New Hampshire Yankee
March 31, 1992

ENCLOSURE 1 TO NYN-92041

Report of Facility and Procedure Changes Made at Seabrook Station
Pursuant to 10CFR50.59
for the Period
April 1, 1991 - December 31, 1991

TABLE OF CONTENTS

1. Design Modifications

The following design modifications were implemented at Seabrook Station pursuant to the requirements of 10CFR50.59.

DESIGN COORDINATION REPORT: Number 86-024

TITLE: Reactor Coolant Pump (RCP) Motor Lifting Rig

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) provided the engineering basis to utilize on a permanent basis the Reactor Coolant Pump (RCP) motor lifting rig which was utilized during initial plant construction. The entire rig was evaluated against the NHY commitments made in response to NUREG-0612, Revision 2 (Control of Heavy Loads). As a result of this evaluation, slings, shackles and turnbuckles associated with this rig were upgraded to meet the guidelines of NUREG-0612, Revision 2. The DCR also corrected incompatibilities with the dimensions of the slings, shackles and turnbuckles.

PURPOSE: This DCR ensured that the RCP Motor lifting rig could be used with irradiated fuel in the reactor vessel without violating Operating License requirements or compromising NHY commitments.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that this DCR did not make changes in the facility as described in the FSAR. However, as a conservative measure, a safety evaluation was performed. The safety evaluation determined that certain revised dimensions did not reduce the required safety factors of the rig and that no safety related equipment was relocated. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

DESIGN COORDINATION REPORT: Number 86-036

TITLE: Steam Generator (SG) Primary Manway Studs

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) replaced the bolts with studs as the SG primary manway cover fasteners. The studs will be installed and removed using a multi-stud tensioning tool.

PURPOSE: This DCR was implemented to benefit from the many advantages of using studs versus bolts as SG manway cover fasteners. Time to install and remove the manway is greatly reduced. A 4.8 man-rem dose savings per manway cover removal or installation is expected. Fastener preload and gasket compression are more uniformly applied, thus minimizing the potential for leaks. Stud tensioning avoids turning and torquing fasteners under high load, reducing the potential for thread seizure. Studs with tighter thread design tolerances can be used, further reducing the potential for thread seizure.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the FSAR was not directly effected in that the text, figures and tables in the FSAR did not require changes. The safety evaluation determined that the SG manway cover studs are Safety Class 1 components. The studs meet the original design requirements of the bolts. The stud threads will exceed the tolerances requirements of the bolts. The use of studs will produce a significant dose savings and reduce the potential for manway cover leakage when installed. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

DESIGN COORDINATION REPORT: Number 86-163

TITLE: Replacement of 4" Diaphragm valves in the Spent Fuel Pool Cooling and Cleanup System

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) replaced two 4 inch diaphragm valves originally installed in the drain line of the reactor cavity cleanup section of the Spent Fuel Pool Cooling and Cleanup (SFP) System. The replacement valves were plug valves. The DCR also provided the engineering basis to revise the Normal-Condition I maximum temperature value of the Reactor Cavity Cleanup System from 125 degrees F to 140 degrees F and to upgrade the frequency of occurrence of a refueling loss of cooling event from Upset Condition II to Emergency Condition III.

PURPOSE: The two 4 inch diaphragm valves originally installed in the drain line of the reactor cavity cleanup section of the SFP System were replaced based on ALARA considerations. Operating experience at other plants indicated that diaphragm valves in this application were likely to create crud traps causing high radiation dose rates. The other changes resolved discrepancies between the system design basis and applicable design standards.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the DCR made changes in the facility as described in the FSAR. The safety evaluation determined that the Reactor Cavity Cleanup System is non-nuclear safety class/seismic Category I except for the Containment penetration piping which is Safety Class 2/Seismic Category I. The replacement plug valves were evaluated to be equivalent substitutes for the diaphragm valves. The updated design calculations are conservative and consistent with Technical Specifications. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

FCR 90-033

DESIGN COORDINATION REPORT: Number 86-210

TITLE: Spent Fuel Pool Level and Leakoff Sump Level Modification

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) replaced the existing ultrasonic level measuring system for the Spent Fuel Pool with a capacitance-type system. The replacement system provided narrow range monitoring of a narrow band around the normal water level. The DCR also relocated the spent fuel leakoff sump level switch.

PURPOSE: The existing SFP level measuring instrument failed to maintain the required accuracy and physically interfered with SFP bridge crane operation. The spent fuel leak off sump level switch was inaccessible when sump water level was high. The objective of the DCR was to improve the accuracy of the Spent Fuel Pool level measurement with equipment that is more accessible and does not interfere with operation of the SFP bridge crane. This DCR addressed the recommendations of NRC Information Notice 88-65.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the DCR made changes in the facility as described in the FSAR. The safety evaluation determined that the design changes do not affect the safety functions of the structures, systems or components associated with the cooling of spent fuel. The changes enhance existing design by improving instrument accuracy and removing interference with bridge crane operation. The reduction in the indicating range of the SFP level instrument was evaluated to be acceptable with respect to Technical Specification action requirements. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

FCR 90-019

DESIGN COORDINATION REPORT: Number 86-227

TITLE: Relocation of Bulk Hydrogen Storage Facility

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) installed an upgraded version of the originally-designed bulk hydrogen storage facility. The facility consists of two mobile tube trailers located northwest of the Unit 2 Turbine Building, a regulating station and distribution piping. The DCR used equipment and previously-installed piping which were part of the original bulk storage facility. (The original bulk storage facility was abandoned in a partially-completed state during initial construction. Hydrogen bottles stored in racks in the Turbine Building and the Waste Processing Building were the alternative source of hydrogen gas.) The DCR also converted an unused hydrogen header in the Administration Building to an argon gas header, and made miscellaneous other changes.

PURPOSE: The bulk hydrogen storage facility was installed primarily to eliminate the handling and movement of hydrogen bottles. The conversion of the unused hydrogen header to an argon header resolved an unsafe condition regarding storage of argon gas bottles in the Chemistry Laboratory Mechanical Room.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the DCR made changes in the facility as described in the FSAR. The safety evaluation determined that the affected piping and equipment is designated non-nuclear safety class and met the requirements of applicable design codes and standards. Major equipment, such as the bulk storage trailers, were the equipment originally-purchased for this application. Other equipment added or upgraded met applicable requirements. Conversion from bottled hydrogen storage to bulk hydrogen storage did not affect the systems which use the hydrogen. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

FCR 90-85

DESIGN COORDINATION REPORT: Number 86-228

TITLE: Main Control Board Meter Banding

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) added pressure sensitive, graphic tape to meters on the Main Control Board. The graphic tape contains "bands" indicating parameter limits and normal operating points. The DCR also relocated a fire panel alarm horn.

PURPOSE: This DCR resolved human engineering deficiencies identified in the Control Room Design Review. The intent of the bands was to indicate when the parameter was out of its full power value or range.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the FSAR was not directly affected in that the text, figures and tables in the FSAR did not require changes. The safety evaluation determined that the pressure sensitive tape would not affect the proper operation of the meter. The relocated fire panel horn would be more audible and would not affect the proper operation of other Control Room equipment. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

DESIGN COORDINATION REPORT: Number 86-238

TITLE: Addition of Check Valve to Refueling Cavity Drain Piping

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) added a check valve to the refueling cavity drain line to the Floor Drain Tank.

PURPOSE: Addition of a check valve to this refueling cavity drain line prevents possible contamination of reactor coolant water during refueling by preventing backflow of water containing oil or chemicals from the Floor Drain Tank to the refueling cavity.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the DCR made changes in the facility as described in the FSAR. The safety evaluation determined that the refueling cavity drain line is part of the non-nuclear safety, Seismic Category I Reactor Cavity Cleanup System. The system is used only during refueling shutdown plant conditions. The added check valve meets or exceeds the design requirements of the original system. The safety evaluation concluded that the DCR did not involve an unreviewed safety question.

FCR 90-049

DESIGN COORDINATION REPORT: Number 86-239

TITLE: Residual Heat Removal (RHR) Autoclosure Interlock Removal

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) removed the design feature of the RHR System motor-operated suction isolation valves which causes automatic valve closure on high pressure. Redundant RCS high pressure alarms were also deleted.

PURPOSE: Removal of the automatic closure feature eliminated the potential for spurious closure of the RHR System suction isolation valves. Spurious isolation of the RHR suction isolation valves could contribute to Reactor Coolant System (RCS) overpressurization as a result of loss of RHR cooling and isolation of the RHR System relief valves from the RCS.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the DCR made changes in the facility and in the procedures as described in the FSAR. It also determined that a change to the Operating License was required. The safety evaluation determined that the DCR did not involve an unreviewed safety question.

FCR 90-090

DESIGN COORDINATION REPORT: Number 86-355

TITLE: Reserve Auxiliary Transformer (RAT) Disconnect Switches and Sulphur Hexaflouoride (SF6) Bus Replacement

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) replaced the bus duct segments of the SF6-insulated bus system in Gas System Zone #2 (GS#2) with Asea Brown Boveri (ABB) bus duct segments. It also added ABB disconnect and ground switches to GS#2 near the RATs.

PURPOSE: Replacement of the GS#2 bus duct segments with segments manufactured by ABB resolved reliability concerns with the replaced bus duct segments. The addition of the disconnect and ground switches to GS#2 permits isolation of one RAT for testing or in the event of its failure while the other RAT remains energized.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the DCR made changes in the facility as described in the FSAR. The safety evaluation determined that the replacement bus duct segments in GS#2 would have a very low failure rate, and thus improve the reliability of offsite power. The replacement equipment conforms to applicable design criteria. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

FCR 90-126

DESIGN COORDINATION REPORT: Number 86-447

TITLE: Primary Component Cooling Water (PCCW) Chemical Addition

SUMMARY DESCRIPTION: PCCW System coolant chemistry is maintained by periodic, manual additions of hydrazine to the PCCW head tanks. This Design Coordination Report (DCR) provided permanently installed tubing and valves to facilitate the addition of hydrazine to the head tanks from the mezzanine platform, elevation 65' 9" of the Primary Auxiliary Building (PAB) using a portable pump.

PURPOSE: By providing permanent tubing and valves, this DCR facilitated a safer method of adding hydrazine to the PCCW head tanks. The former method required personnel to climb on equipment at unsafe heights within the PAB to install temporary tubing each time a chemical addition was needed. Therefore, this DCR eliminated personnel safety concerns.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the DCR made changes in the facility as described in the FSAR. The safety evaluation determined that the DCR would not affect the reserve coolant volume of the PCCW System and would not, therefore, affect the cooling capability of the PCCW System. The permanent tubing conforms to applicable Code requirements and does not affect the previously-plugged connection point to the head tanks. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

FCR 91-070

DESIGN COORDINATION REPORT: Number 86-554

TITLE: Containment Enclosure Ventilation Area (CEVA) Test Connections

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) provided test connections accessible outside the CEVA for measuring negative pressure at ten different locations inside the CEVA. Instrument tubing screened on the inside and capped on the outside was installed to provide a permanent location to measure differential pressure and thus determine the negative pressure of the CEVA at the sampled location.

