PEACH BOTTOM ATOMIC POWER STATION

UNIT NOS. 2 AND 3

ANNUAL PLANT MODIFICATION REPORT

January 1, 1979 through December 31, 1979

Submitted to

The United States Nuclear Regulatory Commission

Pursuant to

Facility Operating Licenses Nos. DPR-44 and DPR-56

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ANNUAL PLANT MODIFICATION REPORT

This report for Peach Bottom Atomic Power Station Unit Nos. 2 and 3, License Nos. DPR-44 and DPR-56, is issued in fulfillment of the reporting requirements of 10CFR 50.59. It describes changes made to the facility as the facility is described in the safety analysis report. This report covers modification work completed in 1979.

UNIT 2

Installation of a Blank Flange in Place of Unit 2 "A" Core Spray Test Line Restricting Orifice

A modification to the 'A' core spray loop on Unit 2 was completed. A blank flange was fabricated and installed at RO-42A. The purpose of this modification is to ensure no flow to the torus through the "A" core spray test loop with the internals of valve MO-14-26A removed. Valve MO-14-26A internals were removed because the seat ring in the valve had vibrated loose and was badly damaged. Following repair of the valve the blank flange was removed and the system returned to normal.

This modification was designed and the safety evaluation performed by Mechanical Engineering. The safety evaluation determined that this modification did not create an unreviewed safety question as defined in 10CFR 50.59 (a)(2), nor did it involve a change to the Technical Specifications.

Modification to Core Spray Full Flow Test Valve

The modification to the core spray full flow test valve, MO-2-14-26A, was completed. The modification involved replacing the former monel seat ring with a 13% chrome hard faced steel seat ring. The installation of the seat ring also included tack welding the new seat ring in place. This modification was prepared by Mechanical Engineering.

This modification does not create an unreviewed safety question as defined by 10CFR50.59 (a) (2), nor does it involve a change to the Technical Specifications.

Modification to the Piping Between the Recombiner and Steam Jet Air Ejectors

A modification to the Unit 2 recombiner off gas piping was completed. The modification involved removing a welded steel 4" elbow and replacing the elbow with a flanged cast elbow made of

stainless steel. The purpose of this modification was to remove from service an elbow which had developed perforations due to erosion.

This modification was reviewed by Mechanical Engineering. It has been determined that this modification does not create an unreviewed safety question as defined in 10CFR 50.59 (a)(2), nor does it involve a change to the Technical Specifications.

Modification to the "C" Reactor Feed Pump (RFP) Discharge Line Restraint

A modification to the 2 "C" RFP discharge line restraint was completed. The modification involved strengthening the strut, repairing damaged welds, adding an additional 6" I-beam, and replacing brackets on the existing restraint. The purpose of this modification was to repair and strengthen an existing pipe restraint on the feedwater system.

It has been determined that this modification does not create an unreviewed safety question as defined in 10CFR 50.59 (a)(2), nor does it involve a change to the Technical Specifications.

Installation of Temporary Line Between Control Rod Drive (CRD) Pump Discharge and No. 2 Seal Cavity on 2A Recirculation Pump

The installation of a temporary 3/8" stainless steel tube connecting PI-4478A and B on the CRD pump discharge lines and PI-27A on recirculation pump 2AP34 No. 2 seal cavity was completed. This line will be used to maintain No. 2 cavity pressure at its normal pressure of 500 psig. Low pressure in the cavity can cause seal damage due to poor seal lubrication and due to high differential pressure across the seal between No. 1 and No. 2 cavity. This temporary tubing will connect between points which are not Q listed. Reliability of the recirculation pump should be increased while the discharge pressure and volume of the CRD pumps will not be significantly affected.

It is concluded that this modification does not involve an unreviewed safety question as defined in 10CFR50.59 (a) (2), nor does it involve a change to the Technical Specification.

Reactor Feed Pump Bypass Line Pipe Supports

The modification of four pipe supports on the Unit 2 reactor feed pump bypass line was completed. This modification was necessitated by cracking of the bypass line where one of the old pedestals was welded to the line. The original pipe supports consisted of pedestals welded to the bypass line and riding upon a bearing plate located at the base of the pedestal. The new pipe supports have a saddle welded to the bypass line. This saddle rides on a bearing plate atop a pedestal with the pedestal

ridgidly mounted at its base. The new pipe support considerably reduces the transmittal to the bypass line of frictional forces encountered on the bearing plate.

It was determined that this modification does not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor a change to the Technical Specification.

