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

Region I

Report No. 50-333/78-24

Docket No. 50-333

License No. DPR-59 Priority -- Category C

Licensee: Power Authority of the State of New York

10 Columbus Circle

New York, New York 10019

Facility Name: James A. FitzPatrick Nuclear Power Plant

Inspection at: Scriba, New York

Inspection conducted: November 13-17, 1978

Inspectors: William J. Raymond for — 12/1/78
T. F. Stetka, Reactor Inspector — date signed

H. H. Nicholas for — 12/5/78
G. Kalman, Reactor Inspector — date signed

T. F. Stetka for — 12/5/78
J. E. Menning, Reactor Inspector (Region III) — date signed

Approved by: E. C. McCabe, Jr. — 12/6/78
E. C. McCabe, Jr., Chief, Reactor Projects — date signed
Section No. 2, RO&NS Branch

Inspection Summary:

Inspection on November 13-17, 1978 (Report No. 50-333/78-24)
Areas Inspected: Routine, unannounced inspection by regional based inspectors of plant operation including a plant tour, refueling preparation, refueling activities, refueling outage related maintenance, IE Bulletin and Circular followup, core spray sparger examination, PORC minutes, environmental qualifications of stem mounted limit switches and licensee action on previous inspection findings. The inspection commenced during non-regular hours and involved 105 hours onsite by three NRC regional based inspectors.
Results: Of the seven areas inspected, no items of noncompliance were found in six areas, one item of noncompliance was identified in one area (Infraction - failure to control access to a contaminated area, paragraph 4.b(4)).

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DETAILS

1. Persons Contacted

*Mr. E. Abbott, Operations Superintendent
Mr. R. Baker, Maintenance Superintendent
*Mr. R. Burns, Radiation and Environmental Services Superintendent
Mr. V. Childs, Assistant to Resident Manager
*Mr. R. Converse, Assistant to Operations Superintendent
*Mr. M. Cosgrove, QA Site Engineer
*Mr. W. Fernandez, Assistant to Maintenance Superintendent
*Mr. J. Ford, I and C Superintendent
Mr. J. Kerfien, QC Supervisor
*Mr. J. Leonard, Resident Manager
Mr. R. Liseno, Assistant Plant Engineer
Mr. E. Mulcahey, Radiation Protection and Radiation Chemistry Supervisor
Mr. G. Nott, Outage Coordinator
*Mr. R. Pasternak, Superintendent of Power
*Mr. D. Tall, Training Coordinator

The inspector also contacted and interviewed several other licensee employees and contract personnel.

*denotes those present at the exit interview.

2. Licensee Action on Previous Inspection Findings

(Open) Unresolved Item (333/78-19-06): The licensee let a contract to the Stone and Webster Engineering Corporation to inspect electrical equipment, including terminal blocks, within the drywell. This inspection, completed on November 3, 1978, found that all splices, electrical penetrations, and a representative sampling of the electrical equipment are qualified for their environment. The only exception to this finding were Buchannan terminal blocks located at the Soleniod Operated Valves (SOV's) for the Main Steam Isolation Valves (MSIV's) for which the licensee does not have documentation to verify their qualifications. The licensee will replace these terminal blocks with qualified terminal blocks during this refueling outage.

(Closed) Noncompliance (333/78-12-03): The licensee has written, approved and issued procedure F-ST-40G, Locked Valve Surveillance Test, Rev. 0 and Procedure No. 5, Valve/Electrical Lineup Check-off Lists Review, Rev. 0 to assure that locked valve positions are complete and accurate and that these positions are periodically verified.

(Closed) Unresolved Item (333/77-32-02): In lieu of revising all of the systems check-off lists, the licensee has written, approved and issued Operations Department Standing Order Procedure No. 5, Valve/Electrical Lineup Checkoff Lists Review, Revision 0. This review adds a cover sheet to an existing checkoff sheet to provide a "Remarks" section to explain valves out of position and sign-off blanks for the Nuclear Operation, Shift Supervisor and Operations Superintendent to verify review of the checkoff list.

(Closed) Unresolved Item (333/78-13-10): The licensee does not consider non-category 1 fire protection systems to be under the purview of 10 CFR Part 21. (This matter is currently the subject of an on-going NRC review). Fire protection equipment will be purchased by the licensee to meet the requirements of the National Fire Protection Association (NFPA). The inspector had no further questions relative to this topic at this time.

