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U.S. Nuclear Regulatory Commission
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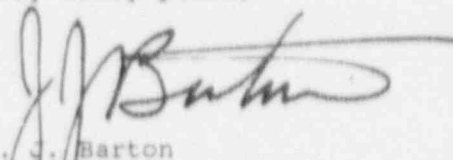
Dear Sir:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
10CFR50.59(b) Reporting Requirements

In accordance with the requirements of 10 CFR 50.59, enclosed are summaries of the changes to Oyster Creek systems and procedures, for the period January to December 1990, as described in the Safety Analysis Report (SAR). Attachment 1 of this report addresses those activities which directly affected systems/components described in the SAR. Attachment 2 of this report addresses those activities for which a GPU Nuclear safety evaluation was performed, due to the potential for the activity to adversely affect nuclear safety or safe plant operations, but which do not directly impact SAR systems/components.

If you have any questions, please contact Mr. M. W. Laggart, Manager Corporate Licensing, at (201) 316-7968.

Very truly yours,



J. J. Barton
Director, Oyster Creek

cc: Administrator, Region I
NRC Resident Inspector
Oyster Creek NRC Project Manager

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1. Modifications

Modification: Installation of Isolation Valves for Fire Diesel Pump Test Header Drain Lines (SE 323559-005, Rev. 0)

Description of Modification: The purpose of this modification was to provide isolation capability for the 3/4" drain lines from the 10" Fire Diesel Test Header during Fire Diesel Flow Testing. This isolation capability was accomplished by adding a 3/4" Globe Valve on each of the drain lines. The existing 10 inch Fire Protection test line recirculates pond water back to the pond through a hose manifold containing six 2 1/2" hose valves. The test line is used to demonstrate operability of the diesel driven fire pumps and the capability of these pumps to deliver at least 2000 GPM with a discharge pressure c. 156 psig.

The Fire Protection Water System test line is non-seismic. The system was originally designed, fabricated, installed and tested to the requirements of ANSI B31.1. The test line is only used during pump testing and is normally isolated from the remainder of the Fire Protection System by two locked closed valves (V-9-30 and V-9-31). This modification provides isolation valves for the test header drain lines so that during pump testing all flow is recorded.

Safety Evaluation Summary: Given the above design features, and coupled with the fact that operation of the Fire Protection system will not be altered, it is concluded that no safety concern exists. The margin of safety has not been reduced, nor has the probability of occurrence of an accident, or probability of a malfunction been increased by this modification.

Modification: Fire Diesels Pressure Switch/Recorder Replacement (SE 323559-004, Rev. 0)

Description of Modification: The purpose of this modification was to replace the obsolete fire diesel pressure switch/recorders FP-07 and FP-08 located in the fire diesel control panel. It was becoming more difficult to calibrate the switch/recorder to an acceptable level and since this switch/recorder is supporting Tech. Spec. equipment (i.e., the fire diesel automatic start) and spare parts are no longer available, the unit(s) had to be replaced.

Even though the original fire diesel panel was purchased to meet UL standards, Oyster Creek's commitment to comply with UL requirements was not affected to any significant degree. This is discussed further in Fire Hazards Analysis FPE-323559-004. The vendor who originally manufactured the control panel, King-Knight, is no longer in business to supply replacement parts.

Safety Evaluation Summary: The effect or consequences of previous evaluated accident or equipment malfunctions will not be affected by this modification because this modification, except for removal of the recorder function, does not change the function of the existing pressure switches/recorders or the operation of the fire diesel control cabinet.

This modification will not increase the likelihood of an accident or malfunction beyond those already postulated for the fire diesel system. The function of the fire diesel, and its control panel remains unchanged by this modification.

This modification does not reduce the margin of safety of any Technical Specification basis or safety system design associated with the Fire Protection System.