Reroute Cables in High Pressure Coolant Injection System (HPCI) Steam Leak Detection System

The rerouting of nine cables and installation of three additional cables in the HPCI steam leak detection system was completed. In addition six relays in panel 20C32 have been canned to provide separation. Previously it was possible for a single tray failure or relay failure in a panel to cause both loss of High Pressure Coolant Injection System and Reactor Core Isolation Cooling System or High Pressure Coolant Injection System and Automatic Depressurization System. The installation of the cables in their own conduits and canning of the relays prevents this.

It was concluded that this modification does not involve an unreviewed safety question as defined in 10CFR 50.59 (a)(2). This modification does not involve any changes in the Technical Specifications.

Temporary Drain Line from Recirculation System Sample Line to 2B Non-Regenerative Heat Exchanger

The installation on Unit 2 of a temporary line from the outboard side of AO-40 (recirc sample outboard isolation valve) to the 2B non-regenerative heat exchanger chemical cleaning connection was completed. The purpose of this line is to provide a blowdown flow from the reactor to the main condenser while the Reactor Water Cleanup System suction line is blocked. The PORC noted that this temporary blowdown line does not auto isolate on Standby Liquid Control System (SBLCS) injection, as does the Reactor Water Cleanup System. The PORC believes that it is acceptable to manually isolate this temporary line by closing AO 2-2-39 and 40 immediately after the manual initiation of the SBLCS. The PORC noted that the SBLCS can only be initiated manually. These instructions have been added to the SBLCS control station in the form of an information tag. The Reactor Water Cleanup system high temperature isolation can be done manually by closing either valve AO-39 or valve 40. The control switches for these two valves have been tagged accordingly.

This change was independently reviewed. It was concluded that this modification does not involve an unreviewed safety question as defined in 10CFR50.59 (a)(2), nor does it involve a change to the Technical Specifications.

Installation of Test Tap on the Cooling Water to Compressor Jacket Line on the 2A Instrument Air Compressor

A modification to the cooling water to the 2A air compressor was completed. The modification involved the installation of a one inch test tap on the cooling water supply piping to the jacket on the 2A instrument air compressor. The purpose of the 1 inch test tap is to provide the ability to check the jacket cooling water temperature.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did in involve a change to the Technical Specifications.

Replace Reactor Core Isolation Cooling (RCIC) System Pump Suction Pressure Transmitter

The modification to the RCIC pump suction pressure instrumentation was completed. The modification involved replacing a GE model 551 pressure transmitter with a Rosemont Alpha Line Transmitter. The purpose of this modification is to remove from service an instrument which has been damaged and can no longer be replaced in kind.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

UNIT 3

Installation of New 24 Volt Batteries and Rack

The modification to the 24 volt DC battery system (3BC27 and 3DD27) was completed. The modification involved installing new batteries and racks for the 3BC27 and 3DD27, 24 volt DC system. The purpose of the modification is to replace the old batteries which were leaking, with new batteries which meet or exceed the original design specifications.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modification to the Refueling Bridge Air Distribution Piping

The modification to the refueling bridge air distribution system was completed. The modification involves replacing the existing carbon steel pipe with 1/2" stainless steel tubing and fittings. The modification also included replacing the carbon steel fittings on the various solenoid valves on the refueling bridge. The purpose of the modification is to eliminate the problem of rust particles in the system caused by oxidation of the carbon steel pipe.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Supply Ventilation Duct to 3B Reactor Feed Pump Control Cabinet

A modification which involved channeling a ventilation supply duct to cool the area around the 3B reactor feed pump control cabinet was completed. Temperatures in the cabinet have been observed to exceed 120°F. Such temperatures threaten electronic components in the cabinet which are rated at 122°F. The 4" ventilation supply duct taps into the 1400 cfm supply duct which ventilates the 3B feedwater pump room. This small duct has no significant affect on ventilation balancing, but will ensure that room ventilation is channeled to a location where it is needed.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Replacement of Condensate Reject Manual Bypass Valve

The replacement of the Unit 3 condensate Reject Manual Bypass Valve with a different type valve was completed. The original valve is a 300#, 8", Walworth globe valve. Inspection of valve

internals revealed the seat was loose in the valve body and the seat threads were washed away. A similar situation had previously been found in the same valve in Unit 2. The Unit 2 problem was corrected by replacing the Walworth valve with 600#, 8", Rockwell-Edwards globe valve. It is believed that the higher pressure rating of the Rockwell-Edwards valve will enable it to better withstand service in the system. The same type valve has been used in Unit 3. The valve replacement meets or exceeds system specifications.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Reinforcement of Electro-Hydraulic Control System (EHC) Tubing Pipe Hangers Near the Turbine Control Valves