PURPOSE: The DCR was implemented to provide a permanent penetration from which to measure CEVA pressure at ten different locations. The DCR eliminated the need for repeated entries into the CEVA during the conduct of the 18 month surveillance test of CEVA negative pressure produced by the Containment Enclosure Ventilation System.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the DCR made changes in the facility as described in the FSAR. The safety evaluation determined that the test connections do not interact with or affect the function of the Containment Enclosure Ventilation System. The integrity of the CEVA penetrations through which the test instrument tubing is installed is maintained by the use of seismically qualified supports and quality tubing. Leak tightness of the CEVA is maintained by caps on the outside of the instrument tubes. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

FCR 91-014
FCR 91-056

DESIGN COORDINATION REPORT: Number 86-634

TITLE: Primary Drain Tank (PDT) Pressure Transmitter Rescale/Heat Tracing of SB and BRS Instrument Lines

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) replaced the pressure transmitters for the Primary Drain Tanks (PDTs), which had an indicating range between 0-35 psia. It also revised the heat tracing for instrument tubing in the Boron Recovery (BRS) System and the Steam Generator Blowdown (SB) System. The DCR also deleted the requirement for heat tracing of certain instrument tubing in which the boron concentration is sufficiently low that precipitation without heat tracing will not occur.

PURPOSE: The replacement PDT pressure transmitters have an indicating range between -5 and +15 psig. The revised range will provide more useful indication of tank internal pressure relative to atmospheric pressure to help prevent tank damage due to internal vacuum. The revised heat tracing corrected an improper heat tracing installation which covered the instrument diaphragm seal and part of the capillary tubing.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the DCR made changes in the facility as described in the FSAR. The safety evaluation determined that the PDT pressure transmitter rescaling did not change the BRS System design and was a human factors improvement. The heat tracing changes did not affect the process connections and improved the ability of affected instrumentation to function. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

FCR 90-069

DESIGN COORDINATION REPORT: Number 87-294

TITLE: Spent Fuel Pool Sampling

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) enhanced the Spent Fuel Pool sampling lines by connecting 3/8 inch tubing to the existing three sample lines. The 3/8 inch tubing was routed to a new sample sink.

PURPOSE: The purpose of this DCR was to facilitate a more controlled sample flow and to minimize the potential for contaminated spills during sampling.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the DCR made changes in the facility as described in the FSAR. The safety evaluation determined that the new sample tubing was non-nuclear safety-related equipment which did not interact with or affect safety-related equipment. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

FCR 90-064

DESIGN COORDINATION REPORT: Number 87-316

TITLE: Safety Injection Accumulator Tank Pressure Instrumentation

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) upgrades one of the existing pressure transmitters installed on each Accumulator Tank to Design Category 2 instrumentation as defined by FSAR Section 7.5.4.4.c.

PURPOSE: This DCR was implemented to fulfill NHY's commitment to provide environmentally qualified instrumentation to monitor Accumulator Tank level or pressure.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the DCR made changes in the facility as described in the FSAR. The safety evaluation determined that the design requirements of the upgraded transmitter and tubing installation are equal to or greater than those of the original design. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

FCR 89-037

DESIGN COORDINATION REPORT: Number 87-318

TITLE: Containment Sump Water Temperature

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) upgrades existing thermocouples installed on the inlet side of each Containment Building Spray (CBS) heat exchanger to Design Category 2 instrumentation as defined by IEEE 323-1974 and referenced standards.

PURPOSE: This DCR was implemented to fulfill NHY's commitment to provide environmentally qualified instrumentation to monitor Containment Sump Water Temperature.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the DCR made changes in the facility as described in the FSAR. The safety evaluation determined that the environmentally qualified Containment sump water temperature monitoring channels are non-nuclear safety-related equipment and do not interact with or affect safety-related equipment. The design requirements of the upgraded instruments are equal to or greater than those of the original instruments. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

FCR 90-058

DESIGN COORDINATION REPORT: Number 87-422

TITLE: Replacement of Residual Heat Removal (RHR) Miniflow Valves, 1-RH-FCV-610 & 1-RH-FCV-611

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) revises the design of the Residual Heat Removal (RH) Pump A and B minimum flow recirculation isolation valves. Motor-operated gate valves were replaced by motor-operated globe valves. The minimum flow restricting orifices were re-sized to accommodate the more restrictive globe valve flow characteristics. The DCR also relocated these valves in and revised the piping configuration of the RHR minimum flow recirculation lines. Miscellaneous other mechanical changes and associated electrical and instrumentation design changes were also made.

PURPOSE: A excessive pressure drop existed across the flow restricting orifice in the RHR minimum flow recirculation lines. This pressure drop created high vibration. Leakage at the pressure taps of this flow element was attributed to this high vibration. The purpose of the design change was to redistribute the pressure drop within the minimum flow recirculation line and thus reduce the piping vibration.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the DCR made changes in the facility as described in the FSAR. The safety evaluation determined that the replacement globe valve and the re-configured recirculation piping meet the applicable design criteria of and perform the same function as the original gate valve and piping. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

FCR 89-018

DESIGN COORDINATION REPORT: Number 89-047

TITLE: Startup Strainers for Condensate and Heater Drain Pumps

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) replaced the original suction strainers for the Condensate and Heater Drain Pumps. This DCR also provided strainer differential pressure indication and made changes to the Heater Drain Pumps stuffing box leakoff, mechanical seal and seal injection pressure control valve.

PURPOSE: The use of suction strainers during power ascension testing protects the pumps from damage caused by debris that is expected to be swept into the hotwell during initial operation. The original Condensate Pump suction strainers had inadequate free surface area to support full condensate flow. The original Heater Drain Pump suction strainers had a mesh opening larger than that recommended by the pump manufacturer. Strainer differential pressure indication facilitated monitoring strainer cleanliness and provided flush and cleanout connections for expedited strainer cleaning.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the DCR made changes to the facility as described in the FSAR, and identified the affected FSAR Figure. The safety evaluation determined that the DCR made changes to portions of the Condensate and Heater Drain Systems that provide no safety function; and that the changes did not affect safety systems. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

FCR 89-068

DESIGN COORDINATION REPORT: Number 89-051

TITLE: Mid-Loop Ultrasonic Level Measurement System

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) provided a narrow range indication of Reactor Coolant System (RCS) level. The Ultrasonic Level Measuring System (ULMS) utilizes piezoelectric ultrasonic transducers dry coupled the hot leg piping of RCS Loops 1 and 4. The level signal is brought to the Main Plant Computer System (MPCS) for indication in the Main Control Room. The indicating range of the ULMS covers from approximately four inches above the bottom of the hot leg to the top of the hot leg.

PURPOSE: The ULMS provides an independent method of measuring RCS level during reduced RCS inventory conditions, especially when RCS water level is at "mid-loop." The ULMS provides the RCS level hardware enhancements committed to in the NHY response to Generic Letter 88-17 (NHY letter NYN-89012). The instrumentation provides additional aids to the operator to help prevent loss of decay heat removal capability while shutdown.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation determined that the DCR changed the facility as described in the FSAR and identified the affected FSAR Figure. The safety evaluation applicability review determined that the ULMS consists of non-safety-related instrumentation which is not part of any system identified in FSAR Chapter 7 as important to plant safety in the operational or post-accident modes. The safety evaluation determined that the DCR is a design enhancement, will decrease the probability of certain accidents and will not adversely affect the function or operation of structures, systems and components important to safety. The safety evaluation concluded that the design change did not create an unreviewed safety question.

FCR 90-079

DESIGN COORDINATION REPORT: Number 89-065

TITLE: Circulating Water D[illegible] - T Upgrade

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) replaced the resistance temperature detectors (RTDs) in the Circulating Water (CW) intake and discharge structures. It also replaced their associated processing circuitry for display and alarm functions through the Main Plant Computer System (MPCS). The DCR also relocated one of three temperature detectors used as input to the MPCS for calculation of CW average discharge water temperature.

PURPOSE: The purpose of this design change was to provide detectors and circuitry which would more accurately measure the CW temperature rise across the Main Condenser. An accurate measurement of this parameter is required to ensure compliance with the National Pollution Discharge Elimination System (NPDES) Permit. The relocated temperature element provided a more reliable indication of CW discharge water temperature. (CW average discharge water temperature is calculated by the MPCS using this and two other measurements.)

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the DCR changed the facility as described in the FSAR and identified the affected FSAR Figure. The safety evaluation determined that the CW System temperature measurement channels are not nuclear safety-related; and the changes did not affect safety-related equipment. The safety evaluation concluded that the DCR did not create an reviewed safety question.

FCR 91-009

DESIGN COORDINATION REPORT: Number 89-067

TITLE: Waste Gas (WG) System Replacement Valves

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) replaced ten globe valves installed in the Radioactive Gaseous Waste, Vent Gas and Hydrogen Gas Systems. The original ten globe valves varied in size between 1/2 inch and 1 inch and had Teflon seats. The replacement valves were 1/2 inch ball valves of a design which has been successfully applied to hydrogen gas service in other industries.

PURPOSE: The purpose of the design change was to improve the leak-tightness of the valves and reduce required corrective maintenance.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review stated that the DCR changed the facility as described in the FSAR, and identified the affected FSAR Figure. The safety evaluation stated that the affected systems are non-nuclear safety class. The safety evaluation determined that a failure of the affected systems would not result in a failure of safety-related equipment. The safety evaluation concluded that the design change did not create an unreviewed safety question.

FCR 90-091

DESIGN COORDINATION REPORT: Number 89-070

TITLE: Steam Traps for Auxiliary Steam System Adjacent to Valve AS-V 38

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) provided for the installation of two additional steam trap stations in the Auxiliary Steam (AS) System, with condensate return to the system via the Auxiliary Steam Condensate (ASC) System. Three change authorizations made changes to the piping, pipe supports and added a valve.

PURPOSE: This DCR provides for the removal of condensate collected in low points of the AS piping. The valve added by one of the change authorizations was to facilitate on-line installation of the DCR.

SAFETY EVALUATION SUMMARY: A safety evaluation applicability review determined that this DCR did not make changes in the facility as described in the FSAR. However, as a conservative measure, a safety evaluation was performed for the change authorizations associated with this DCR. The safety evaluation determined that the revised piping, pipe supports and added valve did not alter the function of the AS System. The safety evaluation concluded that the change authorizations did not create an unreviewed safety question.

DESIGN COORDINATION REPORT: Number 89-075

TITLE: Unit 2 Main Steam Isolation Valve (MSIV) Actuator Rebuild for Unit 1 Installation

SUMMARY DESCRIPTION: The actuators for the Unit 2 MSIVs were rebuilt and refurbished by the original manufacturer. This Design Coordination Report (DCR) installed the rebuilt and refurbished actuators on the Unit 1 MSIV actuators. The replaced, Unit 1 actuators were returned to storage.

PURPOSE: The qualified life of the Unit 1 MSIV actuators would expire several months after restart following the first refueling outage. The rebuilt and refurbished Unit 2 actuators were restored to the new condition by the original manufacturer and installed on the Unit 1 MSIVs per this DCR to permit continued plant operation with environmentally-qualified equipment.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the FSAR was not directly affected in that the text, figures and tables in the FSAR did not require changes. The MSIVs are Safety Class 2, active components. Safety-related electrical components of the actuator are Class 1E. The safety evaluation determined that the change was essentially an "in-kind" replacement. The ability of the MSIVs to close within the time requirements stated in the FSAR and with the existing level of reliability were unaffected by this change. Minor subcomponent changes were evaluated to verify that they created no adverse affects on the function of the MSIV and that the actuators were mounted seismically. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

DESIGN COORDINATION REPORT: Number 89-079

TITLE: Unit 2 Personnel Tunnel Detection System

SUMMARY DESCRIPTION: Details of this design modification are not provided in this report since they might involve safeguards information.

PURPOSE: The purpose of this design modification is not stated in this report since it might involve safeguards information.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. Details of the safety evaluation for this design modification are not provided in this report since they might involve safeguards information. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

DESIGN COORDINATION REPORT: Number 89-080

TITLE: Control Building Air (CBA) Wet Air Intake Structure Relocation

SUMMARY DESCRIPTION: Details of this design modification are not provided in this report since they might involve safeguards information.