Modification: Hydrogen Water Chemistry System and Generator Cooling System
(SE 402840-001, Rev. 5)

Description of Modification: The purpose of this modification is to install a permanent Hydrogen Water Chemistry (HWC) System to mitigate Intergranular Stress Corrosion Cracking (IGSCC) in the Reactor Coolant piping.

Intergranular stress corrosion cracking (IGSCC) of austenitic stainless steel piping in BWRs has resulted in costly plant outages. One method shown effective in arresting pipe cracking and pipe crack growth is a process known as Hydrogen Water Chemistry (HWC). HWC consists of maintaining good water chemistry and adding hydrogen to the feedwater. Addition of hydrogen decreases the oxidizing power of the reactor water and reduces its aggressiveness toward plant structural materials.

Safety Evaluation Summary: This modification will provide a permanent Hydrogen Water Chemistry System to mitigate Intergranular Stress Corrosion Cracking in the reactor piping during all reactor power levels at which the system is operating. This system will provide a capability in accordance with the EPRI Report, "Guidelines for Permanent BWR Hydrogen Water Chemistry Installations," 1987 Revisions, with the exceptions as discussed within the safety evaluation, which will enhance the plant availability without any safety concerns. In addition, this modification will provide a safe and reliable supply and makeup of hydrogen to cool the main generator.

This modification does not involve an unreviewed safety question or environmental impact.

Modification: Fire Protection System Flow Meter Modification
(SE 402889-004, Rev. 0)

Description of Modification: The purpose of this modification is to provide local flow measurement capability to aid in testing of the diesel driven fire pumps (P9-102 A/B).

This modification will aid in conducting fire pump surveillance testing to preserve the GPUN commitment for testing of these pumps as required by (1) the Oyster Creek Plant Technical Specifications and (2) the ASME Boiler and Pressure Vessel Code, Section XI.

Presently flow measurement is conducted by a hand held Pitot tube. This modification installs a permanent flow measuring device within the test line of the Fire Protection Water System.

Safety Evaluation Summary: Given the design features, and coupled with the fact that operation of the test line will be no different from past operation, it is concluded that no safety concern exists. The margin of safety has not been reduced, nor has the probability of occurrence of an accident, or probability of a malfunction been increased by this modification. This modification replaces the hand held method of flow measurement for the Fire Protection System test line with a permanent flow measuring device with local indication. The modification does not impact nuclear safety, nor increases the probability of an accident, nor increase the probability of a malfunction of equipment.

Modification: Installation CNSI Batch Tank (SE 312100-001, Rev. 0)

Description of Modification: This mini-mod document allows the Chem-Nuclear Technicians, under the directions of Group Radwaste Shipping Supervisors, to install a batch tank and hook it up to their current plant connections. The plant hook up is already approved for use by the CNSI fill head. The purpose of the batch tank is to allow more flexibility for the CNSI Technicians in supporting the needs of Rad Waste Operations. A second major purpose of the batch tank is for ALARA. By using the batch tank less moves of the fill head will be needed, thereby reducing the overall exposure to the CNSI Technician.

Safety Evaluation Summary: The implementation of this document will not adversely affect nuclear safety or safe plant operations because the function of the system has not changed. The margin of safety as defined in the basis for any Technical Specification has not been reduced because the system has no safety function. Also, the limiting conditions of operation for the Solid Radioactive Waste System as described in the Technical Specification are not affected by this document.

Modification: Installation of Test Plugs and Test Terminals for Isolation Condenser Valves V-14-33 and V-14-35 (SE 323560-001, Rev. 1)

Description of Modification: This modification eliminates lifting jumper links for bypassing the overload and/or placing the overload relay in the circuit while performing surveillance on the motor operated valves V-14-33 and V-14-35 in the Isolation Condenser System. This modification will allow the plant electricians and technicians to place or bypass the motor operated valve thermal overload in the main circuit without disturbing the original designed circuit terminations.

