

DCS NUMBERS

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

Region I

Report No. 81-21

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: September 1-30, 1981

Inspectors: *H.B. Kister*
for J. C. Linville, Resident Inspector

10/14/81
date signed

H.B. Kister
for L. T. Doerflin, Resident Inspector

10/14/81
date signed

date signed

Approved by: *H.B. Kister*
H. B. Kister, Chief, Reactor Projects
Section 1C

10/14/81
date signed

Inspection Summary:

Inspection on September 1-30, 1981 (Report No. 50-333/81-21)

Areas Inspected: Routine and reactive inspection during day and backshift hours by two Resident Inspectors (122 hours) of licensee action on previous inspection findings; licensee event report review; operational safety verification; surveillance observations; review of plant operations; QA audit observations, and licensee event followup.

Results: Of seven areas inspected no items of noncompliance were observed in six areas. One item of noncompliance was noted in one area. (Failure to follow operating procedure, paragraph 4)

DETAILS

1. Persons Contacted

- *R. Baker, Superintendent of Power
- *P. Bayne, Senior Vice President, Nuclear Generation
- *G. T. Berry, President and Chief Operating Officer
- *J. W. Boston, Executive Vice President, Procedures and Performance
- N. Brosee, Maintenance Superintendent
- *R. A. Burns, Assistant to Superintendent of Power
- *V. Childs, Assistant to Resident Manager
- *R. Converse, Operations Superintendent
- M. Cosgrove, Site Quality Assurance Engineer
- W. Fernandez, Technical Services Superintendent
- H. Keith, Instrument and Control Superintendent
- *J. D. Leonard, Resident Manager
- E. Mulcahey, Radiological & Environmental Services Superintendent
- C. Orogvany, Reactor Analyst Supervisor
- D. E. Tall, Training Coordinator
- T. Teifke, Security & Safety Superintendent

The inspectors also interviewed other licensee personnel during this inspection including Shift Supervisors, Administrative, Operators, Health Physics, Security, Instrument and Control, Maintenance and Contractor Personnel.

*Denotes those present at an exit interview.

2. Licensee Action on Previous Inspection Findings

(Closed) INSPECTOR FOLLOWUP ITEM (333/81-12-06): The licensee was cited for failure to follow Radiation Work Permit requirements in inspection report 50-333/81-18. Additional followup will be done by the inspectors on that item of noncompliance.

(Closed) SEVERITY LEVEL IV VIOLATION (333/81-12-03): The licensee was cited again for failure to barricade the high radiation area made accessible by gate RW 272/12 in inspection report 50-333/81-18. Additional followup will be done on the new item of noncompliance.

(Closed) INSPECTOR FOLLOWUP ITEM (333/80-03-04): The licensee has built an additional concrete wall around the condensate storage tanks which has reduced dose rates in the parking lot and on the sidewalk approaching the administration building to acceptable levels.

(Closed) INFRACTION (333/80-03-02): The licensee issued Plant Standing Order No. 2, JAFNPP Alara and Respiratory Protection Policies, Revision 1, dated November 4, 1980 and signed by the Resident Manager during the Health Physics Appraisal Inspection.

(Closed) UNRESOLVED ITEM (333/80-01-02): The inspector has observed no instances of self monitor personnel in high radiation areas without dose rate instrumentation.

(Closed) UNRESOLVED ITEM (333/79-02-08): The inspector verified that all instrumentation which provides input to the process computer calculation of heatup and cooldown rates to meet the requirements of Technical Specification 3.6.A.1 is included in the licensee's calibration program with the exceptions of the thermocouples and the barometer used to convert reactor pressure gage to atmospheric for entry into the steam tables. The licensee immediately added the barometer to the balance of plant calibration program.

(Closed) SEVERITY LEVEL IV VIOLATION (333/81-12-05): This missed portion of a diesel generator surveillance test appears to have been an isolated case.

