaluation JAF-SE-92-033, dated February 21, 1992. NYPA determined 10 MOV-57 and 10 MOV-67 were correctly classified as QA category II/III and did not perform a containment isolation function. The design basis for 10 MOV-57 and 10 MOV-67 receiving isolation signals was to prevent the loss of water inventory from the residual heat removal (RHR) suction piping between the RHR pumps and the RHR shutdown cooling suction isolation valve, (10 MOV-18), after 10 MOV-18 closes on a shutdown cooling isolation. This unresolved item is closed.

3.2.3 (Closed) Unresolved Item (90-07-03): Inadequate Valve Motor Operator Design

This unresolved item identified an example where the valve stroke times for valves 10 MOV-57 and 10 MOV-67 were greater than the TS allowable stroke times. To resolve the issue NYPA modified the worm gear sets to reduce the stroke times. As discussed in section 4.2.2 above, 10 MOV-57 and 10 MOV-67 were not safety related valves and have been deleted from the PCIV table. The inspector reviewed NYPA corrective actions for this discrepancy, documented in memorandum JMD-91-028, dated January 28, 1991. The inspector determined NYPA took appropriate actions to ensure this problem did not exist for other TS PCIVs. This unresolved item is closed.

3.2.4 (Closed) DEO.MT.018

This Diagnostic Evaluation Observation (DEO) identified weaknesses in NYPA's control of temporary scaffolding in the reactor plant. The Restart Assessment Team Inspection (RATI) reviewed NYPA's scaffold control program procedure PSO-51, Erection of Scaffolds Near Safety Related Equipment, and toured the plant to ensure compliance with NYPA's controls as stated in the PSO. The RATI identified several program weaknesses. The RATI team identified one example where scaffolding was installed without tie-downs in close proximity to the A battery charger. A Notice of Violation was issued for this deficiency.

Based on the NRC identified weaknesses, NYPA conducted inspections of scaffolding in all plant areas. This resulted in the identification of additional discrepancies as documented in NYPA Adverse Quality Condition Reports (AQCRs). The inspector reviewed the responses to the AQCRs and determined the short term recommended corrective actions appeared appropriate to resolve the identified discrepancies. Inspector review of long-term corrective actions and procedure improvements will be conducted after NYPA completes their review and responds to the RATI violation (92-82-02). In addition, the inspectors plan to complete plant tours prior to reactor restart to independently verify that the remaining temporary scaffolding will not potentially impact safety related equipment during a seismic event. This DEO is closed. Additional inspection followup will be tracked by violation 92-82-02.

3.2.5 (Closed) DEO.ENG.040

This Diagnostic Evaluation Observation (DEO) identified the use of a temporary exhaust fan for ventilation of a security concentrator. The condition was discovered during a plant walkdown and appeared to be an example of an unauthorized temporary modification. In response to the Diagnostic Evaluation Team (DET) inquiry of the condition, the fan was removed and the registers of the cabinet were cleaned. NYPA review of the event determined the exhaust fan was an unauthorized temporary modification. Prior to plant startup, NYPA committed to have the technical services department conduct a review of the active work requests and to walkdown safety related systems to ensure no additional unauthorized temporary modifications exist. To ensure proper implementation of the temporary modification process in the future, NYPA has committed to provide additional training to all affected plant personnel prior to December 31, 1992. To address the specific example cited in the long-term, the I&C department is developing a preventive maintenance program for security equipment including the concentrators. In addition, the security staff plans to initiate work requests to the I&C department for future security equipment problems. This DEO.ENG.040 is closed. The inspector notes that the RATI conducted a detailed review of temporary modifications and their findings and assessment were documented in section 2.3.3 of inspection report 50-333/92-82. An unresolved item was identified to track resolution of identified weaknesses prior to unit restart.

4.0 SAFETY ASSESSMENT/QUALITY VERIFICATION (71707, 93702)

4.1 Previously Identified Items

4.1.1 (Closed) Unresolved Items 90-08-04 and 92-01-01: Various QA Program Weaknesses

These unresolved items identified several QA program weaknesses. Specifically, NYPA review and corrective actions for identified problems were not consistently timely and effective to prevent recurrence. To address these identified concerns, NYPA completed QA surveillance report (SR) 1583, dated September 23, 1992. The purpose of the surveillance report was to review closed QA reports over the last six years to determine if identified deficiencies were properly evaluated for appropriate corrective action. NYPA reviewed 2254 closed QA reports and determined that all but 50 reports were found to be appropriately resolved. The inspector reviewed SR 1583 and concluded the audit was of high quality and provided adequate justification and recommendations for resolution of the 50 identified deficient reports. The inspector concluded that the QA findings in SR 1583 were indicative of past performance weaknesses in the QA program. Recent NRC reviews of the effectiveness of the QA program have indicated generally acceptable results. The inspector reviewed all the Technical Specification (TS) QA audits completed between October 1991 and March 1992 and found them to meet the TS requirements as documented in Inspection Report 92-03. In addition, the recent Restart Assessment Team Inspection (RATI) reviewed the QA program and determined that the recent QA audits were detailed and the audit findings indicated a thorough evaluation. These unresolved items are closed.

5.0 MANAGEMENT MEETINGS

At periodic intervals during the course of this inspection, meetings were held with senior facility management to discuss inspection scope and findings. In addition, at the end of the period, the inspectors met with licensee representatives and summarized the scope and findings of the inspection as they are described in this report.