The reinforcement of the pipe hangers on the EHC tubing near the Unit 3 control valves was completed. This modification reduces vibration levels and the possibility of fatigue failure.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Add a Volume Booster on Condensate Demineralizer Pressure Controller

The installation of a volume booster between pressure controller 3850 and control valve 3850 was completed. The previous valve operation was slow to accurately control flow. The volume booster decreased the response time of the valve to improve flow control.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Execution of Special Procedure 294 - Operation With a Peripheral Control Rod Inserted

The performance of special procedure 294 was completed during 1979. This procedure outlines the steps required to allow the process computer to perform a symmetric P1 calculation with rod 10-11 inserted. The basis for this procedure was provided by General Electric Company in a letter concerning "Process Computer Operation at Peach Bottom 3 with a Peripheral Control Rod Inserted", dated 6/27/79.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Kf Factor Revision - 105% Flow Line

Kf is the flow-biasing correction factor which normalizes the calculated Critical Power Ratio (CPR) to the 105% power, 100% core flow CPR limit. The modification to change the Kf factor to correspond to a 112% flow line as per Special Procedure 295 was completed to allow increased flow during end of cycle coastdown on Unit 3.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modification to Static Inverter Capacitors

A modification to the Unit 3 static inverter output capacitors was completed. The modification involved replacing the old capacitors with a bank of equivalent capacitance. The purpose of the modification was to replace the original capacitors which had failed.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Installation of a Fuel Channeling Hoist on the Unit 3 Refueling Floor

A modification to the fuel inspection platform area on the Unit 3 refueling floor was completed. The modification involved installing a new 500 pound capacity fuel channeling hoist on the south wall of the refueling floor steel support structure. In addition two sheaves were mounted on the roof structural steel to provide guidance for the 1/4" guide cables. The purpose of the modification is to provide a means of lifting new fuel channels above the fuel inspection platform and then lowering the channels onto the fuel elements prior to the placement of the new fuel into the fuel pool.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Replacement of 2 "A" Feedwater Tube Bundle

This modification involved replacing the existing feedwater heater tube bundle with a new heater tube bundle. The drain cooler end plate and inlet were redesigned. The purpose of the modification was to remove from service the former tube bundle which had many tube failures.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modification to the Control Rod Drive (CRD) System Scram Discharge Header

The modification to the CRD scram discharge header was completed. The modification involved the installation of a cleaning connection (weldolet) on the scram discharge header. The purpose of the modification is to provide a means to access the scram discharge header in order to decontaminate the header.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Grinding of Hydraulic Snubber Mounting Lug on 3 "A" Recirculation Pump Motor

The modification to a hydraulic snubber mounting lug on the 3 "A" recirculation pump motor was completed. The modification involved grinding on the snubber mounting lug so that the snubber may be properly mounted and aligned.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Installation of Thermocouples on Reactor Vessel Level Measuring Yarway Column

The installation of thermocouples along the length of the reference columns was completed. The purpose of the modification is to provide temperature indication of the condensate in the reference leg. The thermocouple leads penetrate the drywell through an electrical penetration.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Install Cleaning Flange in the Reactor Water Cleanup System (RWCU)

The modification to the reactor water cleanup piping system low point was completed. The modification involved installing a new flange equipped with a removable clean-out plug. The purpose of the modification is to provide a means of accessing the RWCU piping system low point to allow for a backflush to clean out contaminated sludge.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Installation of Feedwater Flow Limiter Circuitry

The modification involved the installation of four relays in the feedwater and recirculation cabinet and the wiring of relay contacts from a reactor protection system cabinet to the feedwater and recirculation cabinet. The purpose of this modification is to limit the feedwater flow to 90% following a reactor scram with three feed pumps operating.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modification to the Refueling Bridge Air Compressor Electrical Circuitry

The modification to the refueling bridge air compressor electric motor was completed. The modification involved changing the electric motor thermal overload rating. The original thermal overload device was rated at 1.7 amps. The new thermal overload device has a rating of 2.5 amps which will provide adequate protection for the motor. The purpose of the modification is to prevent the motor from tripping on it's normal starting surge current.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Reconnection of "C" Main Steam Line (MSL) Radiation Monitor Cable

The modification of the Unit 3 "C" MSL radiation monitor was completed. This modification involved replacing a section of the signal cable from the cable spreading room to the instrument drawer on panel 30C10 in the control room. The splice made in the cable spreading room was made with a qualified coaxial connector. The purpose of this modification was to eliminate an intermittant signal problem on the "C" channel, originating in the vicinity of the 30C10 cabinet in the control room.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Recirculation Drive Flow Vs. Reactor Core Flow Curve Modification