Safety Evaluation Summary: This modification provides a capability to perform surveillance testing on Isolation Condenser Valves V-14-33 and V-14-35 without lifting jumper links. This modification will not alter designed functions of the Isolation Condenser System. This modification will minimize the possibility of human error when performing the related surveillance.

This modification does not constitute an unreviewed safety question. There is no environmental impact due to this modification and there are no changes required to the Technical Specification.

Modification: Elimination of Jumper Installation in Exhaust Fan EF-1-5 Control (MCC Cubicle) Circuit (SE 323560-005, Rev. 0)

Description of Modification: The purpose of this modification is to eliminate the use of an electrical jumper in the control circuit of exhaust fan EF-1-6 whenever the breaker for exhaust fan EF-1-5 is racked out and to maintain the original designed redundancy of the circuit. This jumper allows exhaust fan EF-1-6 to trip when the Standby Gas Treatment System is activated.

Present design of the trip circuit for the exhaust fan EF-1-6 is such that it uses only a 52 breaker contact off the exhaust fan EF-1-5. Whenever the breaker for exhaust fan EF-1-5 is racked out, an electrical jumper has to be installed in Control Room Panel 11R between Terminals AA-48 and AA-56 (Ref. Connection Diagram Panel 11R GE 719E207) to allow exhaust fan EF-1-6 to trip when the SGT System is activated and the exhaust fan EF-1-7 is running.

Safety Evaluation Summary: This modification provides a capability to rack out exhaust fan EF-1-5 breaker from service without affecting performance of exhaust fan EF-1-6 of Rx. Bldg. Ventilation System. This modification will not alter designed functions of the Rx. Bldg. Ventilation System. This modification will eliminate installing electrical jumper in the control circuit of exhaust fan EF-1-6 whenever the breaker for EF-1-5 is racked out. This modification does not constitute an unreviewed safety question. There is no environmental impact due to this modification and there are no changes required to the Technical Specifications.

Modification: Augmented Off Gas Panel EE-08-1 Recorder Upgrade (SE 408773-006)

Description of Modification: This modification replaces certain existing AOG recorders, located on panel EE-08-01, with new recorders that will minimize problems of calibration and maintenance. The existing recorders are prone to failure and the parts necessary to maintain them are hard to obtain or not available at all.

Safety Evaluation Summary: The effect of consequences of equipment malfunctions will not be affected by this modification because this modification does not change the function or failure mode of the existing chart recorders.

This modification will not increase the likelihood of an accident or malfunction beyond those already postulated for the Augmented Off Gas System. The functions of the recorders replaced by this modification will be unchanged, and the likelihood of an accident or malfunction should be unchanged.

This modification does not reduce the margin of safety of any technical specification basis or safety system design associated with the Augmented Off Gas System. This modification only addresses strip chart recorders which are not required for Tech. Spec. compliance.

This modification will not involve/create any non-nuclear environmental impact. These recorders do not have any environmental impact what-so-ever either nuclear or non-nuclear.

Modification: Refueling Platform Replacement (SE 408788-001, Rev. 3)

Description of Modification: The overall replacement refueling platform height, width and rail span are comparable to the existing bridge. The weight of the new bridge, approximately 47,000 pounds, is greater than the existing bridge weight. In addition, the existing 30-pound rails have alignment and levelness deficiencies described in GE Safety Evaluation of Refueling Platform, GE Nuclear Energy PCE-02-1089, dated October 1989. The existing rails will be replaced with 60-pound rails with mounting adjustments provided to correct the deficiencies.

Safety Evaluation Summary: This modification does not violate any existing license requirements or regulations. The only design change of significance is the additional weight of the NF500 mast relative to the current mast. The proposed replacement of the refueling platform satisfies the requirements of 10CFR50.59. The change in the refueling mast design will not involve a significant increase in the possibility or consequences of an accident previously evaluated. The NF500 mast is designed to match or exceed all aspects of the mast now in use. The probability of failure of the NF500 and of the existing mast are both judged to be very small. In addition, the consequences of a Fuel Handling Accident using the assumptions contained in the Oyster Creek FSAR are not changed, and are independent of the mast design in current use.

