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

Region I

Report No. 50-333/81-15

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: Lycoming, New York

Inspection conducted: July 6-9, 1981

Inspectors: S. J. Ebneter for Peter S. Koltay, Reactor Inspector — 8/24/81 date signed

_____ — _____ date signed

_____ — _____ date signed

Approved by: Stewart D. Ebneter — 8/24/81 date signed
Stewart D. Ebneter, Chief
Plant Systems Section

Inspection Summary:

Inspection on July 6-9, 1981 (Report No. 50-333/81-15)
Areas Inspected: Routine unannounced inspection of the plant Fire Protection/ Prevention Program including: administrative controls, fire brigade training, quality assurance, modification to fire protection systems, fire protection equipment surveillance, and critical fire areas. The inspection involved 32 hours on site by one NRC regionally based inspector.
Results: No items of noncompliance were identified.

Region I Form 12
(Rev. April 77)

DETAILS

1. Persons Contacted

R. Baker - Superintendent of Power
R. Burns - Assistant Superintendent of Power
J. Carroll - Quality Assurance
V. Childs - Assistant to the Resident Manager
R. Converse - Operations Superintendent
W. Fernandez - Technical Services Superintendent
A. Heath - Fire Protection Supervisor
D. Holliday - Plant Engineer
J. Kerfien - Quality Assurance
D. Tall - Training Coordinator
T. Teifke - Security/Safety Superintendent

USNRC

J. Linville - Resident Inspector

All of the above personnel attended the exit interview.

2. Fire Protection/Prevention Program

a. Administrative Controls

The inspector reviewed the following administrative procedures:

- WSP-04 Welding Support Procedure, August 1, 1979
- WACP-10.1.10 Control of Combustibles and Flammable Materials, March 16, 1981
- WACP-10.1.7 Housekeeping and Cleanliness Procedure, May 5, 1980

The inspector verified that the administrative procedures include:

(1) Control of Combustibles

Prohibition on the storage of combustible, flammable or explosive hazardous material in safety-related areas.

Requirement for the removal of all wastes, debris, rags, oil spills or other combustible materials resulting from the work activity following completion of the activity or at the end of each work shift, whichever is sooner.

Requirement that all wood used in safety-related areas is treated with flame retardant.

Requirement for periodic inspection for accumulation of combustibles.

Special authorization for the use of combustible, flammable or explosive hazardous material in safety-related areas.

(2) Control of Ignition Sources

Welding and cutting operations and other open flame ignition sources are controlled by work permit and are properly safeguarded in areas containing safety-related equipment and components.

Smoking in safety-related areas is prohibited except where "smoking permitted" areas have been specifically designated by plant management.

Housekeeping is properly maintained in areas containing safety-related equipment and components.

Transient combustibles are restricted and controlled in safety related areas.

No items of noncompliance were identified

b. Fire Brigade Training

The inspector reviewed Introduction and Training Procedure No. 13, Fire Protection Training, Rev. 2, February 18, 1981.

The inspector verified that the procedure includes:

(1) Fire brigade training and retraining requirements which include classroom instructions and hands on equipment training.

(2) Fire brigade drills.

The inspector reviewed critiques of fire brigade drills conducted during 1981.

No items of noncompliance were identified.

c. Quality Assurance

The inspector reviewed the following QA documents:

- Quality Assurance Program Scope QAP 2.1, Rev. 5, March 28, 1980.

- Attachment 2.1-1 to QAP 2.1. List of Safety Related Structures and Components, which includes the electric motor and diesel engine driven fire pumps.

- Attachment 2.1-2 to QAP 2.1, List of Non-Safety Related Structure Systems and Components, including fire protection, which are incorporated into the plant quality assurance program.

- QA Procedure, QAP 4.1, Procurement Document Review, Rev. 2, December 1978.

The inspector reviewed the following QA audits of the plant fire protection program:

- PASNY Standard Audit No. 318, Fire Protection Program, Nov. 1979

- PASNY Standard Audit No. 362, July 7, 1981

- PASNY Standard Audit No. 346

Licensee's QA Audit No. 362 identified that fire pump performance tests, surveillance procedures F-ST-76J23 and 76J24, were not conducted within the frequency limit identified in Technical Specification section 4.12.Ae2. The licensee took immediate corrective action on May 4, 1981 and issued occurrence report No. 81-118. The licensee stated that an event report detailing corrective steps taken to prevent recurrence is being prepared. This item is considered unresolved pending NRC review of the licensee's corrective action (333/81-15-01)

Licensee's QA Audit No. 346 noted that the licensee may not be satisfying technical specification surveillance 4.12.Ae2, sequential automatic fire pump actuation throughout its operating sequence by simulated low header pressure, verifying that the electric pump starts at 95 psi and the diesel pump starts at 75 psi. Instead the licensee performs a monthly operational check, (T.S. 4.12.A1) per procedures No. F-ST-76B and 76C, during which each pump is tested separately through simulated low header pressure. During the exit interview the licensee agreed to perform the sequential fire pump test. This item remains unresolved pending NRC review of the licensee's record of the test performed. (333/81-15-02)

3. Fire Protection Modifications Required by Amendment 47 to DPR-59

a. Codes and Standards

The inspector conducted a sample review of fire suppression and detection systems' specifications, drawings and inspected randomly selected installed fire protection equipment. The inspector verified that the design and installation of equipment is in accordance with the applicable codes and standards of the National Fire Protection Association (NFPA). The inspected fire protection equipment is Underwriters Laboratories approved and/or Factory Mutual listed.

b. Status of Fire Protection Modifications

By review and examination of records including specifications and drawings and by examination of installed fire protection equipment, the inspector verified the licensee's implementation of scheduled modifications identified in the Safety Evaluation Report. The licensee was granted schedular relief on several modifications identified in Table 3.1 of the SER. These modifications are identified below.