The modification to Recirculation Drive Flow Vs. Reactor Core Flow curve enables the P-1 computer program to run automatically.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

UNIT 2 & UNIT 3

Powering of Feedwater Master Controller Through a Separate Fuse

This modification consisted of powering the feedwater master controller through a new fuse dedicated solely for the controller. The controller was formerly fed through a fuse which powered the controller and three multipen recorders. A failure in one of the recorders could have caused the common fuse to blow and result in a loss of the controller and a subsequent unit trip.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modification to Containment Atmosphere Control Valves

A modification to eight containment atmosphere control valves per unit was completed. The modification involved providing each valve with a seismically qualified nitrogen supply to the valve boot seal, and indication in the control room of boot seal pressure. The modification also included a seismically qualified check valve in parallel with the nitrogen pressure control valve. The majority of the work for this modification was completed in 1979, however, it was finally completed in 1980.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Reactor Recirculation System Cable Redesignation/Reinstallation

The redesignation and reinstallation of necessary Recirculation System cables from non-safeguard to safeguard status on both units has been completed. This modification brings the plant into conformance with the original design as modified by the elimination of Low Pressure Coolant Injection System loop select.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Change Four Reactor Core Isolation Cooling System (RCIC) and High Pressure Coolant Injection System (HPCI) Instrument Cables to Cables Having Safeguards Designation and Routing

A modification to change four safety related HPCI and RCIC instrument cables to be safeguard designated cables having the proper cable routing was completed. It was discovered that these cables were not properly designated and/or routed during an Engineering review of safeguards equipment cabling. This error

has been corrected by designating the cables properly and replacing them as necessary with cables routed through the appropriate safeguards cable trays and conduits. This modification corrects a problem which was not previously recognized and brings the plant into compliance with requirements for safeguards equipment.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Change to the Vent Stack Radiation Monitor Alarms

The "Hi" Rad alarm was separated from the "Hi-Hi" Rad alarm in the alarm panels. With the two alarms together the "Hi-Hi" alarm was not detectable after the "Hi" alarm annunciated. This modification changes the alarms from an A and B channel alarm to a combination A or B "Hi" Rad alarm and a combination A or B "Hi-Hi" alarm.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Change Vibration Detectors on the Reactor Feed Pump Turbines

The brass shoes on the vibration pickups were replaced with glass impregnated teflon shoes. Similar replacements in other vibration detectors has resulted in excellent success in reducing grooving of rotating shafts by brass shoes.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Change "Joysticks" on the Refueling Platform to Improved Models Per G.E. Service Information Letter (SIL) 261

The installation of improved switches on the refueling platform "joysticks" was done in accordance with recommendations in General Electric SIL 261. Other plants have experienced mechanical and low speed control problems due to the original switches. The improved switches for the Trolley Master, Bridge Master, and Hoist Master switches provide better control and greater reliability.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Change to Instrument Nitrogen Compressor Low Lube Oil Alarm

A "defeat" switch to the instrument nitrogen compressor low lube oil level alarm was added. This switch prevents the masking of an alarm on the operating compressor when one compressor is blocked. If the defeat switch is "on" when the compressor is returned to service, this brings up an alarm. The modification included a switch and additional wiring inside the compressor control cabinets.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Install Flush Valve on Outlet of the Condensate Filter Demineralizers

Two inch 500 psig valves were installed twelve inches from the "E" valve on each filter demineralizer between the filter demineralizer and the "E" valve. This valve is used to flush resin accumulations from the discharge of the demineralizer vessel.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Reroute and Redesignate Power and Control Cabies for Feedwater Stop Valves

The rerouting and redesignation as safeguard of the power and control cables for the feedwater (MO-29 A & B) were completed. High Pressure Coolant Injection (HPCI) injects through the MO-29A valve, Reactor Core Isolation Cooling System (RCIC) through the MO-29B valve. The modification routes the MO-29A and MO-29B valve cables through the same safeguard cable trays as HPCI and RCIC respectively. This prevents a possible spurious close of the valves by a failure of the non-safeguard cable raceway system or a loss of both systems due to a single failure.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Reroute Cables for High Pressure Coolant Injection System (HPCI) and Reactor Core Isolation Cooling System (RCIC) Inboard Steam Supply Isolation Valves