The change in the refueling mast will not create the possibility of a new or different kind of accident from any accident previously evaluated. The NF500 mast is similar enough in design and function to the existing mast so as not to create the possibility of a new or different kind of accident. Using the new mast does not involve a reduction in a margin of safety. The setpoint changes allow for the increased weight of the new mast, i.e., the difference between the new setpoint and the weight of the NF500 mast is approximately the same as the difference between the current setpoint and the weight of the existing mast. Although the new setpoint exceeds the weight of the fuel assembly, the interlock will be initiated due to the total weight of fuel, grapple and mast section being greater than the revised set point.

It is concluded that the proposed refueling platform retrofit will not result in an unreviewed safety question as defined in 10CFR50.59 and that the proposed replacement can be made under the provisions of 10CFR50.59.

Modification: Removal of Hydrogen Generator Cooling Supply Facility
(SE 402909-001, Rev. 0)

Description of Modification: The purpose of this modification was to remove the hydrogen bottle storage facility located in the yard near the south wall of the turbine building. These bottles currently supply hydrogen for generator cooling. As part of a separate modification, hydrogen for generator cooling will be supplied from the bulk hydrogen facility installed as part of the Hydrogen Water Chemistry System. The new supply facility will render obsolete the existing hydrogen bottles along with the fire protection deluge system and fire detection system associated with the hydrogen protection deluge system No. 1 which also protects the Main Transformer 1A, Auxiliary Transformer and Main Generator Bus Penetration. This modification will remove only the portion of the deluge system associated with the hydrogen bottle storage racks. The modification also includes removing the four thermal fire detectors located above the hydrogen bottle storage racks.

Safety Evaluation Summary: The removal of the hydrogen bottles and associated fire protection/detection systems does not create a possibility for an accident or malfunction of a different type than any previously identified in the SAR as we are removing a portion of the fire protection/detection system along with the hazard for which the system was installed.

The margin of safety, as defined in the basis for any Technical Specification, has not been reduced, because the portion of the fire protection deluge system No. 1 being removed and the fire detectors being removed are not included in any Technical Specification as equipment which must be operable. The removal of the hydrogen bottles and associated fire protection/detection systems will not violate any plant Technical Specification or other license requirement or regulation. The removal of the hydrogen bottles and associated fire protection/detection systems will not have any impact on the level of fire protection afforded to the other components protected by the fire protection deluge system No. 1. This modification will improve safety by the removal of an unnecessary fire hazard.

Modification: Retirement of Makeup, Condensate Demineralizer, and Pretreatment System (SE 402885-002, Rev. 1)

Description of Modification: The purpose of the modification is to retire the regeneration capabilities of Condensate Demineralizer System and those portions of the Pretreatment and Makeup Demineralizer Systems not required to support the new Pretreatment Demineralizer Mobile Trailer System. The scope of this modification excludes the equipment already added or deleted under GPUN Installation Specifications OCIS-402885-001 and OCIS-402885-002 and is covered in SE-402885-001.

Safety Evaluation Summary: The addition of packaged water treatment equipment and subsequently retirement of some existing equipment as described in this modification will improve the performance of the existing makeup water systems without creating an unreviewed safety question or increasing the potential environmental impact. The modification does not involve or interface with any safety related system. The modification described in SE 402885-001 and this safety evaluation will produce an overall reduction in waste discharged by the original system design.

Modification: Isolation Condensers Local Level Indication Gauges
(SE 402871-015, Rev. 0)

Description of Modification: The present isolation condenser level control system does not have a local level indicator which will aid when adding make up (demineralized water) via the grab sample line. At one time, a Tygon Tube was installed to provide level indication but has been removed. This modification will allow the makeup to be added utilizing the local level indicator and thereby eliminating the checking of the level with the Control Room and requiring an operator's time. Since this gauge will be connected and mounted adjacent to the existing safety related instrument components, this modification will be seismically supported and is classified as "Regulatory Required".