PURPOSE: The purpose of this design modification is not stated in this report since it might involve safeguards information.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. Details of the safety evaluation for this design modification are not provided in this report since they might involve safeguards information. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

FCR 90-026

DESIGN COORDINATION REPORT: Number 89-081

TITLE: Unit 2 Circulating and Service Water P-ing

SUMMARY DESCRIPTION: Details of this design modification are not provided in this report since they might involve safeguards information.

PURPOSE: The purpose of this design modification is not stated in this report since it might involve safeguards information.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. Details of the safety evaluation for this design modification are not provided in this report since they might involve safeguards information. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

DESIGN COORDINATION REPORT: **Number** 90-007

TITLE: Reactor Makeup Water (RMW) Nitrogen Blanket

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) converted two temporary modifications (TMODs 89-011 and 89-019) to permanent design. The DCR provided nitrogen cover gas to the Reactor Makeup Water Storage Tank from the Nitrogen Gas System and a piped supply of demineralized water to the water seals on the tank vent and overflow pipes. It also provided an revised means of sampling the tank contents for dissolved oxygen concentration.

PURPOSE: The purpose of the design changes was to make permanent the temporary modifications which were proven effective in reducing the dissolved oxygen content of the tank contents.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation determined that the DCR changed the facility as described in the FSAR and identified the affected FSAR Figure. The safety evaluation concluded that the design change did not create an unreviewed safety question.

FCR 90-068

DESIGN COORDINATION REPORT: Number 90-009

TITLE: Condensate System Tie-in for Portable Demineralizer Return

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) added a connection and a gate valve to the Condensate System to permit condensate which has been purified by mobile demineralizers during plant startup to return directly to the Main Condenser rather than indirectly via the Condensate Storage Tank.

PURPOSE: This design change will increase the maximum rate of condensate cleanup by demineralization during startup.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation determined that the design change modified a non-safety-related system described in the FSAR in such a way that no adverse impact on safety-related structures, systems or components was created. The safety evaluation concluded that the design change did not create an unreviewed safety question.

FCR 90-032

DESIGN COORDINATION REPORT: Number 90-023

TITLE: Additional Demineralized Water Storage

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) provided an additional 500,000 gallon storage tank to the Demineralized Water System. In addition to the storage tank, the DCR added piping interconnections, a tank heating system, instrumentation and controls to monitor tank parameters and prevent freezing of the contents. The DCR also documented a probabilistic evaluation of the consequences to the Control Building Air (CBA) east air intake from flooding due to the postulated failure of the new tank. As a result of this evaluation, a splash shield was provided to protect the CBA east air intake from the effects of a potential water jet that could be produced by a puncture of the new tank. Finally, the DCR provided a continuous level transmitter to the new tank with readout locally and in the Main Control Room via the Main Plant Computer System (MPCS).

PURPOSE: The purpose of this DCR was to provide 500,000 additional gallons of demineralized water to be immediately available in storage for use in the event of a major tube leak in the main condenser resulting in seawater contamination of the secondary system. The additional demineralized water would be used for expeditious secondary plant clean-up (rapid reduction of chloride concentration) following repair of the tube leak in support of plant restart.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation stated that the DCR changed the facility as described in the FSAR. It identified the affected systems as non-nuclear Safety Class. Safety-related equipment was not directly affected. The indirect, potential effect of flooding of the CBA east air intake resulting from loss of tank contents was evaluated and the effects were determined to be within the limits of the bounding flooding analysis. A splash shield was determined to be needed to protect the east air intake from the effects of a potential water jet produced by a puncture of the new tank in certain locations. The safety evaluation concluded that the design change did not create an unreviewed safety question.

FCR 90-077

DESIGN COORDINATION REPORT: Number 90-024

TITLE: RCA - Exit Area Modifications

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) reconfigurated the exit zone of the Radiologically-Controlled Area (RCA) of the Station. The DCR modified the Administration Building room arrangement in the RCA exit area, added two new exit contamination monitors and a self-contained heating, ventilating and air-conditioning (HVAC) system for the relocated Count Room.

PURPOSE: The purpose of this DCR was to improve the efficiency of the RCA check point and enhance the ability to expeditiously process personnel exiting the RCA.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation determined that the design change affected several Figures of the FSAR and made minor corrections to the description of the Count Room Air Conditioning System in the FSAR. The modifications did not affect safety-related systems. The safety evaluation concluded that the design change did not create an unreviewed safety question.

FCR 91-005

DESIGN COORDINATION REPORT: Number 90-025

TITLE: Main Control Board (MCB) Alarms for Turbine Runback/Setback/Trip

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) made numerous changes. Main Control Board (MCB) indication and alarm of inputs relating to Main Turbine runback, setback and trip were added. Time delays were added to Main Turbine setback signals originated by Condensate Pump logic and Isolated Phase Bus Duct Cooling logic. A Main Turbine Setback signal in response to a trip of either Main Feed Pump was added. Miscellaneous corrections to electrical drawings were also made.

PURPOSE: Main Control Board indication and alarm of inputs relating to Main Turbine runback, setback and trip were added to enhance the ability of the operators to assess plant conditions following Main Turbine automatic action. The time delays added to the Main Turbine setback signals originated by Condensate Pump logic and Isolated Phase Bus Duct Cooling logic block unwanted Main Turbine setback during startup of standby equipment. The Main Turbine setback in response to a trip of either Main Feed Pump reduces the potential for low steam generator level and consequent reactor trip following trip of either Main Feed Pump.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation determined that the design changes are enhancements that do not adversely affect systems or equipment. The DCR affected a Figure of the FSAR. The safety evaluation concluded that the design change did not create an unreviewed safety question.

FCR 90-106

DESIGN COORDINATION REPORT: Number 90-030

TITLE: High Energy Drain Line to Condenser

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) upgraded the design of the Main Condenser. Design changes included: a) the addition of flow control orifices to the warm up, main steam and steam chest drain lines to limit the energy level of fluid entering the Main Condenser to moderate levels; b) the addition of internal condenser shields and baffles to protect the condenser tubes from impingement and erosion damage; c) size reduction of valve MSD-V52 and line (which bypasses steam from the gland steam supply header to the condenser) to limit the energy level of fluid entering the Main Condenser through this line; d) changes in tube stake design to increase stake effectiveness; e) removal or abandonment-in-place of unused Main Condenser instrumentation taps and connection fixtures.

PURPOSE: The purpose of this DCR was to address the recommendations of EPRI Report CS-2251 regarding the admission of high energy fluids to the Main Condenser, and to incorporate other Main Condenser design enhancements.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation states that the design change affects a Figure of the FSAR but does not affect the function of the systems as described in the FSAR. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

DCR 91-006

DESIGN COORDINATION REPORT: Number 90-031

TITLE: Add Fixed Camera for Gate 1 and VHF Receiver at SAS

SUMMARY DESCRIPTION: Details of this design modification are not provided in this report since they may involve safeguards information.

PURPOSE: The purpose of this design modification is not stated in this report since it might involve safeguards information.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. Details of the safety evaluation for this design modification are not provided in this report since they may involve safeguards information. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

DESIGN COORDINATION REPORT: Number 90-032

TITLE: Emergency Feedwater (EFW) Pump Turbine Steam Supply Containment Isolation Valve Change

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) converted the EFW pump turbine steam supply/GDC 57 Containment isolation valves (MS-V127 and MS-V128) to manually operated valves, upgraded downstream manually operated valves (MS-V393 and MS-V394) to Safety Class 2, GDC 57 Containment isolation valves, and upgraded the intervening piping to Safety Class 2. The DCR extended the GDC 57 Containment isolation barrier for the EFW pump turbine branch headers downstream to pneumatically operated globe valves MS-V393, MS-V394 and their manual bypass valves. The DCR replaced the obsolete pneumatic operators on gate valves MS-V127 and MS-V128 with gear-operated manual actuators. The DCR re-routed drain lines, provided nitrogen gas back-up to the pneumatic actuators for GDC 57 Containment isolation valves MS-V393 and MS-V394, changed the EFW System inoperable alarms and made other miscellaneous changes.

PURPOSE: The pneumatic operators for valves MS-V127 and MS-V128 were causing the valves to stick in the closed position. Spare parts for these obsolete operators were not readily available. The DCR enhanced operational reliability at minimum cost by transferring the GDC 57 Containment isolation function to downstream pneumatically-operated globe valves MS-V393, MS-V394. Maintenance flexibility is enhanced by the ability to use MS-V127 and MS-V128 as manual isolation valves for MS-V393 and MS-V394.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the DCR made changes in the facility as described in the FSAR. The safety evaluation determined that the revised configuration of the EFW steam supply/GDC 57 Containment isolation valves meets regulatory criteria for closed systems. The EFW turbine steam supply system is unaffected. Design modifications met original design requirements. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

FCR 91-011

DESIGN COORDINATION REPORT: Number 90-041

TITLE: Steam Generator Level Channels Filter Card Addition and Set Point Program Deletion

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) added eight lead/lag circuit cards configured for a lag function to the output of the steam generator (SG) narrow range level transmitters which share the same tap as the steam flow transmitters. The DCR also added series relay circuit cards to allow routine testing of S/G level bistable trip values without the use of jumpers and circuit modifications. Finally, it removed the S/G level set point circuitry.

PURPOSE: The purpose of lag function is to prevent pressure waves generated in the impulse lines of the steam flow transmitters from creating false high-high or low-low S/G level signals in transmitters which share the same tap. Such false signals could unnecessarily isolate Main Feedwater or trip the reactor. Removal of the level setpoint program circuitry eliminated a potential, multiple-loop feedwater malfunction.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the DCR made changes in the facility as described in the FSAR. The safety evaluation determined that the replacement circuit cards were Class 1E equipment used for protective functions. The change was evaluated for its effect on the safety analysis. Potential failures of the added equipment were evaluated. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

FCR 90-112

DESIGN COORDINATION REPORT: Number 90-042

TITLE: Alternate Spent Fuel Pool Cooling

SUMMARY DESCRIPTION: Normally, heat from spent fuel in the Spent Fuel Pool is transferred by the Spent Fuel Pool Cooling (SF) System to the Primary Component Cooling Water (PCCW) System. The PCCW System transfers heat to the Service Water (SW) System which transfers it to the ultimate heat sink, the Atlantic Ocean. During the first refueling outage, with spent fuel from Core No. 1 located in the Spent Fuel Pool, both Trains of PCCW were unavailable due to heat exchanger retubing (DCR 90-045). This Design Coordination Report (DCR) provided an alternative means of removing heat from the SF System. A third SF heat exchanger was installed in the Fuel Storage Building (FSB). This heat exchanger was cooled by a temporary, non-safety-related cooling tower located adjacent to the FSB. Piping was installed to make available backup cooling capability, if needed, from either the Service Water Cooling Tower (preferred back-up) or the Atlantic Ocean via the SW System (contingency back-up).

PURPOSE: The purpose of this DCR was to provide an acceptable method of cooling irradiated spent fuel in the Spent Fuel Pool while retubing both PCCW heat exchangers simultaneously (DCR 90-0045).

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the DCR made changes to the facility and procedures as described in the FSAR. The safety evaluation identified the FSAR text, Tables and Figures affected by the design change. The safety evaluation determined that the Alternate Spent Fuel Pool Cooling System did not impact the limiting fuel handling accident described in the FSAR. Limitations on the system maintained credible accidents and resultant consequences within the bounds of those previously analyzed in the FSAR. The safety evaluation concluded that the design change did not create an unreviewed safety question.