(Closed) Unresolved Item (333/78-13-03): The review of the Work Activity Control Procedures is completed and resulted in the issuance of Plant Standing Order No. 15, Technical Specification Amendment Implementation, Revision 0. This procedure provides controls to ensure proper admendment implementation.

(Open) Noncompliance (333/78-13-01): The licensee has written and issued procedure F-ISP-27, Drywell and Suppression Pool Temperature Instrument Calibrations, Revision 0 and calibrated the affected instruments by November 9, 1978. The inspectors review of this procedure and the completed data identified that tolerances were not specified for instrument indicator calibration points and the trip setpoints. The licensee representative stated that these tolerances would be added to the procedure. This item remains open pending revision of F-ISP-27.

(Closed) Unresolved Item (333/78-13-08): The licensee has marked and labeled an instrument rack to segregate the out-of-calibration test instruments from the calibrated test instruments.

(Closed) Unresolved Item (333/78-08-03): The licensee has completed the modification of disconnecting and blanking the connection between the Potable Water System and Demineralized Water System. The inspector verified completion of this modification by documentation review and observation of the blanked water line.

(Closed) Unresolved Item (333/78-08-04): The licensee has developed and issued procedure F-ST-9E, Procedure for Testing LOCA Bypass of Diesel Trips, Revision C, that tests the bypass of low lube oil pressure and high cooling jacket temperature shutdown signals during LOCA conditions. This procedure will be performed in conjunction with the annual diesel generator fast start testing.

(Open) Followup Item (333/77-16-06): The licensee has developed, issued, and performed procedures F-IMP-7.21, Transversing In-Core Probe (TIP) Shear Valve Explosive Actuating Cartridge Replacement, Revision 0 and F-IMP-7.20, Transversing In-Core Probe (TIP) Shear Valve Control Circuit Testing, Revision 0 to test the TIP shear valve cartridges and circuitry. The licensee has not yet determined a testing interval, however, the licensee representative stated that such an interval would be developed dependent upon the shelf life of the explosive charges. This item will continue to be reviewed during subsequent inspections.

3. Review of Plant Operations

The inspector reviewed selected facility operation logs and toured areas of the facility to determine that operations are in accordance with the Technical Specifications (TS).

The facility is presently engaged in a refueling outage and the review of plant operations included refueling operations in progress and determination that necessary systems for this mode of operation were functional.

a. The following facility logs were reviewed:

-- Refueling Floor Log;

-- Station Shift Supervisors Log;

-- Control Room Log;

-- Protective Tagging Log;

-- Jumper/Block Log; and,

-- Night Orders.

This review combined with panel observations in the control room and observation of various parameters throughtout the facility during the plant tour verified that plant conditions conformed to TS requirements for the refueling mode of operation.

b. A facility tour was begun on a back shift at 11:30 p.m. on November 13 and ended at 3:00 a.m. on November 14. Other facility tours were conducted during the day shifts. The tours included the following areas:

-- All levels of the reactor building;

-- Turbine building;

-- Control Room;

-- Diesel generator rooms;

-- Relay room;

-- Cable Spreading Room;

-- Interior of the Torus;

-- Drywell;

-- East and West Crescent Rooms;

-- Radwaste Building; and,

-- Pump House Screenwell.

Due to the facility's refueling outage status, particular emphasis was placed on radiation area controls and plant housekeeping conditions. The tours identified the following:

(1) Plant housekeeping was observed to evaluate the licensee's effectiveness in this area with respect to prevention of safety and fire hazards. The inspector's noted that the Crescent Rooms and the Refueling Floor were areas that require substantial cleanup. These areas were discussed with licensee personnel and the inspector's specific concern were identified. The licensee representatives acknowledged the inspector's concerns and stated the general cleanups would be conducted prior to plant start-up after the refueling outage. These areas will be reviewed during subsequent inspection plant tours.

(2) Shift staffing was observed to verify that the required number of licensed and unlicensed personnel were available on site consistent with the plant operating mode. No discrepancies were identified.

(3) The inspectors' examined the Relay Room and Cable Spreading Room with particular emphasis on evidence of smoking in these designated "No Smoking" areas (see Inspection Report 78-19). No smoking or other inadequacies were identified in these areas.

(4) Radiation areas were observed to verify that radiation control zones were properly established and identified.

