

U. S. NUCLEAR REGULATORY COMMISSION
Region I

Report No. 50-219/84-21
Docket No. 50-219
License No. DPR-16 Priority -- Category C
Licensee: GPU Nuclear Corporation
Post Office Box 388
Forked River, New Jersey 08731

Facility Name: Oyster Creek Nuclear Generating Station

Inspection At: Forked River, New Jersey

Inspection Conducted: July 23-27, 1984

Inspector: *(Signature)*
for A. G. Krasopoulos, Reactor Engineer

10/4/84
date

Approved By: *(Signature)*
C. J. Anderson, Chief, Plant System Section

10/4/84
date

Inspection Summary:
Inspection on July 23-27, 1984 (Report No. 50-219/84-21)

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 tour. The inspection involved 33 inspector-hours onsite and 4 inspector-hours in office by one region based inspector.

Results: No violations were identified in any of the eight areas inspected. However, one deviation was identified in one area (Failure to seal penetration in the Reactor Building Southwest Stairwell).

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DETAILS

1.0 Persons Contacted

1.1 GPU Nuclear Corporation (GPU)

- * E. Ahern, Acting Manager, OC Site Audit
- * F. Barbieri, Technical Functions - Building Services
- * S. DeMerchant, BWR Licensing Engineer
- * P. Fiedler, Plant Director
- S. Fuller, Operations QA Manager
- * D. Holland,, OC Licensing Manager
- M. Orski, Operations QA Lead Monitor
- * W. Smith, Plant Engineering Department Director
- C. Tracy, Manager, QA Modifications/Operations
- * R. Turner, Supervisor QC
- E. Walters, Fire Brigade Instructor
- * F. Weinzimmer, Plant Engineering Manager, Special Projects
- * K. Zimmermman, Fire Protection Coordinator

1.2 Nuclear Regulatory Commission (NRC)

- * C. Cowgill, Senior Resident Inspector
- * R. McBrearty, Reactor Engineer
- * J. Wechselberger, Resident Inspector

* Denotes those present at the exit interview.

2.0 Followup of Previous Inspection Findings

(Closed) Unresolved Item (50-219/79-24-01): Modification Required By Amendment No. 29 to Provisional Operating License No. DPR-16

The inspector verified by observation and examination of records that all modifications required by Amendment No. 29 to Provisional Operating License No. DPR-16 have been completed with one exception: the Remote Shutdown Station. The licensee by letter dated September 16, 1983 has informed NRC Operating Reactor Branch (ORB) 5, Division of Licensing, that the Alternate Shutdown System will be installed and made operational by the end of Cycle 11 outage.

This item is resolved.

(Closed) Violation (50-219/83-23-01): Failure to Maintain a Fire Watch for the Non-Functional Fire Doors in the Diesel Generator Building

The violation occurred when a Group Shift Supervisor (GSS), ordered the removal of a fire watch assigned to patrol the nonfunctional fire door between the Diesel Generator Bays. The licensee's corrective actions were documented in a letter from P. Fiedler to R. Starostecki, NRC dated

January 3, 1983. The corrective actions included the re-establishment of the fire watch, instruction of the GSS responsible for the unauthorized removal of the fire watch, and instructions/reminders to all Group Shift Supervisors and Group Operating Supervisors (GOS) about the need to follow instructions and directives, in order to prevent recurrence. The inspector reviewed the corrective actions taken by the licensee and determined that they were adequate.

This item is resolved.

(Open) Unresolved Item (50-219/80-07-02): Additional Documentation Required to Verify Adequacy of Fire Protection Modifications Required by Amendment 18 to DPR-16

The licensee stated that the required documentation is available and will be forwarded to NRC within 30 days upon receipt of this letter. This item is unresolved pending review of the documentation submitted by the licensee.

(Open) Unresolved Item (50-219/82-07-01): Electrical Equipment Protection from Deluge System Discharge

As a result of an inadvertent discharge of a Fire Protection Deluge System on elevation 51'-0" Reactor Building, the licensee determined that electrical equipment shorts were not considered during the safety evaluation of the equipment in this area.

The licensee indicated to the inspector that a report has been prepared, identifying the electrical equipment protected from Fire Protection system discharges and also the type of protection provided, (drip shields, sealing etc.).

The licensee committed to forward this report to NRC within 30 days upon receipt of this letter. This item is unresolved pending review of the documentation submitted by the licensee.

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

- Oyster Creek Nuclear Generating Station - Fire Protection Program. Fire Protection Comparison to Standard Review Plan 9.5.1 Appendix A
- Procedure 101.2, Fire Protection Organization, Responsibilities and Controls, Revision 6
- Oyster Creek Fire Hazard Analysis Report dated June 29, 1982

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 licensee documents:

- Procedure 120.5, Control of Combustibles, Revision 1
- Procedure 119, Housekeeping, Revision 6
- Procedure 120, Fire Hazards, Revision 10

The scope of review was to verify 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 documents:

- Procedure 120, Fire Hazards, Revision 10
- Procedure 120.1, Welding, Burning and Grinding Administrative Procedure, Revision 8

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

- a. Requirements for special authorization (work permit) for activities involving welding, cutting, grinding, open flame or other ignition sources, and safeguard provisions of safety-related equipment and components; and
- b. Prohibition on smoking in safety-related areas, except where "smoking permitted" areas had been specifically designated by plant management.

No unacceptable conditions were identified.