FCR 90-114

DESIGN COORDINATION REPORT: Number 90-045

TITLE: Primary Component Cooling Water Heat Exchanger Retube/Tubesheet Coating

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) performed an in-kind replacement of the prematurely-degrading tubes of the Primary Component Cooling (PCCW) Heat Exchangers. This DCR also provided technical input for the addition of a protective coating to provide a corrosion barrier between the rolled joint of the tube and the tube sheet of the heat exchangers.

PURPOSE: The purpose of this DCR was to restore the cooling capacity of the PCCW heat exchangers to the originally-designed level, and to provide additional protection against damage from erosion/corrosion.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the design change affected the text of the FSAR. The safety evaluation determined that the design change upgraded the design standards of the heat exchanger and enhanced its corrosion resistance by the addition of the protective coating. The safety evaluation concluded that the design change did not create an unreviewed safety question.

FCR 90-127

DESIGN COORDINATION REPORT: **Number** 90-047

TITLE: Reactor Cavity Cleanup System Filter Installation

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) replaced the Reactor Cavity Cleanup System's unshielded strainer with a variable cartridge shielded filter unit. An existing gate valve was also replaced with a plug valve. Additional changes to the system valving and piping configuration were also made.

PURPOSE: This design change was implemented to address ALARA concerns associated with the existing system.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the design change affected the text and several Figures of the FSAR. The safety evaluation determined that the design change upgraded the design standards of the involved components. The safety evaluation concluded that the design change did not create an unreviewed safety question.

FCR 91-018

DESIGN COORDINATION REPORT: Number 90-049

TITLE: Diesel Generator Jacket Water Temperature Control

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) modified the response characteristics of the Diesel Generator jacket water pneumatic temperature control system, and installed several design enhancements to diesel generator support systems. The design enhancements included a) fuel oil filter vent and drain connections; b) fuel oil strainer DP switch test connections; c) revised setpoint for the low fuel oil pressure switch; d) revised rocker arm lube oil high level alarm circuit; e) protective covers for the pneumatic temperature and differential pressure controller adjustment knobs. The DCR also made editorial corrections to diesel generator drawings.

PURPOSE: The purpose of the DCR was to improve the performance of the Diesel Generator jacket water temperature control system, to improve maintenance capabilities and alarm function reliability of diesel generator support systems, and to incorporate various enhancements into the design.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the design change affected the text and several Figures of the FSAR. The safety evaluation determined that the design change improved system performance, and concluded that the design change did not create an unreviewed safety question.

FCR 91-024

DESIGN COORDINATION REPORT: Number 90-050

TITLE: Turbine Generator Control Valve Test Bias Addition

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) added a control valve test bias (CVTB) circuit and a speed error filter (SEF) circuit to the Turbine Generator Electro-hydraulic Control (EHC) Cabinet.

PURPOSE: The purpose of this DCR was to permit weekly turbine-generator control valve surveillance testing without the necessity of entering the turbine-generator EHC Cabinet to make voltage adjustments, which increases the risk of turbine/reactor trip. The CVTB circuit allows a bumpless transfer when the stage pressure signal is switched into and out of the control valve amplifier circuit for testing.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the FSAR was not directly affected in that the text, figures and tables in the FSAR did not require changes. The safety evaluation determined that the design bases for the new circuit boards are the same as the design bases for the existing boards. Elimination of the need to enter the EHC Cabinet and make voltage adjustments would reduce the probability of several Condition II events analyzed in the FSAR, and thus enhance the margin of safety for these events. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

DESIGN COORDINATION REPORT: Number 91-009

TITLE: Feedwater Regulating Valve Trim Change

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) replaced the trim of the feedwater regulating valves with a trim of balanced, single seat design. The replacement trim consists of the cage, cage spacer, plug and stem assembly, baffle assembly, gaskets, O-rings and various seals. Replacement valve actuator components are also included within the scope of the DCR. The replacement trim is a proven design with excellent performance at other nuclear plants. This DCR also made permanent the temporary setpoint change which revised the differential pressure range for the Main Feedwater Pump speed control program from 80-195 psid to 80-165 psid.

PURPOSE: The purpose of this DCR was to eliminate feedwater regulating valve stem oscillations experienced during the first operating cycle and, following trim replacement, to enable the valve to operate in a more fully open position where valve hysteresis has less effect on flow control.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the UFSAR was not directly affected in that the text, figures and tables in the UFSAR did not require changes. The safety evaluation determined that the feedwater regulating valves are classified as non-nuclear safety equipment but are important to safety based on their closing function in response to a feedwater isolation signal. The modified internal components of the feedwater regulating valve will not change the originally-designed performance objectives of the valve or affect their ability to close in response to a feedwater isolation signal. The replacement components are procured in accordance with the original specification and purchase order for ASME Code Class 3 trim components with one authorized exception. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

DESIGN COORDINATION REPORT: Number 91-011

TITLE: Personnel Hatch Area Modifications

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) reconfigured the area immediately surrounding the Containment personnel hatch. The DCR relocated a support, a lighting panel, a telephone jack and two area radiation detectors.

PURPOSE: The purpose of this DCR was to relocate items which significantly restricted access to the Containment personnel hatch and thus enhanced the ability to move material and equipment through the Containment personnel hatch.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the UFSAR was not directly affected in that the text, figures and tables in the UFSAR did not require changes. The safety evaluation determined that the modifications did not affect any safety-related equipment. The relocated radiation detectors remained aligned with the personnel hatch as described in the UFSAR. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

DESIGN COORDINATION REPORT: Number 91-012

TITLE: Reheater Drain Tank Level Controls

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) revised the design of the Reheater Drain Tank level control "trees." Design features which were provided by this design change included: a) Double valve isolation for each instrument; b) Welded connections; c) Separate electrical power sources for normal and high level dump controls; d) Primary and back-up controls for normal and high level dump controls.

PURPOSE: The purpose of the design change was to improve equipment reliability and facilitate on-line maintenance.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation stated that the design change affected a Figure of the FSAR but did not affect the function of the systems as described in the FSAR. The safety evaluation concluded that the design change did not create an unreviewed safety question.

FCR 91-048

DESIGN COORDINATION REPORT: Number 91-035

TITLE: Feedwater Check Valve Modification

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) modified the internals of Main Feedwater System check valves FW-V330, FW-V331, FW-V332 and FW-V333. The diameter of the sixteen dash plate/locking ring attachment bolts was increased from 3/8 inch to 5/8 inch. The DCR also included the necessary changes to the lock ring and dash plate to accommodate the larger diameter bolts. This DCR was implemented during the first refueling outage.

PURPOSE: This DCR was a follow-up to Minor Modification (MMOD) 91-529, which increased the number of dash plate/locking ring attachment bolts from the original eight to sixteen. The DCR provided a more conservative redesign giving the dash plate/locking ring joint the capability to withstand system design pressure and maximum differential pressure across the dash plate in the opening direction.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the UFSAR was not directly affected in that the text, figures and tables in the UFSAR did not require changes. The safety evaluation determined the safety function of the feedwater check valves to be a controlled closing function. The design change did not affect this safety function. It also did not affect the opening stroke. The conservative redesign increased bolt size and consequently reduced individual bolt stress. This redesign was expected to eliminate further instances of bolt failure due to forces that occur during opening. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

DESIGN COORDINATION REPORT: Number 91-043

TITLE: Coupling Capacitor Replacement Parts

SUMMARY DESCRIPTION: This Design Coordination Report (DCR) evaluated the differences between Trench Electric Types TEC345 and TEV345 coupling capacitor voltage transformers (CCVTs) and General Electric Type CW30D coupling capacitors. It approved the use of Trench Electric Types TEC345 and TEV345 coupling capacitor voltage transformers (CCVTs) as replacements for the existing General Electric Type CW30D coupling capacitors used in the 345 kv air termination yard as part of the Power Line Carrier (PLC) portion of the transmission line protective relaying scheme.

PURPOSE: The replacement CCVTs were required because General Electric Type CW30D coupling capacitors are no longer available from the original manufacturer.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this design change. The safety evaluation applicability review determined that the DCR made changes in the facility as described in the FSAR, although no FSAR revisions were required. The offsite power system and transmission line protection scheme, including the power line carrier equipment are classified nonsafety-related. The safety evaluation determined that the replacement CCVT did not change the function or operation of the affected systems and was an acceptable replacement for the G.E. Type CW30D coupling capacitor. The safety evaluation concluded that the DCR did not create an unreviewed safety question.

MINOR MODIFICATION: Number 89-604

TITLE: Bubbler Tube Material

SUMMARY DESCRIPTION: Water level difference on either side of the traveling screens in the Circulating Water and Service Water Pump bays is detected by a differential pressure system utilizing bubbler tubes. This Minor Modification (MMOD) replaced the monel bubbler tubes with polyethelene tubing.

PURPOSE: The modification provided bubbler tubes which were not susceptible to sea water corrosion.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications made changes to the facility as described in the FSAR and identified the affected FSAR Table. The bubbler tubes are designated non-safety class; those in the Service Water Pump House are seismically-supported. The safety evaluation determined that the modifications did not affect the design or function of the Circulating Water (CW) or Service Water (SW) System or affect other safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 89-616

TITLE: Condensate Pump Demineralized Water Supply

SUMMARY DESCRIPTION: This Minor Modification (MMOD) added an isolation valve and a pressure-reducing valve to the backup seal water supply from the Demineralized Water (DM) System to the Condensate Pump seals.

PURPOSE: The modification was a design enhancement to provide a more accessible isolation valve and a pressure reducing valve to regulate the pressure of this backup source of seal water for the Condensate Pumps.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications made changes to the facility as described in the FSAR and identified the affected FSAR Figure. The affected portions of the Condensate and DM Systems are designated non-safety class, non-seismic. The safety evaluation determined that the modifications did not affect the design or function of the Condensate or DM System or affect safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 90-070

MINOR MODIFICATION: Number 90-515

TITLE: Chain Hoist for North Residual Heat Removal (RH) Vault

SUMMARY DESCRIPTION: This Minor Modification (MMOD) provided a permanently installed electric chain hoist mounted on an existing monorail located in the North RH Vault. Electrical power, restraints and supports associated with the hoist were also provided. The former design provided for the use of a hand-operated chain hoist during maintenance periods. The manual hoist was removed from the monorail when not in use.

PURPOSE: The purpose of the chain hoist was to assist maintenance personnel with lifting heavy objects in and out of the vault areas.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect FSAR in that the text, figures and tables in the FSAR did not require changes. The chain hoist is designated non-safety-related, but is seismically supported. The safety evaluation determined that the permanently-mounted, electric chain hoist is within the capacity of the monorail, meets seismic design requirements and satisfies heavy load criteria based on NUREG-0612. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 90-519

TITLE: Replacement of Current to Pneumatic Pressure (I/P) transducers for the Atmospheric Steam Dump Valves (ASDVs)

SUMMARY DESCRIPTION: This Minor Modification (MMOD) replaced the I/P transducers originally provided for the steam generator ASDVs with I/P transducers manufactured by a different vendor. Subsequently, as part of this same MMOD, the original type I/P transducers were re-installed on the ASDVs.

PURPOSE: The original type I/P transducers were replaced with the expectation of eliminating excessive drift. The original type I/P transducers were subsequently restored to the ASDVs because the replacement I/P transducers introduced unacceptable instability. The drift problem with the original type I/P transducers was minimized by utilizing calibration tolerances.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modification did not directly affect the FSAR in that the text, figures and tables in the FSAR did not require changes. The ASDVs are designated Safety Class 2 components. The I/P transducers are designated non-safety-related, but are seismically supported. The safety evaluation determined that the replacement transducers conformed to the original design criteria and did not affect the function, operation or failure modes of the ASDVs. However, the final phase of the modification restored the original design; so, in the end, there was no change. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 91-027

MINOR MODIFICATION: Number 90-523

TITLE: Service Water Valves Stroke Time Revision.