The installation of dedicated conduits for the power and control cables for the High Pressure Coolant Injection System and Reactor Core Isolation Cooling System Inboard Steam Supply Isolation Valves (MO 2/3-13-15 and MO 2/3-23-15) was completed. Due to the

isolation function of the HPCI and RCIC inboard isolation supply valves it is possible that a single failure of a cable tray could cause the loss of both the RCIC and HPCI system. The installation of the cables in their own conduits will prevent this.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Replace Tube Bundle on Recombiner After Condensers

The replacement of the tube bundles on the recombiner after condensers was completed. The replacement tube bundles are the same as original except that the air cooler section capacity has been increased and the air discharge connection modified. This was required due to the deterioration of the original bundles. Approximately 40% of the tubes were plugged and many other tubes had defects indicating iminent failures.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modify Reactor Water Clean Up (RWCU) Pumps and Add Instrumentation

Various modifications to the RWCU system and pumps were completed. The modifications are as follows:

1. Replacement of the existing bearing housing with a new design. New shafts, bearings, and supports have been installed.
2. Installation of expansion loops.
3. Installation of pump pedestal stiffeners.

The intent of this modification is to reduce RWCU pump failures through improved pump design.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Indicator Lights on Reactor Feed Pump Turbine (RFPT) and Main Unit Lockout Relays

The installation of power indicating lights on the RFPT and main unit lockout relays was completed. On various occasions the fuses feeding this equipment have blown. This was not detected and prevented the relay from operating. The lights facilitate the detection of blown fuses.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Relocate Service Water Supply to Recombiner Precooler

The recombiner service water taps have been relocated from after the recombiner after condenser block valves to before the recombiner aftercondenser block valves. The service water to the aftercondenser has also been throttled to reduce the tube to shell side differential pressure. This had limited the service water supply to the precooler since its supply came after the throttling valve. This modification supplies the precooler with full flow at all times.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Installation of an Additional Control Rod Drive (CRD) Return Line Seismic Pipe Anchor

The installation of an additional seismic pipe support adjacent to the check valve on the CRD return line at elevation 165' was completed. This anchor was designed by the Bechtel Power Corporation and a safety analysis was provided by the Engineering & Research Department.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Process Computer Software Enhancements

Certain enhancements to the process computer software were completed. The purpose of these enhancements is to enable the P4 program to store on bulk the calculated feedwater coefficients to be used by P1, OD-3, OD-15 immediately after the reinitialization of the computer. Also, the P1 program was modified to enable it to block an asymmetric calcuation due to an asymmetric rod pattern. Finally, OD-17 and INZ programs were modified to support the above changes.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modification of Process Computer Power Allocation Factors

A process computer revision to power allocation factors was completed. The purpose of this revision is to comply with the General Electric Company (GE) letter concerning "Updated Process

Computer Constants", dated 5-22-79. These power allocation factors were revised due to data generated during a joint General Electric Company - Electric Power Research Institute program which included extensive gamma scan tests at several operating power plants. The GE supplied data was independently reviewed within GE. The data was installed on a temporary basis for testing and produced the predicted results.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Reactor Protection System (RPS) Motor Generation Set Undervoltage Trip Relay Installation

The installation of an undervoltage trip relay on the output of the Reactor Protection System Motor-Generator set was completed. This relay trips the output at ± 10% of nominal voltage. This is an interim fix installed to satisfy an NRC concern. Later a class IE system will be installed to sense voltage and frequency and isolate the RPS system from the RPS power supply.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modify Refueling Bridge and Replace Fuel Grapple

The installation of a new NF-400 fuel grapple on both refueling bridges was completed. The old fuel grapple would not retract far enough to load a shipping cask. The new grapple has two fingers rather than a single finger for lifting fuel elements. The new grapple is stronger. These changes reduce the possibility of dropping a fuel element.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Upgrade Pipe Hangers to Reduce Stress Levels

Various pipe hangers in Units 2 and 3 were upgraded. These hangers had their anchor bolts replaced and/or braced. This work results from a reanalysis of hanger stress as required by NRC IE Bulletin 79-02.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modification to the Containment Atmospheric Dilution (CAD) System

The modification consists of installing new cables for several components associated with the CAD system. During the review of the primary containment isolation valves, it was discovered that the isolation valves associated with the CAD system were not given the proper treatment. Certain instruments in the system received their power from a panel that is not Q-listed and received no specific seismic certification. The modification resupplied these instruments from seismically qualified panels. There are some devices in the system whose failure could defeat system function. The modification corrected these devices so that their failure will not result in the loss of function of the system. New isolation signal bypass key switches were installed on panel 20C05A (30C05A). Four switches, one for each of the following valves, were installed to replace a single bypass switch.