Safety Evaluation Summary: Since this modification is connected to the three valve manifold vent valve, which will remain closed except when adding make-up via the grab sample line, this modification will be seismically supported and classified as "Regulatory Required". The purpose of this modification is to provide local indication of the water level in the isolation condensers and thereby eliminate involving Control Room personnel while adding demineralized water make up via the grab sample line. This modification is classified as "Regulatory Required". This modification does not reduce the margin of safety or increase the probability of an accident or the possibility of an accident not previously defined.

Modification: Water Chemistry Monitoring System (SE 402763-001, Rev. 2)

Description of Modification: The purpose of this Water Chemistry Monitoring System modification is to provide upgraded capability to take liquid samples for laboratory and/or inline water chemistry analysis as a basis for control of the reactor water chemistry with improved accuracy, reduced radiological exposure to chemistry personnel, and ease of taking the required samples.

This will be accomplished with the addition of a Reactor Water Sample Station (RWSS) and an Electro-chemical Corrosion Potential Monitoring System (ECPMS) in addition to the existing reactor water sampling sink, the addition of inline monitors to supplement grab samples taken at the existing Feedwater Sample Sink (FWSS) via a final Feedwater facility and the upgrade of existing metals samplers at both the Condensate Sample Sink (CSS) and FWSS.

Safety Evaluation Summary: This modification will provide a Reactor Water Sample Station designed to permit the continuous monitoring and periodic grab sampling of reactor water and will add monitoring capabilities for the Feedwater Condensate System to improve key chemistry parameter monitoring while maintaining radiological exposure to personnel ALARA.

This Water Chemistry Monitoring System upgrade will assure representative and useful samples, minimize lab analysis time, improve accuracy using inline instrumentation and reduce radiological exposure to chemistry personnel.

In addition, this modification will provide an Electro-chemical Corrosion Potential Monitoring System to indicate reactor water chemical conditions conducive to IGSCC so that mitigating corrections can be made.

This modification is not required for plant safety and will be designed and constructed in a manner which will have no adverse affect on plant safety. Therefore, the modification does not result in an unreviewed safety question or environmental impact.

Modification: Repaired Transformer M1A Installation and Reconnection
(SE 992100-002, Rev. 0)

Description of Modification: The purpose of this modification is to reconnect the repaired main transformer M1A to the 23KV isolated phase bus and various plant auxiliary systems. This modification will also be utilized to rearrange wiring and cabling within the junction box (TB# 37-4) located at the south-end of the 1C Condenser Bay in order to terminate auxiliary transformer differential CT cable, main transformer neutral CT cable, main generator CT cable, and 230KV bus differential CT cable in a new junction box located near the M1A transformer to facilitate testing by JCP&L.

Safety Evaluation Summary: This modification installs the repaired main transformer M1A. In this mode of operation, the plant on-site electrical distribution system remains powered from the main generator via the Unit Auxiliary Transformer in the same manner and extent as the original plant design. There is no change to the operation of plant safety systems, Technical Specification requirements and limits or adverse impact on the plant environment. No experiments or tests are performed, which would adversely affect the plants safety. Hence, this modification to install the repaired main transformer M1A does not affect the margin of safety or create an unreviewed safety question as described under 10CFR50.59.

Modification: Cable Spread Room Deluge System # 4a Mod.
(SE 000811-008, Rev. 0)

Description of Modification: MNCR 87-132 identified portions of cable trays 15, 16, 19 and 20 in the lower cable spread room which were not adequately covered by direct water spray. Therefore, to supply the required coverage a modification was done to include full spray coverage on the trays.

