U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-333/88-02

Docket No. 50-333

License No. DPR-59 Category C

Licensee: Power Authority of the State of New York
P. O. Box 41
Lycoming, New York 13093

Facility Name: Fitzpatrick Nuclear Power Station

Inspection At: Scriba, New York

Inspection Conducted: January 25 - 28, 1987

Inspector: B Paolino for 3-10-88
A. Krasopoulos, Reactor Engineer date

Approved by: B Paolino for 3-10-88
C. Anderson, Chief Plant Systems Section date

Inspection Summary: Inspection on January 25 - 28, 1988 (Report No. 50-333/88-02)

Areas Inspected: Routine unannounced inspection of the Fire Protection/Prevention Program including: program administration and organization; administrative control of combustibles; administrative control of ignition sources; other administrative controls; equipment maintenance, inspection and tests; fire brigade training, periodic inspections and quality assurance audits; and facility tours.

Results: Of the areas inspected, no violations were identified.

DETAILS

1.0 Persons Contacted

1.1 NY Power Authority (NYPA)

*R. Converse, Resident Manager
*H. Keith, I and C Superintendent
*D. Lindsey, Operations Superintendent
*V. Walz, Technical Services Superintendent
*W. Fernandez, Superintendent of Power
*A. Tasick, QA Supervisor
*A. Tiner, Training
*R. Heath, Fire Protection Supervisor
R. Patch, QA Superintendent
D. Holliday, QA Engineer
R. Baker, Maintenance Superintendent
T. Teifke, Security Safety and Fire Protection Superintendent
T. Brais, Plant Engineer
D. Ruddy, Senior Plant Engineer

1.2 Nuclear Regulatory Commission (NRC)

*A. Luptak, Senior Resident Inspector

*Denotes those present at the exit interview.

2.0 Followup of Previous Inspection Findings

(Closed) 85-20-01 (Violation) Inadequate Separation of Safe Shutdown Systems

The concern identified by the NRC was the lack of adequate fire seals in wall penetrations in the Control Room, Cable Spreading Room and Relay Room, and the lack of adequate separation of cables affecting safe shutdown equipment. These cables were located in the East and West Cable tunnels and their loss could affect the ventilation required for the proper operation of the Emergency Diesels.

The permanent corrective measures taken by the licensee included the replacement of the inadequate seals with seals that have a three hour fire rating and protection of the conduits involved with a fire wrap to provide the required separation. The licensee also removed a conduit from the affected fire area. The inspector reviewed the modifications made by the licensee and did not identify any unacceptable conditions. This item is closed.

(Closed) 85-20-02 (Unresolved Item) Fire Protection Systems not per NFPA Guidelines

The NRC determined that the fire detectors required to actuate the water curtains in the Reactor Building were not listed for fire protection service from any required listing organization such as the Underwriter Laboratories or Factory Mutual. These Listings are required by the National Fire Protection Association (NFPA) Standards, which the licensee committed to follow. The licensee committed to provide NRC with documentation supporting the use of the installed detectors as being equal to those listed by U.L.

The licensee followed up this commitment by contacting the original supplier of the detectors to perform the tests required by U.L. to gain certification.

The tests were performed by U.L. and the detectors were certified. A letter from U.L. to the detector suppliers dated February 5, 1986 attest to this fact.

The actions taken by the licensee resolve this concern. This item is closed.

(Closed) 85-20-03 (Unresolved Item) Sprinkler System Installation not per (NFPA) Requirement

This finding concerned the observations that some sprinkler heads appear to be misdirected and the heads were designed to protect wall and window openings yet were installed to protect cable trays raising the concern that the heads may not provide adequate protection.

The licensee contacted the fire protection firm that originally installed these sprinkler systems to survey, inspect and reorient the sprinkler heads as necessary to provide the proper sprinkler coverage.

Additionally, the licensee provided the inspector with a Factory Mutual lab report which indicated that the spray pattern of the sprinkler heads in question, although not specifically designed to protect cable trays are adequate for the protection of horizontal surfaces such as those presented by the cable trays.

The inspector reviewed the existing installation and the report and concluded that the sprinkler installation will perform satisfactorily. This item is resolved.

