1. BA#402002 Spent Fuel Pool Cooling Pumps Modification

This modification allows for a complete core off load in a timely fashion (approximately 11 days after shutdown) to support the inspection and refueling activities during the refueling outages. The existing system does not permit smooth operation and is undesirable for operations since the restrictions in flow requires operation of valves at other than design parameters. This was accomplished by replacing the existing augmented fuel pool cooling pumps with smaller capacity pumps and installing additional plates in the AFPC heat exchanger. This allows for lower fuel pool flow rates and higher cooling capacity. This modification allows for parallel operation with the original fuel pool cooling system and improves system operability.

2. BA#402005 Fuel Pool Capacity Expansion Phase III

To maintain the capability to off load the entire reactor core, the capacity of the spent fuel pool is being increased through the installation of new fuel racks. Phase III of this reracking increased the number of storage locations from 1400 to 1740.

3. BA#402012 ALARA Mods - Shielding

This modification provided shielding as necessary to lower radiation exposure levels in certain designated "High Radiation" areas. Radiological Engineers at Oyster Creek identified areas which required shielding. Oyster Creek Project Engineers then designed the shielding to meet each individual need. This shielding was installed on such components as the reactor cavity drain line on the 75 ft. elevation and various other components as discussed in the referenced BA.

4. BA#402023 Torus Support Structure

An analysis of the effects of hydrodynamic loads on the shell caused by postulated LOCA accident phenomena was made at the request of the NRC. The original design did not account for all the loads and therefore the following modifications were performed:

a. The mid-bay saddle support was installed for each of the 20 bays. The saddle support consists of two flanges and a web forming an I-beam-type cross section, each piece being 1.5 inches thick. The saddle flange is welded continuously to the torus shell. Each saddle rests on, and is bolted to, two base plates which are covered with lubrite pads. Slotted bolt holes permit the saddle to slide (laterally) when the torus undergoes thermal expansion.

b. The lower half of the torus shell is reinforced by eight external straps on each bay. The straps are 1.25 inches thick and 16 inches wide and are welded continuously to the shell. Four of the straps in each bay extend several feet above the centerline on each side of the torus. As a result of the metered shape of each bay and the existing reinforcement at the outer support columns, the other four straps in each bay are partial straps extending from the metered joint to the support column attachment.

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c. There is a ring girder at each intersection between the two adjacent bays. The ring girder consists of a one inch thick web and flange. Between bays 7 and 8, the Cleanup Demineralizer Relief Valve piping from two supports are welded to the ring girder. The two supports required reinforcement welds. The Safety Relief Valve Y-Quenchers at bays 8 and 13 have center supports assemblies that also required reinforcement.

5. BA#402189 TBCCW Surge Tank Relocation

Construction of the new cable spreading room necessitated the relocation of the TBCCW Surge Tank. A platform was built in the northeast corner of the turbine building so that the center line of the tank was approximately 35 feet above the operating floor, about 8 feet higher than the tank was previously mounted. A new remote level indicator and flow meter/totalizer was installed. The drain and overflow were hard piped to a mezzanine floor drain going to sump 1-1.

6. BA#402192 New Cable Spreading Room

The former Mechanical Equipment Room was converted into a second cable spreading room due to the lack of available space and penetrations, in and from, the old spreading room. Erection of the cable bridge tunnels; relocation of lighting, ventilation, office building chiller, and miscellaneous instruments; installation and new fire suppression and detection equipment were all included in the modification.

7. BA#402225 R/W Evaporator Upgrade

The following modifications have been made to improve the operation of the new radwaste evaporators. 1) Chemical waste system in line pH indication upgrade; installation of pH sensors in the evaporation process feed line which are more accurate and reliable than their predecessors. 2) Installation of pH and density monitoring system (inline) in the evaporator bottom recirculation line. 3) Installation of flush water interlock system which insures the evaporator concentrates pump pressure transmitter line does not plug up, and 4) Evaporator bottom sample system installation.

8. BA#402227 R/W FCV-013 Relocation Modification

Five valves, formerly manually operated locally in the old radwaste building used to recycle off-specification processed waste water back through the processing system, were equipped with electro-pneumatic operators for remote operation from the new radwaste building control panel #RB-1" which houses the control switches and indicating lights. Three of the five were formerly 4" gate valves which were replaced by plug valves to avoid the use of 480V motor operators. Additionally, two valves, formally manually operated three way plug valves located in the old radwaste building, used to direct waste water from the Regeneration System Low Conductivity Compartment (HP-HV-103) and the Rx Building and Drywell Equipment Drain tanks to either waste col- lector tank HP-T-1A or HP-T-1B, were equipped with electro-pneumatic opera- tors for remote operation from the new radwaste control panel which contains the control switches and indicating lights.

9. BA#402256 Torus Temperature Instrumentation

This modification consisted of installing twenty temperature sensors in the torus for local and bulk temperature readings. The portion completed in 1983 was the installation of the thermowells. The instrumentation and cabling will be added during the next scheduled refueling outage.