Safety Evaluation Summary: This modification adds direct water spray coverage on previously uncovered sections of cable tray 19 and 20 in the Cable Spread Room. This modification will not adversely impact the plant fire protection system and will not require changes to licensing basis documents. Also, safety as defined in licensing basis documents will not be reduced.

Modification: 30" Overboard Discharge Sample Point (SE 328153-002, Rev. 1)

Description of Modification: The purpose of this modification is to provide a 3" stand pipe with threaded cap end into the existing 30" overboard discharge as a sample port to facilitate grab type sampling activities. A portable pump will be used to withdraw samples.

The reason for this modification is to provide a safe place for personnel to take grab type samples. Without this modification, grab samples will have to be taken at the outlet of the 30" overboard discharge. Personnel must walk approximately 150 ft. along a 24" to 30" semi-paved area outside the protected fence to reach the discharge in order to take the sample. The sample is taken by lowering a bucket tied to a rope into the discharge. At this point personnel are kneeling on a piling directly over the canal. When the walkway is covered with snow and ice, it is possible for personnel to fall into the water. This is considered to be a hazard which is likely to cause death or serious physical harm. Therefore, this modification increases the safety margin for the personnel.

Safety Evaluation Summary: This modification is Not Important to Safety, there are no seismic requirements for the system, and there are no quality assurance requirements for this modification.

II. Temporary Variations

Modification: Temporary Demineralizer System (SE 312100-003, Rev. 0)

Description of Modification: A Temporary Demineralizer System was to be installed at Oyster Creek to process water collected in the Chem Waste/Floor Drain Collection Tanks, WC-T-1A/B/C, in lieu of using the Radwaste Concentrators, WC-E-1A/B. The initial Demineralizer System is expected to be in operation for 2-5 years.

Safety Evaluation Summary: The plant margin of Safety is not reduced by use of this system because the demineralizer system does not affect any system associated with technical specifications defined margins of safety. Nuclear safety and safe plant operation are not adversely affected. There is not an increase in the probability of consequences of an accident previously evaluated in the SAR. Important to safety equipment is not adversely affected. The system does not create an accident or malfunction of a type previously identified in the SAR. No Technical Specifications or other license based document is violated. No radiological safety concern exists.

Use of this system complies with the intent of Reg. Guide 1.143 to "...provide reasonable assurance that...radioactive waste management...systems are designed, constructed, installed and tested on a level commensurate with the needs to protect the health and safety of the public and plant operating personnel.

Modification: Installation of a Gag for Valve V-1-151 (TV 89-29)

Description of Modification:

This temporary variation installed a gag on valve V-1-151. This valve is the inlet valve for the Condensate Deaeration Steam into the "B" Condenser. The system is designed to be used to assist in the deaeration process when the hotwell condensate is below saturation temperature. The purpose of the gag is to prevent leakage. The system is not used during plant operations.

Safety Evaluation Summary:

This temporary installation did not affect a safety related system and is not related to any equipment important to safety as evaluated in the SAR. The installation of this temporary modification did not create the possibility for any accident or malfunction of any kind previously evaluated.

Modification: Replacement of Existing Breaker with UV/Breaker
(TV 90-13 & 90-14)

Description: Remove the leads supplying power to the UV device so that the entire UV device may be removed from this breaker. This breaker will be reinstalled in the cubicle E05 of the MCC 1B21.

Safety Evaluation Summary: This component load will add additional load which will not affect the DG-2 loading during loss of offsite power per technical evaluation performed by Technical Functions. Additional loading on DG will not affect the performance of DG per technical evaluation performed by Technical Functions (EP&I). Addition of this load on DG will not overload the DG, during loss of offsite power and shall not cause any accident or malfunction. Due to diesel generator #2 additional loading, the performance of DG-2 will not be altered and thus margin of safety is not reduced.