(1) Completed Modifications

- Item 3.1.1 Interior Hose Stations, Modification No. F1-79-08.
- Item 3.1.4 Self-Contained Breathing Apparatus. Air compressor for recharging breathing tanks is located in the screenwell house.
- Item 3.1.7, Fire Doors, Modification No. F1-79-10.
- Item 3.1.8, Ventilation System, Safety Related Pump Rooms SP-1 and SP-2, Modification No. F1-79-11.
- Item 3.1.10 Exterior Hydrant Hose Houses.
- Item 3.1.14 Control of Combustibles, Modification No. F1-79-12.
- Item 3.1.17 Total Flooding CO_2 Suppression Systems - Ventilation Systems Interlock. Modification No. F179-13A.
- Item 3.1.19, Exposed Structural Steel, Modification No. F1-79-27. Specification No. 1296631-5-6, Fireproof Coating. Pyrocrete 241 was installed to provide up to 3 hour fire resistance rating to exposed structural steel members in the following areas; electrical bays, diesel generator rooms, RCIC enclosure, foam room and MOV 175B enclosure.

- Item 3.1.21 Ventilation Duct Penetrations. Modification No. F1-79-14 and F1-79-11.

- Item 3.2.1 Fire Hazards Analysis. The licensee submitted to the NRC a document titled Safe Shutdown Analysis, September 1979. Based on the analysis the following modifications have been completed.

  Modification 80-25A Concrete hatch cover at 300 ft. elevation of the reactor building.

  Modification 80-25B Enclosed circular staircase at elevation 272 feet of the reactor building

  Modification 80-25C Concrete block/fire door partition erected between MCC 161 and MCC 132 at elevation 272 of the reactor building.

  Modification 80-25D Sprinkler protection provided for cable trays along the south wall of the reactor building at elevation 272 ft.

  Modification 80-25E Enclosure provided around MOV 175 in the reactor building.

- Item 3.2.3 Fire Water Piping System. Modification F1-79-26.

- Item 3.2.4 Diesel Fire Pump Room Sprinkler Head Spacing. Modification F1-79-22.

- Item 3.2.2. Pipe Penetrations.

- Item 3.2.7 Fire Pump Performance. The inspector verified that the electric motor driven fire pump was tested on May 4, 1981. The inspector witnessed the diesel engine driven fire pump test on July 7, 1981. The inspector verified that both pumps met manufacturer's performance ratings. The inspector noted that the diesel engine, subsequent to the test, lost engine coolant, and thus became inoperable. The licensee stated that the loss of engine coolant is a recurring problem which results in the loss of service of the fire pump for a period of several hours after each weekly pump test. The licensee agreed to conduct an inspection of the diesel engine to determine the cause of the coolant loss and take appropriate corrective measures.

  This item is considered unresolved pending NRC review of the licensee's corrective action (333/81-15-03).

(2) Incomplete Modifications

The licensee has received schedular relief on the following items by NRC letter dated April 8, 1981, due to a delay in the delivery installation and testing of the control room, central fire alarm annunciator panel:

- Item 3.1.18 Fire Detection and Signaling System. The inspector verified that the licensee installed fire detection devices in all of the areas identified in the SER.

- Item 3.2.5 Fire Door Supervision

- Item 3.2.6 Signaling Circuit Supervision.

The inspector verified that the licensee conducts hourly recorded inspections of the affected fire doors and the local fire alarm panels.

- Item 3.2.10 Crescent Area Fire Protection. Modification No. F1-79-25.

- Item 3.1.20 Electrical Cable Penetrations. Modification No. F1-80-07. Approximately 400 penetrations remain to be sealed.

- Item 3.1.6 Emergency Lighting. The licensee is in the process of evaluating exiting installations against 10 CFR 50 App. R requirements.

4. Review of Surveillance Test Procedures

The inspector reviewed the following surveillance test procedures to verify that the required Fire Protection Program surveillances had been performed and acceptance criteria had been met.

- Diesel Fire Pump Operational Check F-ST-76C;

- Electric Fire Pump Operational Check, F-ST-76B;

- Diesel Fire Pump Performance Test, F-ST-76J23;

- Electric Fire Pump Performance Test, F-ST-76J24;

- High Pressure Water Fire Protection System Flush, F-ST-76G.

The inspector noted that the licensee does not have a procedure for hydrostatically testing fire hoses stored in outside hose houses. The licensee agreed to develop a procedure and perform annual hydrostatic tests in

accordance with section E of 10 CFR 50 App. R. This item is considered unresolved pending NRC review of the licensee's corrective action. (333/81-15-04).

5. Facility Tour

The inspector examined fire protection water systems, including fire water piping and distribution systems, yard fire protection equipment and fire pumps. The inspector noted that a non-indicating type valve has been installed on the pressure sensing line of the electric motor driven fire pump. Inadvertent closure of this valve will prevent the pump from starting upon low system pressure. It was brought to the licensee's attention that the installation of a valve on the sensing line is not in accordance with the National Fire Protection Association code 20, Centrifugal Fire Pumps, guidelines. The licensee agreed to review the installation and take appropriate corrective action. This item is considered unresolved pending NRC review of the licensee's corrective action (333/81-15-05).

6. Critical Fire Areas

The inspector examined the following critical fire areas in accordance with TI 2515/19 dated April 1, 1979: crescent area, relay room, cable spreading room.

No item of noncompliance was identified.

7. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable, items of noncompliance or deviations. Unresolved items are discussed in paragraphs 2c, 3b(1), 4, and 5.

8. Exit Interviews

The inspector met with the licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on July 9, 1981, and summarized the purpose and scope of the inspection findings.