10. BA#402295 Control of Heavy Loads

Hardware changes to this modification included the fabrication of a new Cavity Shield Plug Lifting Beam, the reinforcement of the Reactor head Strongback and Equipment Pool Plug Lifting Beams, and the load testing of the beams. The main fuel grapple was derated to 800 lbs. and the bridge frame trolley mounted auxiliary hoists were derated to 750 lbs.

BA#402303 Oil Spill Retention Facility

11. A permanent storage area to contain 55 gallon drums of waste oil/solvents was constructed. A containment tub for the fire pump diesel tanks was constructed. A containment tub for the waste turbine oil tank was constructed.

12. BA#402319 Torus Vent Header Columns

This modification included replacement of the existing four-inch Schedule 80 vent header support columns with five-inch solid round bar columns, and strengthening of the attachment fixtures for these columns.

13. BA#402320 Torus Vent Header Downcomer Reinforcement

This modification consisted of adding a 1.0 inch thick reinforcement plate to the vent header in the region around each of the 60 downcomer pairs.

14. BA#402393 Respirator Cleaning Facility

A trailer was installed on site for the purpose of cleaning respirators and associated material for reuse within the plant. The trailer was installed by the NW corner of New Radwaste at the beginning of the 1983 outage.

15. BA#402525 Service Water Valve Replacement

The project included the replacement of 4 service water system valves used for isolation of the RBCCW Heat Exchangers.

16. BA#402554 Fuel Oil Delivery Meter

A fuel oil delivery system was installed at the No. 2 fuel oil storage tank. The modification included the following: (1) a fuel oil metering system designed to accurately totalize and record the quantity of fuel oil delivered per shipment, (2) appropriate valving, piping and connections devices necessary to properly off load fuel oil, and (3) a containment pad at the fuel oil valving/metering area and a concrete pad for the delivery truck in order to provide necessary containment of inadvertent oil spills.

17. BA#402557 Torus Downcomer Bracing

Each section of each of the sixty pairs of downcomers was shortened to reduce its submergence under the water thus reducing possible LOCA loads. The downcomer bracing was fitted with two clamps to each downcomer and a pipe section connecting the clamps so that each leg will vibrate in unison or dampen the others vibrations.

18. BA#402560 NRW Dry Active Waste Compactor Upgrade

This modification consisted of replacing a 12-ton compactor with a 40 ton compactor. This will result in a packaging density increase, thereby reducing the volume of dry waste, thus decreasing burial and transportation costs.

19. ET 83-77 Removal of Existing Water Trap

This modification removed the existing Armstrong water trap on the 1-2 instrument air pre-filter and replaced it with a Zurn solid state timer auto- matic drain valve.

20. ET 82-016 Permanent Jumper Installation

This modification installed permanent jumpers on MCC 1AB2 units EØ4, BØ4 and BØ3 for V-14-36, V-14-37 and V-16-1. In addition a change was made to the setting of the opening limit switch from 10% off the backseat to 2%.

21. ET 81-573 Inter and After Cooler Level Columns

This modification replaced the worn out Tygon tubing level columns with new hard plastic. The 1A, 1B and 1C inter and after condensers were fitted with 3/8" tubing and isolation valves were installed on the inlet and outlet of the level columns.

22. ET 81-572 New Pressure Gauge and Sight Glass

This modification installed a new pressure gauge and a sight glass on each inlet and outlet water box associated with condensers 1A, 1B and 1C. In addition, temperature gauges and thermowells were added to the outlet water boxes and pressure gauges were added to existing pressure transmitters PT9, PT10, PT11, PT12, PT13 and PT14. All of the pressure gauges have isolation valves and all of the new instrumentation use existing taps.

23. ET 83-557 Time Delay Increase

This change increased the time delay of relay 52 VM from 4 seconds to 7 seconds. Since this relay arms the "47" undervoltage relay after diesel breaker closure, this increased time delay will allow greater time for generator voltage buildup to prescribed levels prior to arming the protective trip circuit.

24. ET 83-307 SGTS Heating Coil Power Supply

This modification splits the power supply to relays K6 and K7 which control heating coils for SGTS trains I and II. Originally both relays were powered from a single power source.

25. ET 82-402 Emergency Diesel Generator Building Lighting

This modification installed emergency lights in the Emergency Diesel Generator Building.

26. ET 82-001 Installation of Test Fuses

Per a revision to the technical specification, it is now required to test the Low Voltage annunciator for the main station and D/G batteries. For the "C" station batteries, there were no provisions to perform this test other than shutting down the system and lifting leads. This modification installed fuses which would be used to perform the required testing.

GPU Nuclear

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Writer's Direct Dial Number:

March 1, 1985

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
10CFR50.59(b) Reporting Requirement

Pursuant to 10CFR50.59(b) enclosed is a brief description of changes made to the Oyster Creek Nuclear Generating Station as authorized by 10CFR50.59(a)(2) for the calendar year 1983.

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

Should you have any questions concerning this submittal, please contact Mr. Steve DeMerchant, BWR Licensing Engineer, at (201) 299-2254.

Very truly yours,

Peter B. Fiedler
Vice President and Director
Oyster Creek

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

NRC Resident Inspector
Oyster Creek Nuclear Generating Station
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