Modification: Dilution Pump Spray Header Connection to the High Pressure Screen Wash System (TV 89-84)

Description: Due to excess foaming in the dilution pump discharge channel, a spray header is required to collapse the foam bubbles prior to their passage down the discharge canal. The installation will be temporary in nature and will involve 2" PVC pipe with spray nozzles positioned every two feet which will provide an overlap of the spray pattern along the entire length of the header. The supply line consists of 1" PVC hose, a basket strainer, isolation and drain valves which will prevent clogging of the nozzles and provide throttling ability. The 1" hose will be connected to the high pressure spray wash header drain valve V-3-43 via a dual garden hose adapter. The foam spray header and a majority of the supply hose is located outside of the protected area and does not have any effect on plant systems except the high pressure screen wash system and the effect on the system is addressed separately. The drain header is also utilized as a wash down station which uses a garden hose. Because of the dual wire connection, the foam spray header connection will not interfere with the ability to use the wash down station.

Safety Evaluation Summary: The high pressure screen wash system is classified as "other" and provide no safety functions. The system is operated manually and is normally used during plant operations. The system normally requires QA/QC involvement, but the nature of the installation does not require QA/QC review because of the temporary connection and operation of the header will be controlled outside of the protected area. Following monitoring and adjustment to the system, a submersible pump will be added to enable removal of the line from the HPSW system.

The system will be placed into operation by opening V-3-43 and will be controlled at the spray header by throttling a valve installed at the inlet to the spray header. In the event of a leak in the line during operation of the header, the line can be readily isolated via V-3-43.

III. Procedure Changes

Procedure: Special Operation for Control Rods 14-47, 34-03, 34-31 and 42-31

Description of Change: The purpose of the above procedure change was to address the operability of four control rods which have withdrawal stroke times that are outside the acceptance criteria of Oyster Creek Procedure 235. These control rods are: 34-03, 14-47, 34-31 and 42-31

These control rods have improved withdrawal stroke times when withdrawn with the 104 valve isolated. The following procedure will be evaluated for operation of these rods:

1. The 104 valves shall be closed for rod withdrawal out to notch 48.
2. For reactor startups, the 104 valves will be closed when startup commences and will remain closed until the rods reach position 48, at which time the valves shall be opened. This period of time should not normally exceed 96 hours.
3. During steady-state operation, where withdrawal of these rods is not anticipated, the 104 valves shall normally be maintained open.
4. For weekly CRD exercises it will not be required to close the 104 valves for these rods.
5. For a shutdown, it will not be required to close the 104 valve prior to rod insertion. However, for power maneuvering which requires insertion of these rods (and subsequent withdrawal is possible), the 104 valve shall be closed prior to insertion.

Safety Evaluation Summary: This operation will not increase the probability of occurrence or consequences of an accident or malfunctions of equipment. The operation of these control rods with the specified procedure will produce acceptable withdrawal speeds and will not result in significant damage to the drive. Therefore it does not create the possibility for a new or different type of accident or malfunction that has already been evaluated. This operation will not reduce the margin of safety as defined in the basis for any technical specification. The operation of control rods 34-03, 14-47, 34-31 and 42-31 with the specified procedure in effect will result in acceptable stroke times for withdrawal and will not reduce the margin of safety as defined in any licensing basis document. This procedure will not result in significant degradation of control rod drives. Therefore, this operation will not adversely affect nuclear safety or safe plant operations. It does not involve an unreviewed safety question. Finally, there are no technical specification changes required to implement these procedures.

Modification: Chlorination System Upgrade (SE 402792-001, Rev. 1)

Description of Modification: The modification provides a sodium hypochlorite storage and feed system to replace the existing Fischer & Porter liquid chlorine gas system. The primary purpose of the chlorination system is to control biofouling on the heat transfer surfaces of equipment cooled by the circulating, service, and emergency service water systems. The radwaste service water chlorination package is not affected by this modification.