(Closed) SEVERITY LEVEL III VIOLATION (333/81-07-02): The inspector reviewed Quality Assurance (QA) Surveillance Reports 700, 703, and 704 which stated that licensee QA auditors reviewed all PORC reviewed Occurrence Reports and LER's from 1979, 1980, and 1981 for similar oversights regarding Technical Specification requirements. None were identified.

(Closed) SEVERITY LEVEL V VIOLATION (333/81-07-04): The inspector verified that the licensee revised paragraph 6.9 of QAP 10.1, "Inspection of Quality Related Activities," Revision 0, dated July 15, 1981, to require documentation of Quality Control Inspection Reports of deficiencies resolved by the work supervisor and the quality control supervisor. The inspector also reviewed the memorandum issued by the QA superintendent requiring documentation of all noncompliance in Deficiency and Corrective Action Reports regardless of verbal approvals by either himself or his supervisors.

(Open) UNRESOLVED ITEM (333/81-12-04): On September 4, 1981, the inspector witnessed the performance of ISP 12-1, RCIC Steam Line Low Pressure Instrument Functional Test/Calibration. The inspector noted that the licensee had implemented a temporary change in the procedure to ensure that at least one valve in the isolation logic is operable while testing. Although this is safer than the previous practice of making both isolation valves inoperable while testing, it still does not conform to the Technical Specification 3.7.D requirement that one valve in the line be in the isolated mode if either valve is inoperable. This item remains unresolved pending development of an NRC position on this issue.

3. Review Licensee Event Report (LER)

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.

The inspector reviewed LER's 81-62*, 81-63*, 81-64, 81-65*, 81-66*, 81-67, 81-68, and 81-69*.

*Report selected for onsite followup.

Inspection report 81-18 contains followup information on LER 81-66.

No items of noncompliance were identified.

4. Operation Safety Verification

a. Control Room Observations

(1) Using a plant specific checklist, the inspectors verified selected plant parameters and equipment availability to ensure compliance with limiting conditions for operation of the plant Technical Specifications. Items checked included:

- Power distribution limits
- Availability and proper valve lineup of safety systems
- Availability and proper alignment of onsite and offsite emergency power sources
- Reactor Control panel indications
- Primary Containment temperature and pressure
- Drywell to suppression chamber differential pressure
- Standby Liquid Control Tank level and concentration
- Stack monitor recorder traces

(2) The inspectors directly observed the following plant operations to ensure adherence to approved procedures:

- Routine power operations
 - Issuance of RWP's and Work Request/Event/Deficiency forms
- (3) 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.
- (4) Shift turnovers were observed to ensure proper control room and shift manning. Shift turnover checklists and log review by the oncoming and offgoing shifts were also observed by the inspectors.
- (5) No items of noncompliance were identified.
- b. Shift Logs and Operating Records
- (1) 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
 - Assess the effectiveness of the communications provided by the logs
- (2) The following logs and records were reviewed:
- Shift Supervisor Log
 - Nuclear Control Operator Log
 - Night Orders
 - Shift Turnover Check Sheet
 - Protective Tag Record Log
 - Jumper Log
 - Daily Core Surveillance Checks

- Liquid Radwaste Discharge Log
- Gaseous and Particulate Sample Logs
- Weekly Chemistry Status Log

(3) No items of noncompliance were identified.

c. Plant Tours

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

- Control Room
- Relay Room
- Reactor Building
- Turbine Building
- Diesel Generator Rooms
- Electric Bays
- Pumphouse-Screenwell
- Standby Gas Treatment Building
- Radwaste Building
- Crescent Rooms
- Cable Tunnels
- Torus Room
- Protected Area Perimeter

(2) 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 or air operated valves were not mechanically blocked. Other items verified during the plant tours included:

- General plant/equipment conditions

- Operability of selected personnel monitors, area radiation monitors and air monitors
 - Proper completion and use of selected radiation work permits
 - Proper use of protective clothing and respirators
 - Proper personnel monitoring practices
 - Proper control of ignition sources and flammable material
 - Equipment tag outs in conformance with controls for removal of equipment from service
 - Normal security practices
 - Plant housekeeping and cleanliness practices
- (3) During plant tours at 2:20 p.m., on September 18, 1981 and at 3:50 p.m., on September 29, 1981, the inspector found the fire door between the emergency diesel generator switchgear rooms, door DG 272/2 was open. Technical Specification 6.8 requires that procedures and administrative policies be implemented. Operating procedure F-OP-22, Diesel Generator Emergency Power, Revision 4, dated June 26, 1980, paragraph C.2 says to "ensure doors between DG rooms are closed when the DG's are required to be operable." Failure to maintain door DG 272/2 closed is an item of noncompliance. (333/81-21-01)

The inspector further noted that the licensee committed to check the closure of door DG 272/2 once per shift until the door position indication system is installed. The licensee had made this required check during the shift. However, the inspector questioned the adequacy of this once per shift check since he found the door open on two consecutive tours. The licensee acknowledged this concern at the exit interview and stated that more frequent checks would be made.

d. Physical Security

The inspectors made observations and verified during regular and off-shift hours that selected aspects of the plant's physical security systems and organization were in accordance with regulatory requirements, the physical security plan and approved procedures.

(1) Physical Security Organization

- Observations indicated that the security organization was properly manned.
- All security personnel observed appeared to be capable of performing their assigned tasks.

(2) Physical Barriers

- Physical barriers in the protected and vital areas were frequently observed to assure that they were intact and randomly checked by patrolling guards.
- Isolation zones were observed to be free of obstructions and objects that could aid an intruder in penetrating the protected area.
- The inspector observed that compensatory measures were employed when required by security equipment failure or impairment.

(3) Access Control

- The inspector frequently observed that explosive and metal detectors were operable and used as required.
- Often persons and packages were observed to be properly searched prior to entry into the protected area.
- Vehicles were observed to be properly searched and escorted or controlled within the protected area.
- Persons within the protected area displayed photo identification badges, persons in vital areas were properly authorized and persons requiring escorts were properly escorted.

(4) No items of noncompliance were identified.

e. Emergency System Operability

The inspector verified operability of the High Pressure Coolant Injection, Low Pressure Coolant Injection and Containment Spray Systems. The following were included in the system verification:

- Confirmation that each accessible valve in the primary flow path was in the correct position.

- Confirmation that power supplies and breakers are properly aligned for components that must activate upon an initiation signal.
- Visual inspection of the major components for leakage and other conditions which might prevent fulfillment of their functional requirements.

The inspector also verified the operability of the Emergency Service Water (ESW) System by performing a complete walk down of the accessible portions of the system. The following were included in the ESW system verification:

- Confirmation that the licensee's system lineup procedures match plant drawings and the as-built configuration.
- Verification that valves are in the proper position, have power available, and are locked (sealed) as required.
- Verification that system instrumentation is properly valved in.
- The radioactive waste system is operated in accordance with approved procedures.
- Verification that there are no obvious deficiencies which might degrade system performance such as inoperable hangers or supports.

No items of noncompliance were identified.

f. Radioactive Waste Systems Controls

The inspector witnessed selected portions of a liquid radioactive release to verify the following:

- The required release approvals are obtained.
- The required samples are taken and analyzed.
- The release control instrumentation was operable and in use during the release.

- The radioactive waste system is operated in accordance with approved procedures.

On September 18, 1981, the inspector observed the release of batch 3317 of Laundry Drain Tank A. The inspector found that a three order of magnitude error was made in transferring the sample activity from the computer printout to the discharge permit. This error was corrected prior to making the release. In addition, the inspector found that the procedure for the Laundry Drain Tank discharge was missing from the Radwaste Control Room copy of Operating Procedure F-OP-49, Liquid Radioactive Waste System, Revision 8, dated July 10, 1981. The licensee immediately took action to replace the page in the procedure.

5. Surveillance Observations

The inspectors 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-12-1, RCIC Steam Line Low Pressure Instrument Functional Test/Calibration, Revision 6, dated March 1981, performed September 4, 1981.
- F-ISP-3, Reactor High/Low Water Level Instrument Functional Test/Calibration, Revision 7, dated March 1981, performed September 9, 1981.
- F-ISP-24, Rod Block Monitor Instrument Calibrations, Revision 7, dated March 1981, performed September 29, 1981.

