



**GPU Nuclear Corporation**

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March 26, 1984

Dr. Thomas E. Murley, Administrator  
Region I  
U.S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

Dear Dr. Murley:

Subject: Oyster Creek Nuclear Generating Station  
Docket No. 50-219  
10 CFR 50.59(b) Reporting Requirement

Pursuant to 10 CFR 50.59(b) enclosed is a brief description of changes made to the Oyster Creek Nuclear Generating Station as authorized by 10 CFR 50.59(a)(1) the calendar year 1982.

In each case, the safety evaluation summarized that there was no unreviewed safety question involved.

Should you have questions concerning this submittal, please contact Mr. Michael Laggart, BWR Licensing Manager, at (201) 299-2264.

Very truly yours,

Peter B. Fiedler  
Vice President and Director  
Oyster Creek

PBF:dam  
Enclosures

cc: Director of Inspection & Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

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### 1. Demineralizer Water Storage Tank Modification

This modification provided for the rerouting of the makeup demineralizer piping from the outlet of the makeup demineralizer to the demineralizer water storage tank. This modification also included the rerouting of the 2-inch recirculation line from the demineralizer water transfer pumps to the makeup demineralizer piping.

### 2. Removal of Masonry Walls

In performing the field investigations required by NRC IE Bulletin 80-11, "Masonry Wall Design", it was determined that several of the walls would not pass the design criteria because they were only constructed to serve as personnel partitions. It was more cost beneficial to remove these walls rather than attempt to upgrade them in protecting safety equipment in the area.

### 3. Chemical Waste Demineralizer System Upgrade

To improve the quality of the water in the chemical waste distillate sample tank prior to it being transferred to the high purity collection tank for continued processing, a temporary chemical waste demineralizer system was set-up. After experiencing some operating difficulties with the temporary system, it was decided to upgrade the system by replacing the temporary hosing with hard piping and providing an auto level control system.

### 4. Installation of Undervoltage Circuit Breakers

This modification provided for new circuit breakers which incorporate undervoltage releases to be installed in the existing 460 volt Motor Control Centers. The new breakers were installed for those loads which have been identified as non-essential, non-safety-related and not necessary for a safe shutdown of the plant. The change was needed to reduce the automatically connected diesel generator loads to an amount which is below its maximum rating. Two major loads affected by this modification are the Service Water System and the Reactor Building Closed Cooling Water System.

### 5. Liquid Poison Injection System

As a result of recommendations made by G. E. and information contained in IE Circular 77-09, the Liquid Poison Injection System electrical control circuitry was upgraded to ensure a coordinated fusing system that will assure firing of the explosive squib valves and energization of the Poison Injection pumps allowing them to run for the required time.

#### 6. Upgrading of Masonry Walls

After analysis were performed on masonry walls per the guidelines of I.E. Bulletin 80-11, it was found that some of the walls needed to be upgraded. Some of the upgrading performed included, (1) reinforcing the support edges of the block walls, (2) removing excess equipment loading from the block walls, and (3) repairing all visible cracks on both sides of the block walls.

#### 7. Torus Ventilation Upgrade

Due to the extensive work that was planned for the torus during the cycle 10 reload outage, the existing torus ventilation system had to be temporarily upgraded to support the work of 20 welders and 20 auxiliary personnel as well as capturing welding exhaust and preventing heat buildup while the modifications were in progress.

#### 8. Control Room Shielding Upgrade

After Completion of the shielding studies required in NUREG-0578, it was found that the core spray booster pump suction and discharge piping located at elevation 51'-3" in the reactor building would be a significant source contributing to an elevated dose rate to the control room. This modification provided for the installation of additional shielding to protect the control room such that postaccident recovery operations may be performed.

#### 9. Fuel Pool Filter Pump Motors

This modification provided replacement of the existing overload heaters installed in Motor Control Centers 1A21 and 1B21 for the Fuel Pool Filter Pump Motors. This change was desired in order to provide adequate overcurrent protection from motor overheating due to overcurrent conditions caused by undervoltage at motor terminals.

#### 10. Additional Protective Relays

The Pennsylvania - New Jersey - Maryland (PJM) Interconnection Planning and Engineering Committee had recommended that the Oyster Creek generator protection be retrofitted and upgraded to conform with current protective relaying philosophy and design standards. This modification provides for the new protective relaying of the generators backup ground, backup loss-of-field and overexcitation (volts/hertz) protection. The new protective relays and associated equipment were installed in the existing control panel 11XR which is adjacent to the main generator panel 12R.

#### 11. Valve Stem Leakoff Lines

This modification provided valve steam packing leak off lines of valves V-16-1 in the cleanup Demineralizer System and V-14-36 and N-14-37 in the Emergency Condenser System. This will provide a controlled leakage path for reactor coolant that may leak past the valve packings. The controlled leakage path will allow the leakage to be included as part of the plants identified leakage and will prevent leakage from the valve packings directly to the containment. Provision of the leak off will preclude the need to backseat the valves.

#### 12. Replacement of Standby Gas Treatment Exhaust Fan Motors

The existing 10 Hp. motors were replaced by 15 Hp. motors to eliminate an overload condition that would have existed with the 10 Hp. motors. This overload condition would have existed as a result of increasing the fan capacity. The fan capacity had to be increased to provide a higher horsepower motor to drive the fan at its new capacity.

#### 13. Oil Spill Retention Structures

This modification provided for the construction of three oil spill retention structures. These structures will prevent oil spills from contaminating surface or ground water. The areas provided with these structures are the two fire protection pump diesel tanks, the turbine waste oil tank and the waste oil storage area. The oil retention structure will be a concrete bathtub placed directly below the tanks and will be able to hold 100% of the stored oil in the fire pump diesel tanks and the turbine waste oil tanks, and 25% of the oil stored in the waste oil storage area.

#### 14. Radiation Shielding Door

With the storage of medium level Radwaste in an open bay of the old Radwaste Building a modification was required to install radiation shielding door to protect personnel who would be passing by the room or working in the corridor next to the room. This door would reduce the radiation level to approximately 25 mrem/hour outside the storage area.



#### 15. Radiation Monitoring System

A previous modification was completed which transfers domestic waste water from the facilities at the plant via underground sanitary lines to a central holdup tank located under the parking lot near the main entrance.

This modification installs a radiation monitor to continuously monitor the effluent as it is pumped from the holdup tank to an 8 inch gravity line that discharge to the Ocean County Utilities Authority Regional Collection System. The system will continuously indicate and record radiation levels. If out of specification levels are detected, an alarms will be initiated in the security building. The alarming condition would be reported to the control room where an investigation would be initiated. If radiation levels continued to rise, the sewage lift pumps #1 and #2 would be tripped automatically.