SUMMARY DESCRIPTION: This Minor Modification (MMOD) provided the basis to revise the stroke time requirements for six motor-operated valves in the Service Water (SW) System. The NHY Data Sheets for Motor and Air Operated Valves and Dampers were revised to reflect this change.

PURPOSE: The stroke time requirements for the affected valves were revised to provide margin for the Primary Component Cooling Water (PCCW) high temperature trip delay such that spurious PCCW pump trips do not occur. The revised stroke time requirements were consistent with analysis assumptions.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications made changes to the facility as described in the FSAR and identified the affected FSAR Table. The SW System is designated Safety Class 3, Seismic Category 1. The safety evaluation determined that the revised stroke time requirements did not affect the design of function of affected valves or the SW System. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 90-072

MINOR MODIFICATION: Number 90-529

TITLE: Charging System Instrumentation Modifications

SUMMARY DESCRIPTION: This Minor Modification (MMOD) provided several instrumentation and control changes affecting the Charging Subsystem of the Chemical and Volume Control (CS) System. The changes included a new capillary for a replacement level transmitter for the Volume Control Tank (VCT), rearrangement of the bellows and tubing/piping for the VCT level transmitters, and addition of instrument snubbers on process connections near the pressure indicators associated with the boric acid transfer pumps and the boric acid filter.

PURPOSE: The new capillary for the replacement VCT level transmitter was needed because the capillary for the replacement transmitter was shorter than that of the original transmitter. The purpose of the rearrangement of the bellows and tubing/piping for the VCT level transmitters was to eliminate low points which accumulate moisture which affected instrument accuracy. The purpose of the instrument snubbers was to eliminate pressure pulsations to the gages.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect FSAR in that the text, figures and tables in the FSAR did not require changes. The affected instruments, capillaries, tubing and piping are designated non-safety-related but are seismically mounted. The safety evaluation determined that the modifications conformed to the original design criteria and did not affect the function, operation or failure modes of the affected instruments. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 91-027

MINOR MODIFICATION: Number 90-544

TITLE: Essential and Non-Essential Switchgear Room Access

SUMMARY DESCRIPTION: This Minor Modification (MMOD) added a door between the Turbine Building and the Non-essential Switchgear Room. It also added concrete ramps at this door and at an existing door to the Essential Switchgear Room.

PURPOSE: The purpose of the modifications was to facilitate the safe movement of electrical test equipment between the affected rooms.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications made changes to the facility as described in the FSAR and identified the affected FSAR Figures. The changes affect non-safety-related, non-seismic structures. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 90-115

MINOR MODIFICATION: Number 90-545

TITLE: Blowdown Flash Tank Subcooling Injection Line

SUMMARY DESCRIPTION: This Minor Modification (MMOD) added a water injection line from the Demineralized Water (DM) System to the Steam Generator Blowdown System Flash Tank. The MMOD also provided the basis for increasing the normal operating level of the Blowdown Flash Tank. Finally, it made other miscellaneous changes to Flash Tank hardware, instrumentation and documentation.

PURPOSE: Steam generator blowdown flow rate was restricted to 60 percent of design blowdown flow rate because, at blowdown flow rates above this rate, flashing was occurring at the flash tank outlet. The water injection line was added to the Blowdown Flash Tank to enhance subcooling margin.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications made changes to the facility as described in the FSAR and identified the affected FSAR Figure. The DM System piping and injection nozzle are designated non-safety class. The safety evaluation determined that the MMOD enhanced the ability to achieve the design blowdown flow rate and therefore maintain proper steam generator chemistry control. The changes to non-safety class piping did not affect safety-related systems. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 90-024

MINOR MODIFICATION: Number 90-558

TITLE: Addition of Bypass/Test Connection for the Emergency Feedwater (EFW) System Cross-Tie Check Valves

SUMMARY DESCRIPTION: This Minor Modification (MMOD) added a bypass/test connection to the EFW System to permit backflow testing of two EFW System check valves.

PURPOSE: The two EFW System check valves are required by the ASME Code, Section XI to be backflow tested. This MMOD provided the means to conduct the testing.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications made changes to the facility as described in the FSAR and identified the affected FSAR Figure. A portion of the piping and valving of this MMOD is designated Safety Class 3, Seismic Category 1; and a portion is designated non-safety class. The safety evaluation determined that the piping and valves which were added resulted in a non-functional change to the EFW System. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 90-101

MINOR MODIFICATION: Number 90-561

TITLE: Removal of Signal Memory Function to the Main Feedwater Pumps

SUMMARY DESCRIPTION: This Minor Modification (MMOD) disabled the signal memory function (SMF) associated with the Main Feedwater Pumps speed control system. This control feature is designed to lock in a previous control signal when the actual control signal is lost.

PURPOSE: The SMF feature was disabled because it would not function as intended in the Seabrook Station application. If activated, the SMF feature would probably reduce rather than maintain the speed of the Main Feedwater Pump. Furthermore, if activated, this feature would not provide an alarm or other direct indication to the Control Room that is was actuated.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect FSAR in that the text, figures and tables in the FSAR did not require changes. The affected control circuitry is designated non-safety-related equipment. The safety evaluation determined that this MMOD improved the reliability of the Main Feedwater Pump speed control circuit, and did not adversely affect the function or operation of the Feedwater System or safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 90-567

TITLE: Steam Generator Blowdown (SB) Sample Tubing Personnel Protection

SUMMARY DESCRIPTION: This Minor Modification (MMOD) provided insulation and enclosures around segments of SB System sample tubing in the Primary Auxiliary Building (PAB).

PURPOSE: The purpose of the insulation and enclosures was to protect personnel from injury resulting from contact with the hot tubing.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect FSAR in that the text, figures and tables in the FSAR did not require changes. The safety evaluation determined that this MMOD provided personnel injury protection and not affect the function or operation of the SB System and did not adversely affect safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 90-582

TITLE: Service Air Float Trap Substitution

SUMMARY DESCRIPTION: This Minor Modification (MMOD) replaced the float traps originally installed on the service air compressors and the air receiver tanks. Minor piping and valve modifications were made to facilitate installation of the substitute traps.

PURPOSE: The original float traps are no longer manufactured. Thus, replacement traps and spare parts are not available. The purpose of the MMOD was to provide the engineering basis for an equivalent replacement.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications made changes to the facility as described in the FSAR and identified the affected FSAR Figure. The replacement float trap is designated non-safety related and non-seismic. The safety evaluation determined that the replacement float trap was identical in function as the original and differed only in form. The replacement float trap did not change the performance or operation of the Instrument Air System in any way that would affect the analysis or conclusions of the FSAR. Therefore, the substitute float trap was determined to be an acceptable replacement for this application. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 90-050

MINOR MODIFICATION: Number 90-586

TITLE: Update of Drawings for the Primary Sample Panel

SUMMARY DESCRIPTION: This Minor Modification (MMOD) updated drawings associated with the Primary Sample Panel to reflect as-built conditions. It also provided new and/or replacement tag nameplates and replaced pressure indicators associated with the vacuum pump.

PURPOSE: The drawing updates were performed in order to document and label the as-built condition of the Primary Sample Panel, interfacing valves, piping and fittings. Replacement of the pressure indicators associated with the vacuum pump facilitated the use of commonly stocked rather than unique components.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications made changes to the facility as described in the FSAR and identified the affected FSAR Figure. The Primary Sample Panel is designated non-safety class, non-seismic. The safety evaluation determined that the drawing updates and pressure indicator replacements were enhancements and safety related equipment would not be adversely affected. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 90-047

MINOR MODIFICATION: Number 90-588

TITLE: Condensate Storage Tank (CST) Temperature Control

SUMMARY DESCRIPTION: This Minor Modification (MMOD) revised the main steam line break analysis to permit a lower CST temperature operating band and implemented various design enhancements to the CST temperature control system. The enhancements included local CST temperature indicators, CST temperature indication in the Control Room based on direct CST temperature measurement, revised CST temperature alarm setpoints, and CST temperature controller adjustments.

PURPOSE: The purpose of the main steam line break analysis revision was to lower the assumed minimum enthalpy of condensate supplied to the Emergency Feedwater (EFW) System to the steam generators. This revision enabled the operating range of CST water temperature to be more realistic and within the design range of the temperature control system. The purpose of the various hardware and setpoint enhancements was to improve automatic CST temperature control and increase the operator's ability to monitor CST temperature.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications made changes to the facility as described in the FSAR and identified the affected FSAR Sections. Affected hardware is designated non-safety class, non-seismic. The safety evaluation determined that the reduction in the operating temperature range of the CST would not adversely affect the ability of the EFW System to perform its safety functions. The safety evaluation also determined that the hardware and setpoint changes of this MMOD enhanced CST temperature monitoring capability and automatic control, and did not adversely affect safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 90-097

MINOR MODIFICATION: Number 90-597

TITLE: Post Accident Sampling System (PASS) Panel Modifications

SUMMARY DESCRIPTION: This Minor Modification (MMOD) added an inlet filter/trap and check valve to the PASS Panel vacuum pump suction line.

PURPOSE: The purpose of the modifications was to remove moisture from the sample to ensure the capability of the PASS to analyze sample boron concentrations within specified accuracy. The check valve also protects against the possible back flow of oil from the vacuum pump to the expansion cylinders.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications made changes to the facility as described in the FSAR and identified the affected FSAR Figure. The Pass Panel is designated non-safety class and non-seismic. The safety evaluation determined that this MMOD enhanced system design and did not adversely affect safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 91-007

MINOR MODIFICATION: Number 90-599

TITLE: Auxiliary Boiler Feed Pump Mechanical Seals

SUMMARY DESCRIPTION: This Minor Modification (MMOD) replaced the gland seals and packing of the Auxiliary Boiler feedwater pumps with single mechanical seals.

PURPOSE: The original gland seals and packing for the Auxiliary Boiler feedwater pumps have had a history of packing failures and have required a high amount of maintenance. The replacement mechanical seals are expected to reduce the failures and the amount of required maintenance.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect FSAR in that the text, figures and tables in the FSAR did not require changes. The Auxiliary Boiler feedwater pumps mechanical seals are designated non-safety-related, non-seismic. The safety evaluation determined that this MMOD enhanced system design and did not adversely affect safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: **Number** 90-600

TITLE: Revise Magnetic Switch for Door P415

SUMMARY DESCRIPTION: Details of this minor modification are not provided in this report since they might involve safeguards information.

PURPOSE: The purpose of this minor modification is not stated in this report since it might involve safeguards information.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. Details of the safety evaluation for this design modification are not provided in this report since they might involve safeguards information. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 90-618

TITLE: Miscellaneous Tagging and Label Changes

SUMMARY DESCRIPTION: This Minor Modification (MMOD) made miscellaneous document and label updates. Tagging and/or label information was added to drawings, documents and panels associated with the Loose Parts Monitoring System. The MMOD also corrected a vendor manual and FSAR error relating to this system. The changes affected documentation; there were no hardware changes, other than adding new and/or replacement tag nameplates.