AO-2513 (AO-3513)	-	Control switch moved from panel 20C03 (30C03) to panel 20C484-A (30C484-A) Bypass key switch on 20C05-A (30C05-A)
AO-2514 (AO-3514)	-	Control switch moved from panel 20C03 (30C03) to panel 20C484-B (30C484-B) Bypass key switch on 20C05-A (30C05-A)
AO-2509 (AO-3509)	-	Control switch moved from panel 20C03 (30C03) to panel 20C484-B (30C484-B) Bypass key switch on 20C05-A (30C05-A)
AO-2510 (AO-3510)	-	Control switch moved from panel 20C05) (30C05) to panel 20C484-B (30C484-B) Bypass key swtich on 20C05-A (30C05-A)

The four bypass key switches have two positions, "normal" and "bypass" and each has the same function as the original bypass switch which controlled all four valve isolation signals. The addition of individual bypass switches is the only operational change involved with this modification. An annunciator "Torus or Drywell Isolation Valve Auto Close Bypass" located on panel 20C205R (30C205R), will alarm when any of the four bypass switches is placed in the "bypass" position.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Replacement of Core Spray Pump Discharge Relief Valves

The modification involving the core spray system relief valves, located on the core spray pump discharge piping to the reactor vessel was completed. This modification involved replacing the existing Crosby relief valves with Lonergan relief valves, and increasing the set pressure of these relief valves from 435 psig to 485 psig. The reason for the modification is two fold: First there is great difficulty in obtaining replacement parts for the

Crosby valves, and secondly, raising the set pressure will give greater assurance against "simmering" of the relief valve. Increasing the set pressure of the relief valve from 435 psig to 485 psig does not present a design condition that has not been considered. The higher set pressure does not exceed the allowable limits of any equipment or piping forming an integral part of the core spray pump discharge piping system, nor does it violate ANSI B31.1 to which the system was originally designed.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Process Computer Software Update for New Fuel Configurations

A modification to the process computer software which allows (1) Unit 3 data banks reshuffling to incorporate the new fuel configuration and (2) Drum layout rearrangement and program and data class changes to accommodate the control cell core operation for Unit 3 BOC4 and for future accommodation for Unit 2 was completed.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modification to Reactor Building Block Walls at North and South Isolation Valve Rooms

Modifications to the concrete block walls near the isolation valve rooms at the south side of Unit 2, RW 222, north side of Unit 2, RW 207, south side of Unit 3, RW 622, and the north side of Unit 3, RW 619 were made. The modification involved installing block wall supports (a channel-plate arrangement) with through bolts and concrete expansion bolts and/or welding to existing channel. The installation of the block wall support varies with each location depending on local interferences such as channel, plate or existing structures. Each installation follows recommended Bechtel Power Corporation installation details. The purpose of the modification is to upgrade the existing concrete block wall seismic criterion to present standards.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Replacement of Condensate Demineralizer Vessel Pressure Switches

A modification to the condensate demineralizer system was completed. The modification involved replacing the former pressure switch on the pressure vessel with a new wide range

pressure switch (0-1200 psig) and the installation of an indicator light which lights at 600 psig on the condensate demineralizer control panel.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modification of Existing and Installation of New Seismic Category I Pipe Supports and Anchors

Modifications to the pipe supports and anchors on Core Spray, Residual Heat Removal, Condensate Transfer and Storage, High Pressure Coolant Injection, Emergency Service Water, and Feedwater systems were made. The modification involved the addition of structural hanger steel and, if required, the addition of concrete expansion bolts, welds, or correction of existing welds on pipe supports. The purpose of the modification is to provide seismically qualified pipe supports for safety system piping and to bring existing hangers into design limits.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Supports for Piping Penetrating Primary Containment

Modifications were made to supports on the following at their piping systems drywell penetrations: Reactor Building Cooling Water, Chilled Water, and Compressed Air. The modification involved installing anchors, adjusting supports, the installation of structural guide material, and the deletion of some supports. The purpose of the modification is to seismically qualify the piping system at the drywell penetration.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modification to Selected Isolation Valve Cables and Control Switches

Modifications to the electrical control switches and control cables for several valves on the Residual Heat Removal (RHR), Core Spray, and Emergency Service Water systems were made. The modification involved rerouting the control cables on RHR AO-10-163A & B, Core Spray AO-3-14-15A & B, and Emergency Service Water MO-3373 and MO-3374 valves, and isolating the control switches for these valves. The purpose of the modification is to redesignate the power control cables of these valves as safeguard.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Installation of New Feeds to the Off-Gas Recombiner Control Panel