The purpose of the modification was:

- o To provide increased chlorination capacity, necessitated by new requirements imposed by the N.J. Department of Environmental Protection with regard to allowable chlorination periods.
- o To eliminate the potential hazard of a chlorine gas release adversely affecting personnel and operations.
- o To increase system availability and reliability by reducing downtime caused by mechanical breakdowns, corrosion-related failures, and lack of replacement parts availability, and by providing capability of wintertime operation.

Safety Evaluation Summary: The chlorination system and other affected systems that have no safety functions, are not required for safe shutdown of the reactor, and are not required to mitigate the consequences of postulated accidents. The chlorination system interfaces with the Emergency Service Water System (the only affected NSR system) only when the system is not operating. Therefore, this modification will not increase the probability of occurrence or the consequence of an accident or malfunction in relation to the Emergency Service Water System, since the effect of chlorination will remain the same by using sodium hypochlorite instead of chlorine. The modification does not affect any of the existing interfaces between the chlorination system and the Emergency Service Water or Service Water Systems. In the unlikely event of total failure of one or both hypochlorite storage tanks, or associated piping, with a resultant spill of tank contents to the environment, there would be no adverse impact on the operation of the Emergency Service water pumps at the intake structure, but the maximum volume of chemical relative to the travel distance and other factors is such that the emergency equipment could not be flooded or otherwise rendered inoperative due to this postulated release. The condensate storage tank, adjacent to the hypochlorite storage tanks, is a nonseismic tank of far greater size and volume. The flooding impact of hypochlorite storage tank failure would be minor compared to condensate storage tank failure. The proposed modification will not have any adverse effect on the nuclear safety or the environment. This modification does not create an unreviewed safety question as described in 10CFR50.59.

Modification: Off-Gas Sample Flow Transmitter (SE 408758-002, Rev. 0)

Description of Modification: This modification consists of replacing obsolete GE/MAC transmitter RN-55 with Rosemount transmitter. It is classified as replacement-in-kind in accordance with Corporate Procedure 1000-ADM-7350.01 (EMP-019). RN-55 is part of the Off-Gas Radiation Monitoring system. Its function is to monitor the flow of off-gas sample through radiation monitor and to provide input signal to recorder RN-35 (panel 10F, red pen) for recording and annunciation purposes: window 10F-4-C, "Off-Gas Sample Flow LO".

Safety Evaluation Summary: This modification consists of replacing obsolete GE/MAC Transmitter RN-55 with Rosemount Transmitter. This modification shall not affect safety or health of the general public or have an environmental impact. This modification does not constitute an unreviewed safety question as determined by 10CFR50.59.

Modification: Office Building Elevator UV Trip Device and Circuit (SE 328184-008)

Description of Modification: This modification addresses the safety concern of personnel being trapped in the office building elevator during a power loss. This modification consists of an addition of a new relay and the interchange of the existing breaker with one which does not contain an undervoltage trip device. This will permit depressurizing the elevator's hydraulic system, lowering the elevator and opening the doors at the ground floor with minimal power consumption.

Safety Evaluation Summary: This modification enables the elevator to lower to the bottom floor and open its doors during an offsite loss of power. Its only effect is a small addition to the diesel generator load used to energize the necessary relays. This load has been evaluated as an acceptable additional load. The modification will not violate any regulations and does not degrade safe operation of the plant.

Modification: Permanent Shielding at Spent Fuel Pool Gate (SE 402912-001, Rev. 0)

Description of Modification: The purpose of this modification was to reduce the radiation level in the spent fuel pool gate area on elevation 119'3" and on the refueling bridge in the reactor building. When moving fuel in the spent fuel pool near the gate, a lockable high radiation area is created on the floor in the vicinity of the gate; high radiation area is also created on the refueling bridge. It is anticipated that the problem will become more severe, when row A of rack F (closest to the gates), now empty, is filled with spent fuel.

This shielding will reduce the radiation field in the affected area by approximately a factor of 3.2.