(Closed) 85-20-04 (Unresolved Item) Functional Testing of Fire Dampers

The NRC identified the concerns that fire dampers are not tested under flow conditions and therefore the assurance that the fire dampers will function during a fire is lacking.

The licensee agreed with this concern and issued a procedure to test all fire dampers every 18 months.

The inspector reviewed this procedure titled "Fire Damper Operability Test" No. F-ST-76V and the results of the last fire damper surveillance and did not identify any unacceptable conditions.

This item is resolved.

(Closed) 85-20-05 (Unresolved Item) Exemption Request to Allow Temporary Core Uncovery

In reviewing the shutdown methodology, the NRC raised the concern that by using the Automatic Depressurization System (ADS) to depressurize the reactor, the core may become uncovered. This is contrary to the Appendix R, III.L.2.b. requirements to maintain the reactor coolant level above the top of the core.

The licensee filed for an exemption from this requirement on the basis that no core damage would occur in this scenario. The analysis presented was that the core would be uncovered for a maximum time of 150 seconds in the 30 minutes required to initiate the Low Pressure Coolant Injection System and reflood the core. This analysis was reviewed by NRR and NRR subsequently approved the exemption request in a letter dated September 15, 1986 from R. Bernero, Director, Division of BWR Licensing, NRR to J. Brons, Senior Vice President - Nuclear Generation, Power Authority of the State of New York.

This item is resolved.

(Closed) 85-20-06 (Unresolved Item) Difficult Access for Fuse Replacement

The NRC identified the concern that the operators effort to replace fuses may be hampered by poor access to certain fuse boxes. In addition, the concern was identified that the box containing spare fuses by the Auxiliary Shutdown Panel 25 ASP-2 is located such that fuses may be lost if dropped.

The licensee addressed these concerns by installing additional emergency lighting in the areas and placing ladders nearby to facilitate access.

The licensee also stated that fuse replacement was an interim shutdown method. Since this findings was identified, the licensee has completed

installation of the redundant control circuit fusing (parallel fuses) so that reliance on fuse replacement is no longer required.

This item is resolved.

(Closed) 87-19-03 (Unresolved Item) Unsealed Fire Barrier Electrical Penetrations

The inspector reviewed the corrective measures taken by the licensee to seal the open fire barrier penetrations identified during the seal surveillance inspection.

The inspector also determined that the open penetrations did not present a safety hazard and would not prevent an orderly plant shutdown in the event of a fire because of their small size and location.

The action taken by the licensee was to seal the affected penetrations with fire rated seals and place the penetrations on the surveillance for future inspections.

This item is resolved.

3.0 Fire Protection/Prevention Program

The inspector reviewed several documents in the following areas of the program to verify that the licensee had developed and implemented adequate procedures consistent with the Fire Hazard Analysis (FHA), Final Safety Analysis Report (FSAR), and Technical Specifications (TS). The documents reviewed, the scope of review, and the inspection findings for each area of the program are described in the following sections.

3.1 Program Administration and Organization

The inspector reviewed the following licensee documents:

-- Technical Specifications, Section 6, Administrative Controls

-- Fire Protection Program, Procedure No. AP 1.6, Revision 4

The scope of review was to ascertain that:

a. Personnel were designated for implementing the program at site; and

b. Qualifications were delineated for personnel designated to implement the program.

No unacceptable conditions were identified.

3.2 Administrative Control of Combustibles

The inspector reviewed the following document:

-- Control of Combustibles and Flammable Materials Procedure No. 10.1.10, Revision 3.

The scope of review was to verify that the licensee had developed administrative controls which included:

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

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

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

d. All wood used in safety-related areas to be treated with flame retardant;

e. Periodic inspection for accumulation of combustibles;

f. Transient combustibles to be restricted and controlled in safety-related areas; and

g. Housekeeping to be properly maintained in areas containing safety-related equipment and components.

No unacceptable conditions were identified.

3.3 Administrative Control of Ignition Sources

The inspector reviewed the following licensee document:

-- Control of welding and cutting, welding administrative procedure WAP-4

The scope of review was to verify that the licensee had developed administrative controls which included:

Requirements for special authorization (work permit) for activities involving welding, cutting, grinding, open flame or other ignition sources and that they are properly safeguarded in areas containing safety-related equipment and components.