Modifications to the recombiner electrical system were made. The modification involved supplying the instrumentation for each recombiner with separate feeds and the installation of two new annunciators for the recombiner. The purpose of this modification is to eliminate the loss of feeds to the recombiner annunciators in the control room which could result in unannounced loss of both recombiners.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Inspection and Replacement of Containment Motor Operated Valve Components (Environmental Qualification)

Modifications which included the inspection of selected containment motor operated valves to determine the environmental qualification of certain components were made. The modification involved the inspection of the limit switch gear frames on MO-3-13-15, MO-3-10-18, MO-3-2-29A, MO-3-2-29B, MO-3-2-74, MO-2-10-18, MO-2-10-32, MO-2-23-15, and MO-2-2-53B, replacement of motors on MO-2-2-53A, MO-2-2-43A, MO-2-2-43B, MO-2-13-15, MO-2-12-15, MO-2-2-74, MO-3-2-53A, MO-3-2-53B, and MO-3-2-43B and the inspection of the torque switches. The purpose of the modification is to determine the environmental qualification of certain motor operated valves in containment and to replace those components which were not environmentally qualified.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modification to the Recirculation Pump Motor-Generator (MG) Set Bailey Positioner Scoop Tube Mechanical Stop Block

Modifications to the recirculation MG set Bailey positioner scoop tube mechanical stop block were made. The modification involved doubling the height of the mechanical stop. The purpose of the modification is to enable the stops to be moved without a load reduction.

It was determined that this modification did not involve an unreviewed safety question as defined in 10 CFR 50.59 (a)(2), nor did it involve a change to the Technical Specifications.

Modification to Primary Containment Isolation System (PCIS) Valve Control Circuit

Modifications to the PCIS automatic isolation valve control circuitry were made. The modification involved wiring contacts from the valve control switches to the isolation logic reset circuitry. The connection from the control switch contacts will be in series with the existing reset switch contacts and will prevent a reset signal from reaching the PCIS logic when any of the designated valve control switches are in the open position. The purpose of the modification is to prevent the resetting of the isolation logic when the control switch of any of the associated valves is in the "open" position.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Control Rod Drive Pipe Hanger Modification

Modifications to the control rod drive pipe hangers inside the drywell and outside the drywell at the penetration were completed. The modification involved adding square tubing and welding support steel around the existing matrix support for the drive water piping. The purpose of the modifications is to eliminate any overstressed members in the existing pipe support matrix during a design basis earthquake.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modification to the Effluent Radiation Monitoring Systems

A modification to the radiation monitoring instrumentation system on Unit 2 and Unit 3 was made. The modification involved installing a high range noble gas monitor in the vent stack and off-gas stack. The purpose of the modification is to comply with a requirement from the Lessons Learned Task Force on TMI to install interim high range monitoring capability at effluent release points.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

COMMON TO UNIT 2 & UNIT 3

Erection of a Torus Dewatering Tank

This modification involved erecting a 1,200,000 gallon storage tank, foundation, dike, and modification to storm drains and condensate lines. The purpose of the modification is to provide a means for storage of torus water from either unit during torus maintenance or modification.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Make Up Demineralizer Plant, Replace Pressure Controller with an Expanded Range Pressure Controller

A modification to replace the existing 0-100 psig controller PIC-0513 with a 0-200 psig controller was made. This pressure indicating controller controls valve CV-0513 which throttles demineralized water pump discharge flow to the caustic dilution water heater. Although the controller is designed to maintain system pressure at 80 psig, this pressure is frequently exceeded due to leakage or slow response of control valve CV-0513. As a result, the controller is frequently overranged. Overranging can cause instrument damage or loss of calibration. The 0-200 psig controller will prevent the instrument from being overranged while still allowing the 80 psig control setting.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modify Air Operation of Various Radwaste System Valves

A modification was performed to improve the closing of various Radwaste System air operated valves. All air operated valves in the system were controlled by two way air solenoids. Air is channeled to the valve operating diaphragm to open it against spring pressure. Valve closure is accomplised by exhausting the air on the "open" side of the diaphragm and allowing the spring to close the valve. This spring closure has been found to have insufficient force to close or to hold closed certain valves. This modification replaces two way with four way air solenoids and pipes air to both sides of the valve operating diaphragm. The valve will then be opened by air as before, but closure will be accomplished with both air and spring force instead of the spring alone. No wiring changes were needed for the new solenoids.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Replacement of Radwaste Air Operated Valve with a Different Type Valve

