### U.S. NUCLEAR REGULATORY COMMISSION REGION I

- Report No. 50-219/90-10
- Docket No. 50-219
- License No. DPR-16
- Licensee: GPU Nuclear Corporation

Facility Name: Oyster Creek Nuclear Generating Station

Inspection At: Forked River, New Jersey

Inspection Conducted: June 4-8, 1990

Inspector: 7. J. J. Jan	6-20-90
J. P. Lara, Reactor Engineer, Plant Systems Section, EB, DRS	date
Approved by: CA Alesan	6/2./80
C. J. Anderson, Chief, Plant Systems Section, Engineering Branch, DRS	date

Inspection Summary: Inspection Report No. 50-219/90-10

<u>Areas Inspected</u>: Routine unannounced inspection of the licensee's fire protection/prevention program activities. The scope of this inspection included program administration, control of combustibles and ignition sources, equipment maintenance, surveillance tests, fire brigade training, quality assurance lits, and facility tours.

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

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## 1.0 Persons Contacted

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1.1 GPU Nuclear Corporation

Brown, K., QA Lead Monitor

- Busch, G. W., Licensing Manager
- \* Daley, R. J., Fire Protection Engineer \* DeBlasio, J. M., Manager P.E.
- \* Fenti, R., Manager Site QA
- Fitzpatrick, E. E., Vice President and Director
- \* Heller, M., Licensing Engineer \* Prosser, T. G., Fire Protection Instructor
- \* Thompson, P., QA Auditor
- \* Ventosa, J., Fire Protection Engineer

1.2 U. S. Nuclear Regulatory Commission (NRC)

\* Banerjee, M., Resident Inspector Collins, E., Sr. Resident Inspector

\* denotes those present at the exit meeting he d on June 8, 1990

# 2.0 Fire Protection/Prevention Program (64704)

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

2.1 Program Administration and Controls for Ignition Sources and Combustible Materials

The inspector reviewed the following administrative procedures to verify that the fire protection program, as described in the FSAR and other licensing documents, is properly implemented.

The following documents were reviewed:

- 101, "Organization and Responsibility", Rev. 18
- 101.2, "Fire Protection Organization, Responsibilities and Controls", Rev. 11
- 120.1, "Welding, Burning and Grinding Administrative Procedure", Rev. 7
- 120.2, "Fire Watch Instructions", Rev. 2
- 120.5, "Control Of Combustibles", Rev. 3

The scope of the review was to ascertain that:

- Personnel are designated for implementing the program at the site;
- Qualifications are delineated for personnel designated to implement the program;
- Special authorization is required for the use of combustible, flammable or explosive hazardous material in safety-related areas;
- Prohibition exits on the storage of combustible, flammable or explosive hazardous material in safety-related areas;
- Removal is required of all wastes, debris, rags, oil spills or other combustible materials resulting from work activities or at the end of each work shift, whichever is sooner;
- All wood used in safety-related areas is required to be treated with flame retardent;
- Periodic inspections are specified for accumulation of combustibles;
- Housekeeping is to be properly maintained in areas containing safety-related equipment and components;
- Requirements exist 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;
- Prohibition on smoking exists in safety-related areas, except where "smoking permitted" areas had been specifically designated by plant management;
- Fire brigade organization and qualifications of brigade members are delineated;
- Fire reporting instructions for general plant personnel are developed;
- Periodic audits are to be conducted on the entire fire protection program; and
- Fire protection/prevention program is included in the licensee's QA program.

The fire protection program is well defined to address program requirements. The review of these documents indicated that the licensee had developed adequate procedures for fire protection program administration and administrative controls for combustible maerials and ignition sources. Discussions with fire protection engineers indicated that they were knowledgeable of the fire protection program and fire systems. The above areas were reviewed throughout the inspection period and inspector observations are described below.

## 2.2 Equipment Inspection and Tests

The inspector reviewed selected documents to determine if the licensee had developed adequate procedures which established inspection and testing requirements for the plant fire protection equipment. The inspector also reviewed inspection/test records to verify compliance with Technical Specifications and established procedures. Documents reviewed are listed below.