3.4 Other Administrative Controls

The inspector reviewed the following licensee documents:

- Technical Specifications, Section 6, Administrative Controls
- Procedure 101.2, Fire Protection Organization Responsibilities and Controls, Revision 6
- Procedure 120.4, Fires, Revision 0
- Procedure 120.2, Continuous Fire Watch Instructions, Revision 1

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

- a. Work authorization, construction permit or similar arrangement is 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 Tests

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:

- *-- Procedure 645.6.009, Cycling of Fire Protection System Valves, Revision 1
- Procedure 333, Plant Fire Protection System, Revision 16
- *-- Procedure 645.6.005, Fire Protection System Alarm Circuitry Test, Revision 4
- *-- Procedure 645.6.003, Fire Hose Station, Hose House and Fire Hydrant Inspection, Revision 3
- Procedure 645.6.004, Fire Suppression Water System Valve Lineup, Revision 6
- Procedure 645.6.006, Fire Hose Hydrostatic Testing, Revision 1
- Procedure 645.6.012, Fire Pump Functional Test, Revision 4
- *-- Procedure 645.4.001, Fire Pump Operability Test, Revision 17
- Procedure 645.6.017, Fire Barrier Penetration Surveillance, Revision 0
- Procedure 645.6.023, Fire Suppression Water System Underground Flow Test, Revision 0

In addition, the inspector reviewed the maintenance/inspection/test records of the items identified by an asterisk (*) in the above document list.

No unacceptable conditions were identified, except as follows:

3.5.1 Lack of Surveillance Testing and Inspections of Fire Dampers

The inspector noted that the licensee does not have a program to inspect, test or maintain the Heating, Ventilating and Air Conditioning (HVAC) duct work Fire Dampers.

The licensee committed to develop a program, prior to startup, for surveillance testing and inspection of the Fire Dampers. The surveillance testing and inspection program shall be based on the recommendations of the National Fire Protection Association Standard No. 90A, Appendix B, Maintenance.

This is an unresolved item pending review of the surveillance and inspection program being developed by the licensee.
(50-219/84-21-01)

3.6 Fire Brigade Training

3.6.1 Procedure Review

The inspector reviewed the following licensee procedures:

- Fire Protection - Comparison to Standard Review Plan 9.5.1, Appendix A
- Training Procedure 1780 - Fire Brigade Training

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

- a. Requirements for announced and unannounced drills;
- b. Requirements for fire brigade training and retraining at prescribed frequencies;
- c. Requirements for at least one drill per year to be performed on a "back shift" for each brigade;
- d. Requirements for local fire department coordination and training; and
- e. Requirements for maintenance of training records.

No unacceptable conditions were identified.

3.6.2 Records Review

The inspector reviewed training records of fire brigade members for calendar years 1983 and 1984 to ascertain that they had successfully completed the required quarterly training/meeting, semiannual drill, and yearly hands-on fire extinguishment practice.

No unacceptable conditions were identified.

3.7 Periodic Inspections and Quality Assurance (QA) Audits

3.7.1 Annual Audits

The inspector reviewed reports of the following annual audits:

- Audit Report S-OC-83-08, Plant Engineering/Fire Protection performed on October 19-28, 1983
- Audit Report S-OC-82-12, Plant Engineering/Fire Protection performed on December 8, 1982 - January 21, 1983.
- The scope of this review was to ascertain that the audits were conducted in accordance with Technical Specification 6.5.3.2.a, and audit findings were being resolved in a timely and satisfactory manner.
- The inspector also noted that in addition to the annual QA audits, the licensee QA personnel monitor TS surveillances and perform plant tours to verify compliance with established procedures.

On a quarterly basis the licensee reviews and evaluates previous monitorings for trends in the following areas: for improvements, for problem area audit findings and outstanding QA deficiency reports. The inspector verified the above by reviewing the following QA reviews:

- General Surveillance, Fire Protection and Housekeeping, 1st Quarter, 1984, Form 6130-QAP7210.04-6(4-84)
- QA Monitoring Report File Index QAMR 84-24015, 84-24016 and 84-24022

No unacceptable conditions were identified.

3.7.2 Triennial Audits

The licensee established the requirements for Triennial QA Audits of the Fire Protection Program in January 1984 by license Amendment 69.

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 except as follows:

Penetration in the Southwest Stairwell of the Reactor Building Allows Smoke Infiltration

The inspector noted that the penetration of a ventilation duct in the Southwest Stairwell of the Reactor Building, Elevation 51'-0" was not sealed. In the event of a fire in the Reactor Building, this unsealed penetration may cause the stairwell to fill with smoke thus impeding fire fighting activities and personnel escape.

The licensee's Fire Protection Report Comparison to Standard Review Plan 9.5.1, Appendix A, transmitted to NRC Office of Nuclear Reactor Regulation (NRR) by a letter dated December 3, 1976, states in part that "Stairwells are designed to minimize smoke infiltration during a fire by their enclosure." The unsealed penetration is a deviation from the Fire Protection Report commitment to minimize smoke infiltration in the stairwells (50-219/84-21-02).

4.0 Unresolved Items

Unresolved items are matters about which more information is required to ascertain whether they are acceptable items, violations or deviations. An unresolved item disclosed during this inspection is discussed in Section 3.5.1.

5.0 Exit Interview

The inspector met with licensee management representatives (see Section 1.0 for attendees) at the conclusion of the inspection on July 27, 1984. The inspector summarized the scope and findings of the inspection at that time.

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