The replacement of Radwaste Cleanup Backwash Transfer Pump Flush Valve, (AO-3-262), with a different type valve was completed. The original Walworth 600 psig WKM, 1 1/2", socket welded globe valve has been unsatisfactory for use in this application since repairs and even replacement have failed to stop valve leakage. Valves performing a similar function elsewhere in the system are ball type valves; however, valves of this type are no longer obtainable. Instead, a Smith 600 psig 1 1/2 flanged ball valve has been used as a replacement. The Smith valve meets or exceeds the requirements of piping spec. M-300, and will use the existing air operator mechanism with an adapter plate.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Change Radwaste Control Valve to Smith Ball Valve and Add a Manual Block Valve

The replacement of Masoneilan Model 138-19 air operated block valve in the inlet to 00F89 with a Smith ball valve with a Bettis operator and the addition of a manual block valve downstream of the air operated valve was completed. This original valve allowed backflow of contaminated water into the service air system several times since its installation. The Smith valve is leak tight.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Change Diesel Generator Governors to Model EG-B10C

Woodward governors model EG-B10C were installed on all diesels to improve the reliability of the diesels and improve their start times. The Plant Operating Review Committee noted that all other nuclear plants with the same engine have the model EG-B10C governor. The majority of the work for this modification was completed in 1979, however, it was finally completed in 1980.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Relocate Control Room Fresh Air Temperature Controller

The control room fresh air steam coil temperature control was relocated from the upstream side of the steam coil to the downstream side. Relocation of the sensor now causes it to sense the variable it is controlling and has improved the temperature control.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Install Drains on Jet Compressor Steam Supply

Drains on the low point of the recombiner jet compressor steam supply lines were installed. The lack of these drains caused water to be injected into the off-gas stream when the system was started. The weting of the recombiner catalyst prevented it from functioning adequately. The drains allow manual draining of the steam lines prior to operation.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Change Chlorine Supply from a Railroad Car to One Ton Cylinders

The installation of a one ton cylinder supply system to the Chlorination System was completed. This is in place of a railroad car supply. The railroad car supply system incurs excessive demurrage charges and tank car availability problems due to low chlorine usage. The one ton cylinders are more readily available and more easily handled.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Installation of Equalizing Valve on Cardox Level Gauge Differential Pressure (D/P) Cell

A modification to the elev. 116' Cardox differential pressure cell on the tank level gauge was made. The modification involved installing an equalizing line and valve between the high and low sides of the D/P cell. The purpose of this modification is to accommodate calibration of the tank gauge.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modification to Public Address System/Evacuation Alarm System

A modification to the public address/plant evacuation system was completed. The modification involved the installation of 20 additional speakers to the PA system and the wiring of Cardox initiation warning beacons in the diesel generator compartments to the plant evacuation alarm system. This will provide a plant evacuation signal (revolving beacon) throughout all areas in the plant (especially high noise areas).

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modification of Radwaste Sludge Tank Spargers

A modification to the Radwaste System sludge tank sparger was completed. The modification involved cutting off the end cap of the existing sparger and replacing the end caps with bolted end plates. The purpose of this modification is to provide easy access to the sparger for cleaning.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modification to the Computer Room Cooling

The computer room cooling system was modified with the addition of ducting and grills in the computer room to aid in cooling the computer room during warm weather.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modification to the Cardox Tank Discharge Header

This modification involved installing a one inch test tap on the cardox tank discharge header between the manual shutoff of each tank and the selector valve. The purpose of this modification is to allow air flow testing of the cardox header for Technical Specification requirements. The modification has been performed on the Unit 2, Unit 3, and diesel generator building cardox tanks.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modification to the Fire System Pressurizing System

This modification involved installing a relief valve in the fire header near the discharge of the header pressurizing pump. The purpose of the modification is to prevent overpressurizing of the fire header.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modification to the 'D' Cooling Tower Vibration Monitor Pick-Up Arrangement

This modification involved moving the pickup to a new location on the pump shaft casing so that the pickup will be above the water line, and drilling a one inch hole to provide a drain for the pump shaft casing.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.

Modification to Fire System Header

This modification involved rearranging 6" piping in the vicinity of the Unit 3 Condensate Storage Tank and removing a post indicator valve on a section of piping presently terminated by a blank flange. The purpose of the modification is to facilitate installation of the new torus dewatering tank.

It was determined that this modification did not involve an unreviewed safety question as defined in 10CFR 50.59 (a) (2), nor did it involve a change to the Technical Specifications.