No unacceptable conditions were identified.

3.4 Other Administrative Controls

The inspector reviewed the following licensee documents:

-- Technical Specifications, Section 6, Administrative Controls

-- Fire Protection Program, Procedure No. AP 1.6

The scope of review was to verify that the licensee had developed administrative controls which require that:

a. Work authorization, construction permits or similar arrangements are provided for review and approval of modification, construction and maintenance activities which could adversely affect the safety of the facility;

b. Fire brigade organization and qualifications of brigade members are delineated;

c. Fire reporting instructions for general plant personnel are developed;

d. Periodic audits are to be conducted on the entire fire protection program; and

e. Fire protection/prevention program is included in the licensee's QA Program.

No unacceptable conditions were identified.

3.5 Equipment Maintenance, Inspection and Test

The inspector reviewed the following randomly selected documents to determine whether the licensee had developed adequate procedures which established maintenance, inspection, and testing requirements for the plant fire protection equipment:

*F-ST-76A	Fire protection system weekly checks
*F-ST-76B	Electric fire pump operational check
*F-ST-76C	Diesel fire pump operational check
*F-ST-76J3	Smoke and heat detector functional test - recirculation system MG room
*F-ST-76J15	Smoke and heat detector functional test - south cable tunnel
*F-ST-76E	Monthly and annual fire hose station inspection
*F-ST-76J19	Smoke and heat detector functional test - south emergency switchgear room

*F-ST-76J20	Smoke and heat detector functional test - north emergency switchgear room
*F-ST-76J21	Smoke and heat detector functional test - relay room
*F-ST-76J22	Smoke and heat detector functional test - diesel fire pump room
*F-ST-76V	Fire damper operability test
*F-ST-76W	Mechanical fire barrier penetration seals visual inspection

In addition to reviewing the above documents, the inspector reviewed the maintenance/inspection/test records of the items, marked with an asterisk to verify compliance with Technical Specifications and established procedures.

No unacceptable conditions were identified.

3.6 Fire Brigade Training Records Review

The inspector reviewed training records of fire brigade members for calendar years 1987 and 1988 to ascertain that they had attended the required quarterly training and participated in a quarterly drill, and received the annual hands-on fire extinguishment practice.

No unacceptable conditions were identified.

3.7 Periodic Inspections and Quality Assurance Audits

The inspector reviewed the reports of the following Technical Specification required audits:

-- 1985, Triennial Fire Protection Audit performed by an outside consultant, Professional Loss Control, Inc., dated November 11, 1985.

-- 1986, Audit No. 605, Annual Fire Protection.

-- 1987, Draft Audit No. 639, Annual Fire Protection

The scope of review was to ascertain that the audits were conducted in accordance with the Technical Specifications and audit findings were being resolved in a timely and satisfactory manner.

No unacceptable conditions were identified.

3.8 Facility Tour

The inspector examined fire protection water systems, including fire pumps, fire water piping and distribution systems, post indicator valves, hydrants and contents of hose houses. The inspector toured accessible

vital and nonvital plant areas and examined fire detection and alarm systems, automatic and manual fixed suppression systems, interior hose stations, fire barrier penetration seals, and fire doors. The inspector observed general plant housekeeping conditions and randomly checked tags of portable extinguishers for evidence of periodic inspections. No deterioration of equipment was noted. The inspection tags attached to extinguishers indicated that monthly inspections were performed.

No unacceptable conditions were identified.

4.0 Unresolved Items

Unresolved items are matters about which more information is required to ascertain whether they are acceptable items, violations or deviations. Section 2 of this report provides resolution to items identified in previous inspections.

5.0 Exit Interview

The inspector met with licensee management representatives (see Section 1.0 for attendees) at the conclusion of the inspection on January 28, 1988. The inspector summarized the scope and findings of the inspection at that time. The inspector also confirmed with the licensee that the report will not contain any proprietary information. The licensee agreed that the inspection report maybe placed in the Public Document Room without prior licensee review for proprietary information. (10 CFR 2.790).

At no time during this inspection was written material provided to the licensee by the inspector.