No items of noncompliance were identified.

6. Review of Plant Operations

a. Procurement and Storage

The inspector toured the licensee's warehouse areas to ensure that safety related components are traceable and that the area is maintained as required by approved procedures. The inspector reviewed the following procedures:

- WACP 10.1.4, Procurement of Materials and Services, Revision 2, dated August 28, 1979.
- WACP 10.1.5, Control and Identification of Purchased Material and Services, Revision 4, dated May 5, 1980.

The inspector selected the following items in the warehouse to verify traceability by reviewing the purchase order, receipt records, location of the item in storage, issue record and certification record.

- 20" Powell Swing Check Valve
- Emergency Diesel Generator Filter Elements

No items of noncompliance were identified.

b. Training

On September 11, 1981, the inspector attended a licensed operator replacement training lecture on the Reactor Protection System. The lecture was conducted as scheduled and the objectives of the lesson plan were met. The inspector noted that the instructor provided some information on the scram air header low pressure scram modification installed April 5, 1981. One of the sketches in the lesson plan had been revised to show the new pressure switches but there was no information on the modification in the text of the lesson plan. Technical Services department memorandum TS 81-132 dated April 7, 1981 made features of the modification available to all licensed operators including those in the Training department, but no one had incorporated this information into the system lesson plan. In addition, training department personnel said there is no means of assuring lesson plans are updated to reflect modifications. The licensee acknowledged the inspector's concerns at the exit interview.

c. Emergency Preparedness

On September 28, 1981, the inspectors observed the licensee's first major emergency drill since the implementation of the new Emergency Plan in April 1981. The drill scenario involved a contaminated injured man followed by an unisolable main steam line break. Although the licensee notified the required offsite agencies, these agencies did not participate in the drill as required by Technical Specification 4.13(B). In a letter to the Director of Nuclear Reactor Regulation (NRR) dated September 18, 1981, the licensee requested relief from this requirement until 1982. This item is unresolved pending NRR action on the licensee's request (333/81-21-02).

During the drill the inspectors observed the licensee performance at the scene of the injury, in the control room, and in the technical support center (TSC). The inspectors provided comments on their observations to the licensee at the drill critique. No items of noncompliance were observed.

At other times during the month the inspector reviewed the following emergency preparedness areas.

- Selected emergency facilities and equipment including the control room, the TSC, the Emergency Operations Facility (EOF), the First Aid Room, the Ambulance Kit, the Emergency Vehicle Kit, and all current emergency equipment inventories.

The inspector found that the TSC-EOF-Control Room dedicated telephone line was inoperable and that channel 2 of the TSC radio was inoperable. In addition, the licensee had difficulty communicating with the survey teams at all using the TSC radio during the drill. The required emergency procedures were also missing from the emergency vehicle kit. The inspector will review licensee corrective action for these discrepancies later. (333/81-21-03)

- Means for monitoring release of radioactivity.

Based on the most recent operability surveillance, if required, and direct observation, the inspector found the stack, ventilation, and liquid effluent monitors; selected survey team instrumentation; meteorological equipment; and the dose calculators operable.

- Onsite medical arrangements.

The inspector determined that there is an LPN on duty during day shift on weekdays and that there are personnel trained in first aid on shift at all times. In addition, the inspector found that there is an agreement between the Oswego Fire Department and the licensee for ambulance service. This capability will be tested during a drill on October 23, 1981.

d. PORC Meeting Observation

The inspector reviewed the minutes for PORC Meeting 81-054 held on June 2, 1981, which the inspector attended, and reported in inspection report 50-333/81-14. The inspector determined that the minutes accurately reflected the decisions and recommendations made by the PORC members in the meeting.