PURPOSE: The drawing, document and FSAR updates were performed in order to document and label the as-built condition of the Loose Parts Monitoring (LPM) System.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the MMOD made document changes affecting the FSAR. The LPM System is designated non-safety-related, but is designed to withstand an Operational Basis Earthquake. The safety evaluation determined that the MMOD made document and tagging/label changes. It did not substantially alter plant equipment, and therefore did not affect the function or operation of the LPM System or safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 90-061

MINOR MODIFICATION: Number 90-622

TITLE: Modification to Turbine-Generator Setback Signal Logic

SUMMARY DESCRIPTION: This Minor Modification (MMOD) added time delays to two parameters which produce a turbine-generator load setback signal. A three second time delay was added to the Main Generator breaker cooling banks load setback signal. A thirty minute time delay was added to the Generator Step-up (GSU) Transformer Cooling System load setback signal. The MMOD also added a three second time delay to the Main Control Room and local alarms initiated by the generator breaker cooling banks overload circuit.

PURPOSE: The purpose of the time delays added to the turbine-generator load setback signal and the alarm circuits was to prevent unnecessary load setbacks and alarms resulting from the automatic startup or switchover of cooling fans in the GSU Transformer and Main Generator breaker cooling systems.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect FSAR in that the text, figures and tables in the FSAR did not require changes. The GSU Transformer and Main Generator Breaker cooling systems are designated non-safety-related, non-seismic. The safety evaluation determined that the EHC modifications were design enhancements and did not adversely affect safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 90-624

TITLE: Update of Drawings for Steam Generator Sample Chiller Unit Skid

SUMMARY DESCRIPTION: This Minor Modification (MMOD) updated drawings associated with the Steam Generator Sample Chiller Unit Skid and four associated Radiation Monitoring Skids to reflect as-built conditions and provided new and/or replacement tag nameplates. The changes affected documentation; there were no hardware changes, other than adding new and/or replacement tag nameplates.

PURPOSE: The drawing updates were performed in order to document and label the as-built condition of the Steam Generator Sample Chiller Unit Skid and four Radiation Monitoring Skids, interfacing valves, piping and fittings.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications made changes to the facility as described in the FSAR and identified the affected FSAR Figures. The Steam Generator Sample Chiller Unit Skid and four Radiation Monitoring Skids are designated non-Safety Class. The safety evaluation determined that the drawing updates were enhancements and safety related equipment would not adversely affected, since no hardware changes, other than the addition or replacement of a nameplate were made. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 90-073

MINOR MODIFICATION: Number 90-635

TITLE: Electro-Hydraulic Control (EHC) System Trip Solenoid Valve

SUMMARY DESCRIPTION: This Minor Modification (MMOD) replaced the original, two coil type electric trip solenoid valve (ETSV) with an improved, finned single coil type ETSV. The MMOD also added a manifold strainer.

PURPOSE: The replacement ETSV is an improved design developed by the Turbine-Generator manufacturer. It has been demonstrated to be more reliable than the two coil type. The manifold strainer is also expected to improve system reliability.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect FSAR in that the text, figures and tables in the FSAR did not require changes. The EHC System is designated non-safety-related, non-seismic. The safety evaluation determined that the EHC modifications were design enhancements and did not adversely affect safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 90-638

TITLE: Alarm System Enhancements and Lens Engraving

SUMMARY DESCRIPTION: This Minor Modification (MMOD) made miscellaneous changes to the Video Alarm System (VAS) alarm circuits and Main Control Board (MCB) status monitoring light lenses. The modifications to the VAS were to correct drawing errors, enhance alarm logic, and revise alarm setpoints. The modifications to the status monitoring light lenses were to provide more appropriate terminology. Changes affected alarms and status monitoring light lenses for parameters in the Reactor Coolant (RC), Residual Heat Removal (RH), Service Water (SW), Containment Enclosure Air Handling (EAH) and the Fuel Storage Building Air Handling (FAH) Systems.

PURPOSE: The purpose of the modifications was to enhance various alarms and status lights and to correct miscellaneous discrepancies in drawings.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications made no changes to the facility as described in the FSAR except for a minor changes affecting several FSAR Figures. The VAS is designated non-safety-related. The safety evaluation determined that the modifications were enhancements which would not adversely affect safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 90-118

MINOR MODIFICATION: Number 90-644

TITLE: Feedwater Heater Relief Valves

SUMMARY DESCRIPTION: This Minor Modification (MMOD) replaced the Feedwater Heater tube side relief valves with relief valves of a balanced bellows design, revised the setpoint for the new relief valves and directed their discharge to the feedwater heater drain piping.

PURPOSE: The original design directed the discharge of the Feedwater Heater tube side relief valves to an open drain in the Turbine Building Heater Bay. In the event of relief valve actuation, hot water and steam would be released to the Turbine Building, creating a personnel hazard. This MMOD directs the discharge of the relief valves to a closed piping system to eliminate the personnel safety hazard. The use of relief valves of balanced bellows design is appropriate for the variable back pressure application.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect FSAR in that the text, figures and tables in the FSAR did not require changes. The affected portions of the Feedwater, Condensate and Heater Drain Systems are designated non-safety-related, non-seismic. The safety evaluation determined that this MMOD enhanced system design and did not adversely affect safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 90-647

TITLE: Feedwater Pump Instrumentation

SUMMARY DESCRIPTION: This Minor Modification (MMOD) made several instrumentation changes affecting the Main Feedwater Pumps. The low suction pressure trip setpoint was reset from 230 psig to 210 psig. The feedwater header high pressure alarm was increased from 1185 psig to 1285 psig. Main feedwater pump discharge pressure switches were replaced with switches having a greater range.

PURPOSE: The purpose of the setpoint changes was to provide more margin between the normal operating point of the parameter and the alarm or trip setpoint so that unnecessary trips and alarms will not result from operational transients. The replacement pressure switches will produce more reliable operation.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not make changes to the facility as described in the FSAR except for a minor change affecting one FSAR Figure. The affected instrumentation is non-safety-related. The safety evaluation determined that the modifications were enhancements which would not adversely affect safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 91-025

MINOR MODIFICATION: Number 90-648

TITLE: Update of Drawings for Radiation Monitor Skids

SUMMARY DESCRIPTION: This Minor Modification (MMOD) updated drawings associated with ten Radiation Monitoring Skids to reflect as-built conditions. It also provided new and/or replacement tag nameplates. The changes affected documentation only; there were no hardware changes, other than adding new and/or replacement tag nameplates.

PURPOSE: The drawing updates were performed in order to document the as-built condition of the Radiation Monitoring Skids and interfacing valves, piping and fittings.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications made changes to the facility as described in the FSAR and identified the affected FSAR Figures. The Radiation Monitoring Skids are designated non-Safety Class, non seismic except for 1-RM-SKD-60 which is Seismic Category 1. The safety evaluation determined that the drawing updates were enhancements and safety related equipment would not be adversely affected, since no hardware changes, other than the addition or replacement of a nameplate were made. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 90-089

MINOR MODIFICATION: Number 90-657

TITLE: Miscellaneous Human Factor Changes on the Main Control Board

SUMMARY DESCRIPTION: This Minor Modification (MMOD) provided miscellaneous modifications to the Main Control Board (MCB). Changes included annunciator lenses with revised engraving, a modified plexiglass cover for Site Area Emergency Alarm Controls, and a revision to the FSAR regarding the color of labels for Category 1 variables. The MMOD also included corrections to design documents.

PURPOSE: The miscellaneous changes to the MCB were made based on human factors considerations.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications made changes to the facility as described in the FSAR and identified the affected FSAR Section. The MCB is Seismic Category 1 and contains Class 1E and non Class 1E electrical equipment. The safety evaluation determined that the changes to the MCB were enhancements which would not adversely affect the function of the MCB. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 90-123

MINOR MODIFICATION: Number 90-664

TITLE: Fire Panel FP-CP-409 Annunciator Modifications

SUMMARY DESCRIPTION: This Minor Modification (MMOD) rewired the internal circuitry of Fire Panel FP-CP-409 such that a trouble condition within the panel itself (i.e. loss of primary power) would be annunciated in the Main Control Room.

PURPOSE: The original design provided local indication at the panel of trouble conditions within Fire Panel FP-CP-409. The MMOD was implemented to provide Control Room annunciation of trouble conditions within Fire Panel FP-CP-409.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect the FSAR in that the text, figures and tables in the FSAR did not require changes. Electrical equipment in the Fire Protection System is not designated Class 1E. The safety evaluation determined that this change to panel trouble detection circuitry would not alter the function or operation of the Fire Protection System and would not adversely affect safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 90-669

TITLE: Fuseblock Insulator Installation

SUMMARY DESCRIPTION: This Minor Modification (MMOD) installed glass epoxy insulators beneath two types of fuseblocks utilized in the Isolation Relay Cabinet and the Main Steam Isolation Valve (MSIV) Logic Cabinets.

PURPOSE: The MMOD was implemented in response to the recommendations of the Cabinet manufacturer to correct a potential problem. The manufacturer's letter described the possibility of arcing or current leakage from the fuse clip on the assembly to the structure on which these type of fuseblocks are mounted.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect FSAR in that the text, figures and tables in the FSAR did not require changes. The affected Cabinets are designated Class 1E equipment. The safety evaluation determined that the added insulators conformed to applicable design criteria and would not affect the operation or function of any equipment or system. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 90-670

TITLE: Waste Processing Building (WPB) Waste Solidification Area Supply Fan Motor Replacement

SUMMARY DESCRIPTION: This Minor Modification (MMOD) replaced the electrical motor for the WPB Solidification Area Supply Fan with a motor manufactured by a different vendor and having slightly different operating parameters than those of the original motor. The MMOD evaluated the application of the new motor, provided new electrical protection setpoints and updated the affected drawings.

PURPOSE: The original electrical motor had failed; but an identical replacement was not available. The purpose of the MMOD was to provide the engineering basis for an equivalent replacement.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect the FSAR in that the text, figures and tables in the FSAR did not require changes. The replacement electric motor is designated non-safety related and non-seismic. The WPB Solidification Area Supply Fan does not perform a safety-related function and does not affect safety-related equipment. The safety evaluation determined that the replacement motor was the same as the original in terms of fit, form and function. The replacement motor did not change fan performance or operation of the WPB Ventilation System in any way that would affect the analysis or conclusions of the FSAR. Therefore, the replacement motor was determined to be an acceptable replacement for this application. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 90-672

TITLE: Appendix R Report Revision

SUMMARY DESCRIPTION: This Minor Modification (MMOD) updated the Seabrook Station Fire Protection of Safe Shutdown Capability (Appendix R) Report. The Appendix R Report was also updated to include manual operation of the Fire Protection water supply to the Service Air Compressors. This was a document change only; no physical changes to equipment were made.

PURPOSE: A postulated fire in the B Train Switchgear Room could theoretically disable the motor-driven and the turbine-driven Emergency Feedwater Pumps. In the event of such a fire, the Start-up Feedwater Pump and its support equipment is available to provide emergency feedwater. The Appendix R Report was revised to account for the consequences of a postulated fire in B Train Switchgear Room.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the MMOD made document changes affecting the Appendix R Report, which is part of the FSAR. The safety evaluation determined that the document changes did not affect the function or operation of the affected systems or other safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 90-110

MINOR MODIFICATION: Number 90-674

TITLE: Demineralized Water (DM) and Instrument Air (IA) for the Temporary I&C Hot Shop

SUMMARY DESCRIPTION: A modified construction office trailer located just east of the Fuel Storage Building (FSB) is being utilized as a Temporary "Hot" I&C shop. This MMOD modified the DM and IA Systems in the FSB and provided two penetrations through the wall of the FSB to provide for the passage of two 1 inch pipes, one for demineralized water and the other for instrument air service to the Temporary Hot I&C Shop. This MMOD also documented a safety evaluation for the Temporary Hot I&C Shop itself.