At approximately 1300 hours on November 16 while touring the 300 foot elevation of the Turbine Building, the inspectors entered the main turbine area through the north shield wall door and proceeded the full length of this area and exited through the south shield wall door. At this point the inspectors noted that they had entered a controlled, contaminated area. The inspectors proceeded back to the north shield wall and, after exiting through the west side north shield wall door, observed that both the east and west side north shield wall doors were blocked open and that there were no controls (i.e., posting, barriers, and step-off pads) for entry into the area.

Monitoring of the inspectors showed they had not been contaminated during their entry into this area.

The inspectors notified health physics personnel, and these personnel took immediate action to properly barricade and post the north shield wall doors. The inspector also reviewed Survey Log Sheets for the area and noted that contamination levels of up to 186(dpm/100 cm^2 were in the area bounded by the north and south shield walls.

Failure to control entry into contaminated areas is contrary to the requirements of Technical Specification 6.11 which requires adherence to procedures for contamination control and to the requirements of the licensee's "Radiation Protection Operating Procedures". This is an item of noncompliance (333/78-24-01).

c. As a result of a crack identified in the core spray sparger at the Oyster Creek Facility (DN 50-219), the licensee conducted an examination of their core spray sparger during this refueling outage. This examination/inspection was conducted during the licensee's planned inspection of the core spray sparger nozzle tack welds.

The inspector reviewed the licensee's inspection report for these examinations and discussed the results with licensee personnel. The examinations indicated that there were no cracks in the sparger or any degradation of the nozzle tack welds.

The inspector had no further questions on this item.

4. Review of Plant Operating Review Committee (PORC) Minutes

During the inspector's followup on previous inspection items (paragraph 2) it was noted that the licensee was not documenting PORC review of Technical Specification violations relating to NRC inspection identified items of noncompliance.

Discussions with licensee representatives indicate that these reviews are being conducted and the inspector's review of the licensee responses to items of noncompliance indicate review by licensee personnel.

The inspector stated that these reviews should be documented in PORC minutes. The licensee acknowledged the inspector's comments and stated that future reviews would be documented in PORC minutes. This item is unresolved (333/78-24-02).

5. Refueling Preparation

a. Scope

The receipt records and inspection reports for the 136 new fuel assemblies and fuel channels were reviewed. The fuel handling and core verification procedures were reviewed and it was ascertained that refueling related Technical Specification requirements were included in the refueling procedures. The Reactor Building Crane inspection procedure and report were reviewed. The fuel handling equipment interlock test procedures were checked against Technical Specification requirements and it was verified that all required interlocks were tested prior to handling fuel.

b. Documents Reviewed

-- Procedure 7.1.1, Rev. 0, June 30, 1978, Receiving and Handling of Unirradiated Fuel;

-- Procedure 7.1.2, Rev. 0, August 3, 1978, Inspection and Channeling Unirradiated Fuel;

-- Procedure 7.1.3, Rev. 4, October 12, 1978, Refueling Procedure;

-- Procedure 7.2.4, Rev. 0, September 2, 1977, Reactor Core Fuel Verification;

-- F-ISP-88, Rev. 1, November 3, 1978, Refueling Bridge Main Hoist Load Cell Setting Procedure;

-- F-ST-390, October 7, 1975, Reactor Building Leak Rate Test; and,

-- F-ST-5-0, Rev. 3, November 15, 1971, SRM Functional Test.

c. Findings

The review of the new fuel assembly and fuel channel inspection reports revealed that inspection records for 4 fuel channels were missing. The inspector identified the 4 fuel channels in question by review of serial numbers.

Subsequent interviews with cognizant licensee personnel and review of supporting records satisfied the inspector that all fuel channels had been inspected despite the documentation inconsistency. The fuel channel documentation package was corrected accordingly. The inspector had no further questions concerning this matter.

6. Refueling Activities

a. Scope

The inspector verified that refueling prerequisite plant conditions, tests, and inspections were satisfied during the course of the refueling operations. Refueling activities were witnessed and compliance to Technical Specifications and applicable procedures was ascertained. As part of the above inspection, fuel status boards were checked for accuracy and manning in the control room and on the refueling floor was compared to procedural requirements. Housekeeping and health physics practices on the refueling bridge and the refueling floor in general were inspected. (See paragraph 4.b(1) for housekeeping comments)

b. Findings

The inspector found that refueling operations were being conducted in accordance with governing procedures and Technical Specifications. It was noted that the facility Technical Specifications do not require a Senior Reactor Operator (SRO) with no concurrent duties to supervise core alterations, and, during the actual refueling, SRO's were not routinely assigned to supervise core alterations. The requirement for full time SRO supervision of core alterations has become an integral part of the Standard Technical Specifications. This issue was addressed during interviews with cognizant licensee personnel.