- 119.1, "Fire Protection Inspection", Rev. 9
- 645.2.02, "Fire Pump Diesel Weekly battery Surveillance", Rev. 14
- 645.4.001, "Fire Pump Operability Test", Rev.26 645.6.004, "Fire Suppression Water System Valve Lineup", Rev. 11\* 645.6.011, "Deluge and Sprinkler System Inspection", Rev. 4

- 645.6.012, "Fire Pump Functional Test", Rev. 7 645.6.015, "CO2 Storage Tank Weekly Check", Rev. 4 645.6.016, "Fire Suppression Low Pressure CO2 System Functional
- Test", Rev. 4
- 645.6.020, "Redundant Fire Protection Water Supply Pump Functional Test", Rev. 3
  - 828.2, "Secondary Systems Analysis: Plant Oil", Rev. 11

The surveillance test records and testing frequency associated with the above fire protection system surveillance test/inspections were found to be satisfactory with respect to meeting the requirements of the plant's Fire Protection Technical Specifications. However, the inspector did note an ambiguity in procedure 645.4.001, "Fire Pump Operability Test". This procedure is used to test the operability of the diesel engine fire pumps. The licensee's Technical Specifications require that each diesel pump be run for a minimum of thirty (30) continuous minutes on a monthly basis. The procedure requires that each diesel be started and when a specified oil temperature has been reached, other operating data must be recorded. Subsequently, the diesel mode switch is returned to "Automatic". This action allows the diesel to continue to operate for an additional 15 minutes at which time it will automatically shutdown. Since there is no specified time limit before the mode switch is returned to "Automatic", the potential exists that the switch will be placed in "Automatic" in less than 15 minutes thereby resulting in the diesel engine operating for less than the required minimum 30 minutes. The in\_pector reviewed past test records and verified that in fact the diesel engines had been run continuously for a minimum of 30 minutes

as required. The licensee agreed that the procedure could be subject to misinterpretation and proceeded to revise the subject procedure. The procedure was revised to be more explicit as to the run time requirements by requiring that the diesel engine be run for at least 20 minutes prior to placing the mode switch in "Automatic". The inspector reviewed the changes and concluded that they addressed the concern.

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During the review of test records, the inspector noted that test abnormalities and deficiencies were adequately reviewed and resolved by retest when necessary. The inspector also reviewed the licensee's Fire Protection Program Status Matrix. The matrix identifies the fire protection equipment which requires work, has ongoing work, and requires future work. The fire protection equipment that requires maintenance has only a minor impact on plant safety.

No unacceptable conditions were identified.

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## 2.3 Fire Brigade Training, Procedure and Records Review

The inspector reviewed the fire brigade training program to verify that this program includes:

- a. Requirements for announced and unannounced drills;
- Requirements for 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; and,
- d. Requirements for maintenance of training records.

The inspector reviewed training records of the fire brigade members on shift June 6, 1990 to verify that the above requirements were being met. Records indicated that these individuals had attended the required quarterly training, participated in a quarterly drill, and received the annual hands-on fire extinguishment practice. The fire brigade training records which were reviewed were found to be satisfactory.

The inspector observed the fire watch training class held on June 7, 1990. The Jourse consisted of classroom and hands-on instruction on the applicability and use of the various types of portable fire extinguishers depending on the type of fire. The inspector observed good interaction between the instructor and the participants. During this review, no deficiencies were identified.

### 2.4 Quality Assurance Audits

The licensee's Fire Protection Program requires that annual, biennial and triennial audits of the fire protection program be conducted. Guidance for the performance of these audits was issued to all licensee's in Generic Letter 82-21. The inspector reviewed the reports of the following audits conducted by the licensee's Quality Assurance office to satisfy program requirements.

- Audit Report C-OC-88-01, June 16-July 15, 1988
- Audit report 0-0C-89-12, June 19-30, 1989 (Triennial)

The inspector noted that the documented audit findings and observations were thorough and addressed program requirements. The audits identified fire program discrepancies and recommended program improvements. The licensee has evaluated these items and where warranted implemented corrective actions. It was concluded that the licensee has taken appropriate actions on the audit findings.

### 2.5 Fire Protection Facility Tour

The inspector examined fire protection water systems, including fire pumps, fire water piping and distribution systems, hydrants and contents of hose houses. The inspector toured accessible vital and nonvital plant areas within the Reactor and Turbine buildingsand the fire alarm panels in the control room. Fire detection and alarm systems, automatic and manual fixed suppression systems, interior hose stations, fire barrier penetration seals, and fire doors were inspected and verified to be in service or functional. 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. The inspector performed an inspection of the fire brigade equipment stored at the fire brigade equipment lockers during the tour. The designated equipment was found to be properly maintained and in a ready condition.

The inspector also verified the correct valve positions as specified in surveillance procedure No. 645.6.004, "Fire Suppression Water System Valve Lineup". The as-found valve positions were as specified in the subject valve lineup procedure and therefore presented no system operability concern.

No unacceptable conditions were identified.

#### 3.0 Exit Interview

At the conclusion of the inspection on June 8, 1990, the inspector met with the licensee representatives denoted in Section 1.0. The inspector summarized the scope and results of the inspection at that time.

At no time during this inspection was written material given to the licensee.