PURPOSE: The purpose of the MMOD was to provide demineralized water and instrument air services to the Temporary Hot I&C Shop, and to document a safety evaluation for the Temporary Hot I&C Shop itself.

SAFETY EVALUATION SUMMARY: Two safety evaluations were performed for this MMOD. The first safety evaluation pertained to the modifications to the DM and IA Systems and the FSB wall. The safety evaluation applicability review determined that the modifications did not directly affect the FSAR in that the text, figures and tables in the FSAR did not require changes. The DM and IA Systems in the FSB are designated as non-safety class, Seismic Category 1. The FSB wall is a Seismic Category 1 structure and functions as a safety-related ventilation boundary. The safety evaluation determined that the two pipe penetrations in the FSB east wall did not impact fuel handling equipment, the fuel handling process or the ability of the FSB Air Cleaning System to maintain the required negative pressure. This modification is an enhancement to facility design. The safety evaluation also determined that the piping modifications to the DM and IA Systems did not adversely affect these systems or impact safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

The second safety evaluation pertained to the Temporary Hot I&C Shop itself. The safety evaluation applicability review determined that the addition of a Temporary Hot I&C Shop did not directly affect the FSAR in that the text, figures and tables in the FSAR did not require changes. The Temporary Hot I&C Shop is a refurbished and modified construction trailer located within the plant protected area. Access to and from the Temporary Hot I&C Shop is through the east FSB door and via an enclosed walkway. The Temporary Hot I&C Shop is a radiologically-controlled area. The safety evaluation applicability review determined that all features of the Temporary Hot I&C Shop were consistent with applicable descriptions and commitments of the FSAR. The safety evaluation determined that the Temporary Hot I&C Shop did not adversely impact safety-related structures, systems or components. The safety evaluation concluded that the addition of a Temporary Hot I&C Shop did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-505

TITLE: Fuel Handling Tool Structural Modifications

SUMMARY DESCRIPTION: This Minor Modification (MMOD) made three changes to the Fuel Transfer System Design. It re-mounted the Rod Cluster Control (RCC) changing tool support bracket at a higher elevation. It lengthened the emergency pull cable for the fuel transfer drive system. Finally, it removed the comb lock assemblies from the burnable poison rod assembly (BPRA) handling tool.

PURPOSE: The higher mounting elevation of the RCC change fixture support bracket ensured that fuel movement and HVAC operation, and refueling pool water surface ripple would not cause moisture to enter the tool motor housing. The extended length of the emergency pull cable improved its accessibility from the Fuel Storage Building (FSB), elevation 25 ft. Removal of the comb lock assemblies from the BPRA handling tool improved the performance of that tool.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications made changes to the facility as described in the FSAR and identified the affected FSAR Figures. The RCC change fixture support bracket is designated non-Safety Class, Seismic Category 1. The fuel transfer drive system emergency pull cable is designated non-Safety Class. The safety evaluation determined that the modifications did not alter the function or operation of the affected equipment and did not affect safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 91-019

MINOR MODIFICATION: Number 91-510

TITLE: Inverter 1-2A DC Feed Undervoltage Relay Allowable Operating Value

SUMMARY DESCRIPTION: Technical Specifications require that the operation of the inverter supplying the Main Plant Computer System (MPCS) be limited to a maximum of fifteen minutes when fed from its DC source on loss of its battery charger. In order to fulfill this requirement, an undervoltage relay senses battery discharge, and a timing relay trips the circuit breaker feeding the computer inverter. This Minor Modification (MMOD) provided the engineering basis for the undervoltage relay setpoint of 125 VDC and the timing relay setpoint range of between 12.55 and 14.45 minutes. The relay setpoints were unchanged.

PURPOSE: The purpose of the MMOD was to document the engineering basis for the undervoltage and timing relay setpoints.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the setpoints did not directly affect FSAR in that the text, figures and tables in the FSAR did not require changes. The affected relays are designated Class 1E. The safety evaluation determined that the MMOD did not involve physical, functional or performance changes to equipment. The setpoints remain unchanged; the MMOD simply documents the sound, engineering basis for the setpoints. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-512

TITLE: Fire Protection Pump Instrumentation Changes

SUMMARY DESCRIPTION: This Minor Modification (MMOD) provided several instrumentation and control changes affecting Fire Protection System equipment and documentation. Hardware changes include revised alarm and control switch setpoints affecting the Fire Pumps and the Fire Storage Tank freeze protection. Document changes included the correction of information discrepancies between design documents.

PURPOSE: The purpose of the MMOD was to provide resolution to several Fire Protection System instrumentation and control concerns and to provide the basis for setpoint and documentation changes.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications made changes to the facility as described in the FSAR and identified the affected FSAR Section. The Fire Protection System is designated as non-Safety Class. The revised setpoints met the requirements of applicable codes and/or regulatory references and did not affect safety-related equipment. The safety evaluation determined that the modifications did not compromise the performance of Fire Protection System equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 91-027

MINOR MODIFICATION: Number 91-519

TITLE: Steam Piping Upgrade

SUMMARY DESCRIPTION: This Minor Modification (MMOD) replaced a carbon steel elbow in the 16 inch extraction steam line with an elbow fabricated from chrome-molybdenum steel. The MMOD also replaced piping downstream of Main Steam condensate drip leg flow restriction orifices with piping fabricated from erosion-resistant, stainless steel.

PURPOSE: The modified piping and elbow were fabricated from materials which are resistant to erosion caused by wet steam flow. The materials conform to the requirements for erosion/corrosion contained in EPRI Report NP-3944.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect the FSAR in that the text, figures and tables in the FSAR did not require changes. The affected piping and elbow are designated as non-Safety Class. The safety evaluation determined that the modifications enhanced the Extraction Steam System integrity by providing a more erosion/corrosion-resistant material. The modifications did not affect safety-related equipment and did not change the form or function of the Extraction Steam System. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-526

TITLE: Large Bore Hydraulic Snubber Modification

SUMMARY DESCRIPTION: This Minor Modification (MMOD) provided two manufacturer-recommended enhancements to 1000 kip hydraulic snubbers used on the steam generators. The first enhancement was the addition of a carbon steel spacer to the packing assembly. The second was the removal of unneeded tubing between the snubber body and fluid reservoir.

PURPOSE: The carbon steel spacer provided additional support for the packing. Elimination of the unneeded tubing significantly reduced the quantity of snubber fluid that would be spilled during chevron packing replacements.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect the FSAR in that the text, figures and tables in the FSAR did not require changes. The affected snubbers are designated as Safety Class 1 Component Supports. The modifications did not affect the function, load capacity or design basis of the affected snubbers. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-029

TITLE: Feedwater Check Valves Internals Modifications

SUMMARY DESCRIPTION: This Minor Modification (MMOD) modified the internals of Main Feedwater System check valves FW-V330, FW-V331, FW-V332 and FW-V333. The number of 3/8 inch diameter bolts holding the dash plate/retainer ring assembly was doubled from eight to sixteen. The dash plate assembly was also modified to ensure that the disc did not impose impact loads on the dash plate.

PURPOSE: Following an outage in April 1991, plant full power could not be restored due to limited feedwater flow. Investigation revealed that one of the four feedwater check valves was not opening properly. Disassembly of this check valve revealed that the disc was jammed in the nearly-closed position and seven of the eight dash plate/locking ring attachment bolts were broken. Inspection of the other three check valves revealed additional broken bolts. This MMOD increased the number of dash plate/locking ring attachment bolts such that the total number of bolts would be capable of withstanding postulated differential pressure loads across the disc and dash plate. This MMOD was implemented prior to return to power following the April 1991 outage. This MMOD was followed up by DCR 91-035 which is summarized on page 44.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modification did not directly affect the FSAR in that the text, figures and tables in the FSAR did not require changes. The safety evaluation determined that the safety function of the feedwater check valves is a controlled closing function. The MMOD did not affect this safety function. It also did not affect the opening stroke. The conservative redesign increased the number of bolts and consequently reduced individual bolt stress. This modification was expected to eliminate further instances of bolt failure due to forces that occur during opening. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-531

TITLE: Door W400 Modifications

SUMMARY DESCRIPTION: This Minor Modification (MMOD) modified the design of the connections for Door W400, a twin leaf, dutch style, tornado-resistant, bullet resistant, alarmed door between the Primary Auxiliary Building (PAB) and a forty-five foot walkway leading to the Waste Processing Building (WPB).

PURPOSE: A monorail passes through this door. The monorail is used during maintenance periods. The door modifications repaired damaged bolted fasteners and enhanced future maintenance activities by facilitating a more simplified procedure for door breakdown and re-assembly.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect FSAR in that the text, figures and tables in the FSAR did not require changes. The affected door is designated safety-related, Seismic Category 1. The safety evaluation determined that the modified connections did not alter the original design requirements and function of the door. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-537

TITLE: Replacement of Positioner on Feedwater Control Valves

SUMMARY DESCRIPTION: This Minor Modification (MMOD) replaced the obsolete positioners on the four Main Feedwater Control Valves. The replacement positioners are updated models. The MMOD also changed details of air supplies to the positioners.

PURPOSE: This MMOD upgraded the Main Feedwater Control Valves' positioners to improve positioner reliability and spare parts support.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect FSAR in that the text, figures and tables in the FSAR did not require changes. The affected positioners are designated non-safety-related and non-seismic. The safety evaluation determined that the modification did not affect the fit, form or function of the positioner. Three of the main feedwater control valves are assumed in the FSAR to close in response to a feedwater isolation signal, and one valve is assumed to fail in the open position. This modification was determined to not affect that assumption. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-538

TITLE: Door and Access Barrier for Detector Storage Area in the Fuel Storage Building.

SUMMARY DESCRIPTION: This Minor Modification (MMOD) provided a wire mesh, lockable door and barrier in the Fuel Storage Building.

PURPOSE: The lockable storage area was provided to store a shielded pig containing irradiated moveable neutron detectors and spare neutron detectors.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications made minor changes to the facility as described in the FSAR and identified the affected FSAR Figure. The door and barrier are designated non-Safety Class, Seismic Category 1. The safety evaluation determined that the modification did not impact equipment important to safety. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

FCR 91-039

MINOR MODIFICATION: Number 91-545

TITLE: Technical Support Center (TSC) Emergency Lighting

SUMMARY DESCRIPTION: This Minor Modification (MMOD) reclassified the TSC essential lighting circuits to emergency lighting circuits and electrically powered them from an uninterruptable power supply (UPS) inverter. The increased load to non-safety battery 2B, which provides backup power to the inverter, was evaluated to be within the design margin. The MMOD also made other necessary and related electrical changes.

PURPOSE: This MMOD upgraded the power supply to the TSC lighting circuits to ensure lighting of the TSC in the event of a Station Blackout (loss of all AC power).

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect FSAR in that the text, figures and tables in the FSAR did not require changes. The affected lighting circuits are designated non-nuclear safety. The safety evaluation determined that the modification did not increase the loading of non-safety battery 2B beyond its design capacity and did not impact equipment important to safety. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-553

TITLE: Snubber Elimination

SUMMARY DESCRIPTION: This Minor Modification (MMOD) eliminated two snubbers: one originally installed on an 8 inch Residual Heat Removal (RHR) line and the other originally installed on a 24 inch Service Water (SW) line.