7. Audit Program

On September 9, 1981, the inspector observed portions of licensee Standard Audit SA 375 of AP2.1, Control of Operating Procedures, Revision 2, dated March 23, 1979. Later, the inspector reviewed the audit report to confirm the following:

- It clearly defined the scope of the audit and the results.
- It was conducted by trained personnel not having direct responsibility in the audited area.
- Its frequency was in conformance with Technical Specifications and the QA Program.
- Appropriate followup actions had been taken and were in progress or were being initiated.
- The audited organization's response to the audit findings was in writing, was timely, and adequately addresses the findings and recommendations.

The inspector found that the operations department had not responded to NCA 304 by the September 28, 1981 due date. The inspector will review this response later. (333/81-21-04)

8. Followup on Licensee Event

On September 22, 1981, the licensee inadvertently released about 4500 gallons of low level radioactive water through an unmonitored steam relief vent on the radwaste building. However, the release was not discovered until September 24, 1981, when two employees working in the vicinity of this vent were found to have contamination on their clothing and shoes. The release occurred over about an eleven hour period and was caused by an inadequate startup procedure for the radwaste concentrator system. The startup procedure failed to include any valve lineup for the condensate receiver, which collects the condensed auxiliary steam used to run the concentrator and pumps this condensate to the waste collecting tank. The B concentrator was started up at 2:30 a.m., September 22, 1981 with the two condensate receiver pump discharge valves shut. While the concentrator was operating, the condensate receiver tank filled up, backed up through the tank vent line connected to the steam relief vent and spilled on the ground outside the radwaste building. The improper valve lineup was discovered and corrected at about 1:30 p.m., September 22, 1981, terminating the release. Based on the volume of water released and the activity of water in the condensate receiver tank, $4.68E-6$ microcuries/ml, about 80 microcuries were released. Smear surveys on the roof and the side of the radwaste building indicated between 1600 and 2000 DPM/100 cm². Smear surveys on the ground and barrels

near the vent indicated between 3400 and 26,000 DPM/100 cm². A sample taken from the storm sewer closest to the radwaste building indicated a Cobalt 60 concentration of 1.28E-7 microcuries/ml.

On September 25, 1981, while cleanup from the first release was still in progress, a second release occurred through the same tank and steam relief vent path. This release was caused by a failure of the check valves on the discharge of the condensate receiver pumps. The release occurred while using a Residual Heat Removal (RHR) pump to transfer water from the torus to the Waste Collecting Tank, through an Equipment Drain Line to which the condensate receiver pumps also discharge. Leaking check valves on the discharge of the condensate receiver pumps permitted the RHR pump to pressurize the condensate receiver tank. This forced water up the tank vent and out on the ground beside the Radwaste Building. During this release, about 1000 microcuries were released based on an estimated volume of 200 gallons and a 1.38E-3 microcuries/ml activity of the water collected.

Directing the discharge of the condensate receiver pumps to the waste collecting tank via the Equipment Drain Line was a modification of the radwaste systems as described in the FSAR. The licensee was unable to provide the modification packages for review prior to the end of the inspection period. This item is unresolved pending review of the modification to reroute the condensate receiver pump discharge to the waste collecting tanks. (333/81-21-05)

To prevent additional release the licensee has replaced the condensate receiver pump check valves, has completed a modification which reroutes the condensate receiver tank vent to the Waste Collector Tank or the Waste Neutralizer Tank, and is changing the procedure for startup of the radwaste concentrator system to include a valve lineup on the condensate receiver. In addition, the Operations Superintendent is discussing these events with all operators. These discussions are emphasizing the need to follow procedures and to initiate changes to the procedures if they are incomplete or not correct.

9. Unresolved Items

Unresolved items are matters about which more information is required in order to determine whether they are acceptable items, items of noncompliance, or deviations. The unresolved items identified during this inspection are discussed in the paragraphs 6.c and 8.

10. Exit Interview

At periodic intervals during the course of this inspection, the inspectors met with senior facility management to discuss inspection scope and findings. On September 30, 1981, the inspectors met with licensee representatives (denoted in paragraph 1) and summarized the scope and

findings of the inspection as they are detailed in this report. During the meeting the inspectors discussed the unresolved items.