During core alterations at the FitzPatrick facility, the manning on the refueling floor consisted of a licensed operator, an auxiliary operator, and a member of the reactor analyst group. The refueling floor personnel were supported on a full time basis by a licensed operator and a reactor analyst representative in the control room. An SRO was on site with general refueling responsibilities and other concurrent duties.

This item will be reviewed further by NRC management.

7. Outage Maintenance

a. Scope

The procedures for maintenance activities scheduled during the refueling outage were reviewed on a sampling basis to verify that the procedure format complied with the facility administrative requirements and that safety precautions, quality assurance, and testing requirements were included. Where applicable, the maintenance related safety evaluation was reviewed to determine whether an unresolved safety question was involved. Maintenance activities were observed and contract maintenance workers were interviewed.

b. Documents Reviewed

-- Procedure T-11, Rev. 0, November 1978, Replacement of Valve 02-RWR-40B;

-- Procedure T-12, Rev. 0, November 1978, Replacing CR-105 Auxiliary Contact Components;

-- Modification to Drywell Equipment Drain Sump Cooler document package including associated safety evaluation.

c. Findings

No inadequacies were identified.

8. Post Outage Start-up

a. Scope

Schedules and procedures were reviewed to verify that systems disturbed during the refueling outage would be started and tested in accordance with Technical Specification requirements.

b. Documents Reviewed

-- Procedure F-OP-65, Rev. 3, November 16, 1977, Startup and Shutdown Procedure;

-- Procedure F-OP-67, Rev. 3, April 21, 1976, Reactor Pressure Vessel Hydrostatic Test.

c. Findings

No inadequacies were identified.

9. Review of IE Bulletins and Circulars

a. Site documents related to IE Bulletins were reviewed to verify the licensee's responses were timely, accurate and adequate. The following Bulletins were reviewed:

(1) IEB 78-02, Terminal Block Qualification

The licensee's response to this Bulletin stated that environmental qualifications for their terminal blocks were available. The licensee was unable to provide this documentation to the inspector during this inspection. This item will be reviewed during a subsequent inspection and is considered to be unresolved (333/78-24-03).

(2) IEB 78-05, Malfunctioning of Circuit Breaker Auxiliary Contact Mechanism - General Electric Model CR 105X

The licensee identified approximately 180 circuit breakers that require the plunger arm replacement modification identified in Bulletin 78-05, has developed a program for replacement and has written Work Request (WIR) 71-8954 to perform the work. The inspector observed the work being performed and was apprised that about half of the breakers had been modified.

During this review and observations the inspector queired the licensee concerning loose plunger arm screws (Reference: IE Report 78-19, paragraph 8). The licensee representative stated that no loose screws had been found during the modification work and that a locking compound would be added to the plunger arm screws to assure loosening does not occur. This area will be reexamined upon completion of licensee actions.

b. IE Circular 78-06, Potential Common Mode Flooding of FCCS Equipment Rooms at BWR Facilities, was reviewed on site to determine if the licensee had received the circular and had taken appropriate action. No inadequacies were identified.

10. Environmental Qualification of Stem Mounted Limit Switches (SMLS) Inside Containment

The licensee was apprised of a recent NRR position concerning SMLS's that are used for valve position indication. Specifically, NRR has stated that SMLS's shall be environmentally qualified to operate under LOCA conditions.

The licensee, in response to IB Bulletin 78-04, Environmental Qualification of Certain Stem Mounted Limit Switches Inside Reactor Containment, stated that they did not utilize SMLS's for safety functions but did utilize these switches for certain valve position indications.

The licensee will review his use of SMLS's for position indication and determine the environmental qualifications of the installed switches. This item will be reviewed during subsequent inspections.

11. Unresolved Items

Unresolved items are those items for which further information is required to determine whether they are acceptable or items of non-compliance. Unresolved items are contained in Paragraphs 4 and 9.a(1) of this report.

12. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on November 17, 1978. The inspector summarized the scope and findings of the inspection as they are detailed in this report. During this meeting, the unresolved items and item of noncompliance were identified.