PURPOSE: Piping stress re-analysis has shown that stresses in the piping and remaining supports with the affected snubbers removed remain within allowable limits established by applicable design Codes. Removal of the snubbers would result in reduced maintenance requirements, reduced personnel exposure to radiation while performing maintenance, and increased plant reliability by elimination of a component which could fail.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect FSAR in that the text, figures and tables in the FSAR did not require changes. The affected snubbers were designated safety-related, Seismic Category 1. The safety evaluation determined that the modification did not alter the function or design basis of the affected systems. The modification was an overall design enhancement since the snubbers were not needed; and their removal eliminated the consequences to the facility of their potential failure. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-554

TITLE: Fuel Pool Material Storage Locking Device

SUMMARY DESCRIPTION: This Minor Modification (MMOD) provided a design for a lockable mounting device from which radioactive material could be suspended on an "arm" for underwater storage in either the Spent Fuel Pool or the Reactor Cavity or both. Several of these mounting devices have been mounted at the perimeter edge of the Spent Fuel Pool but none have been mounted in the Reactor Cavity. At present, no material is being stored using these devices. The locks, when used, will be under the control of the Health Physics Department.

PURPOSE: The lockable mounting device was designed to provide a means, if needed in the future, of safely storing highly radioactive objects such as fasteners or filters. Underwater storage would ensure the appropriate shielding. Storage locations anticipated by the design are the Spent Fuel Pool and/or the Reactor Cavity. The locking device is to ensure that the radioactive objects requiring underwater storage are not inadvertently raised or removed from water depths necessary to provide the required amount of radiation shielding.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect FSAR in that the text, figures and tables in the FSAR did not require changes. The lockable mounting device is designated a non-Safety Class, active Seismic Category 1 component. The safety evaluation determined that the modification is an enhancement to facility design. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-558

TITLE: Maximum Torque Switch Setting for 1-SW-V54

SUMMARY DESCRIPTION: This Minor Modification (MMOD) increased the torque switch setting for Service Water System valve 1-SW-V54 to the maximum setting allowed by its limiter plate. The NHY Data Sheets for Motor and Air Operated Valves and Dampers were revised to reflect this change.

PURPOSE: The revised torque switch setting was determined by engineering calculations performed as part of the program responsive to NRC Generic Letter 89-10.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect the UFSAR in that the text, figures and tables in the UFSAR did not require changes. Service Water valve 1-SW-V54 is a Safety Class 3, active component. The safety evaluation determined that increasing the torque switch setting provided additional assurance that the valve would be capable of performing its safety function. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-566

TITLE: Modifications to the Fuel Transfer Drive System Components

SUMMARY DESCRIPTION: This Minor Modification (MMOD) modified equipment in the Fuel Transfer System. An extension was added to the driveshaft and a new bracket was installed to support the drive motor, gear reducer and Torq Gard unit. A new driveshaft key, fasteners, wiring changes and other miscellaneous items were included in the MMOD.

PURPOSE: As originally designed, the aluminum housings of the Torq Gard unit, a carbon steel key and carbon steel bushings would have been partly submerged when the refueling cavity was fully flooded for refueling. These materials should not be in contact with borated water. The MMOD revised the design of the fuel transfer drive unit to ensure that the aluminum and carbon steel components remained above the fully flooded refueling cavity water level.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect UFSAR in that the text, figures and tables in the UFSAR did not require changes. The fuel transfer drive components are designated non-Safety Class, Seismic Category 1. The safety evaluation determined that the replacement equipment would meet applicable design criteria and would not affect the operation of safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-568

TITLE: Modifications to the Residual Heat Removal (RHR) Vault Elevator

SUMMARY DESCRIPTION: This Minor Modification (MMOD) added minor structural enhancements to the enclosure and car of the RHR Vault elevator.

PURPOSE: The modifications were to ensure the structural integrity of the elevator enclosure and car. The enhancements were made in response to an elevator inspection performed by a representative of the State of New Hampshire.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect UFSAR in that the text, figures and tables in the UFSAR did not require changes. The safety evaluation determined that the modifications would meet applicable design criteria and would not affect the operation of safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-569

TITLE: First Refueling Outage Motor-Operated Valves

SUMMARY DESCRIPTION: This Minor Modification (MMOD) replaced the limiter plate set in the motor operator for valves CBS-V8 and CBS-V14, which connect the Containment Sump to the Residual Heat Removal (RH) and Containment Building Spray (CBS) Systems. It also provided the engineering basis to revise the NHY Data Sheets for Motor and Air Operated Valves and Dampers for these valves. Finally, it provided the engineering basis for miscellaneous other hardware and document changes affecting motor-operated valves.

PURPOSE: The hardware modifications and document changes were the result of implementing the NHY program responsive to NRC Generic Letter 89-10.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect the UFSAR in that the text, figures and tables in the UFSAR did not require changes. The Containment sump isolation valves are Safety Class 2 gate valves. The replaced limiter plate set and revised settings did not change the ability of the valves to operate as designed. The higher limiter plate setting allows the motor operators to produce a higher thrust output. Changing the limiter plates in the Containment sump isolation valves does not affect any other safety-related equipment. Updating NHY documentation defining motor-operated valve parameters based on calculations and other sources of information further ensures that the motor-operated valves will be capable of performing their design function. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-577

TITLE: Battery Rooms A & B Thermocouple Shield Termination Change

SUMMARY DESCRIPTION: This Minor Modification (MMOD) grounded the cable shields for the Control Building battery room temperature measurements to the Main Plant Computer System (MPCS).

PURPOSE: The computer manufacturer recommended that cable shields be left floating (ungrounded) at the field end. The MPCS Intelligent Remote Terminal Unit (IRTU) end has guard circuits designed to cancel interference. However, false computer alarms occurred due to electrical noise on these circuits. Therefore, the cable shield at the field end was grounded to eliminate the noise.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect the UFSAR in that the text, figures and tables in the UFSAR did not require changes. The temperature elements are not safety-related but are seismically mounted. The safety evaluation determined that the modification affects temperature indication only and not control or protective functions. The modification improved the reliability of the battery room temperature indication and alarm function. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-582

TITLE: Pressurizer Gas Sample Line Modification

SUMMARY DESCRIPTION: This Minor Modification (MMOD) replaced or isolated all Raychem "CryoFit" couplings installed on selected sampling and instrumentation tubing. CryoFit couplings installed in pressurizer and reactor coolant loop sample lines inside Containment, in pressurizer instrument tubing and in other, selected applications were replaced or isolated. Welded or compression type fittings were used as replacement couplings.

PURPOSE: During the first refueling outage, it was discovered that the CryoFit couplings installed in applications in which they could be exposed to high temperature and high hydrogen concentrations could fail. For more specific information on the background, details and resolution of Cryofit coupling issues at Seabrook Station, please refer to Docket No. 50-443, Licensee Event Report (LER) No. 91-010, Revision 01, dated October 2, 1991 (forwarded to the NRC via letter NYN-91160 dated October 2, 1991).

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications made minor changes to the facility as described in the UFSAR and identified the affected UFSAR Table and Figures. The affected sample and instrument tubing is Safety Class 2. The safety evaluation determined that the affected instrument and sample lines are not new; the modification only revised the method of joining the tubing segments. The replacement couplings (either welded or compression type) were acceptable, recognized couplings and were installed in accordance with applicable design requirements. The safety evaluation determined that the affected tubing could perform its designed functions with the replacement couplings. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

UFCR 91-063

MINOR MODIFICATION: Number 91-599

TITLE: Seismic Restraint of Diesel Generator Jacket Water Heat Exchanger Tube Storage/Shipping Containers

SUMMARY DESCRIPTION: This Minor Modification (MMOD) seismically anchored the Diesel Generator Jacket Water Heat Exchanger tube storage/shipping containers on the floor of the Primary Auxiliary Building (PAB), Elevation 53'. It also revised the design of a ladder and handrail serving the platform at Elevation 63'-4" (located above the storage/shipping containers).

PURPOSE: In anticipation of future replacement of the Diesel Generator Jacket Water Heat Exchanger tubes, the decision was made to store a replacement tube bundle for each heat exchanger in a storage/shipping container anchored to the floor of the PAB immediately east of each heat exchanger. Because of their length, the only way to get the tube bundles into the PAB was to pass them through the roof plugs for the PCCW heat exchangers. These roof plugs were open during the first refueling outage. This opportunity contributed to the decision to store the replacement tube bundles in the PAB. Modification of the ladder to the platform at Elevation 63'-4" was needed because of interference with a storage/shipping container. Modification of a handrail was done to facilitate movement of the storage/shipping containers.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect the UFSAR in that the text, figures and tables in the UFSAR did not require changes. The storage/shipping containers are not safety-related but are seismically anchored to ensure that they would be restrained and would not damage safety-related equipment during a seismic event. The safety evaluation determined that the replacement tubes in their storage/shipping containers were seismically restrained in accordance with the plant design basis; and that the modification would not adversely affect safety-related equipment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-604

TITLE: Modification of Main Steam Line Support MS-2 in Turbine Building

SUMMARY DESCRIPTION: This Minor Modification (MMOD) revised the design of the attachment for Main Steam Line Support MS-2. The MMOD removed the flange cover plate attached to the bottom flange of a structural beam in the Turbine Building, to which Support MS-2 was originally attached. A stiffener plate was added; and support MS-2 was re-attached to the beam.

PURPOSE: The flange cover plate, to which support MS-2 was originally attached, had yielded, rendering support MS-2 non-functional. The purpose of this modification was to remove the unneeded flange cover plate and re-attach support MS-2 to the structural beam in accordance with design requirements.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect the UFSAR in that the text, figures and tables in the UFSAR did not require changes. The Turbine Building structural steel is non-seismic and not safety-related. The safety evaluation determined that the modification replaced the existing design with an equivalent or better design, and would not adversely affect safety-related systems. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-609

TITLE: Primary Component Cooling Water (PCCW) Pump Discharge Check Valve Disc Anti-Rotation Lugs

SUMMARY DESCRIPTION: This Minor Modification (MMOD) added anti-rotation lugs to the internals of each PCCW Pump Discharge Check Valve.

PURPOSE: The purpose of this modification was to eliminate rotation of the valve discs and consequent wear of the disc mounting stud and hanger.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect the UFSAR in that the text, figures and tables in the UFSAR did not require changes. The PCCW Pump discharge valves are Safety Class 3 components. The safety evaluation determined that the anti-rotation lugs were a design enhancement which would help ensure that the PCCW Pumps function properly and would not adversely impact the proper operation of the PCCW System. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-610

TITLE: Reactor Coolant Drain Tank (RCDT) Pump Suction Line Vent

SUMMARY DESCRIPTION: This Minor Modification (MMOD) added a 3/4 inch vent line and an isolation valve to the RCDT Pumps' suction line downstream of check valve WLD-V54 in the Containment.

PURPOSE: The purpose of this modification was to permit venting of a high point in the RCDT Pumps' suction piping downstream of check valve WLD-V54. This piping high point could accumulate nitrogen gas used as cover gas for the RCDT. Nitrogen gas accumulating at this high point could be swept into the RCDT Pumps, causing gas binding.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modification made changes to the facility as described in the UFSAR and identified the affected UFSAR Figure. The affected Equipment and Floor Drainage System piping is non-nuclear Safety Class - Seismic Category I. The safety evaluation determined that the modifications complied with applicable codes and did not affect safety-related equipment The modifications would improve the reliability of the RCDT Pumps. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

UFCR 91-062

MINOR MODIFICATION: Number 91-611

TITLE: Revised Pipe Support

SUMMARY DESCRIPTION: This Minor Modification (MMOD) revised a pipe support for a 2 inch segment of Oil Collection (OC) piping in the Containment. The modification made the pipe support removable using a bolted connection.

PURPOSE: The purpose of this modification was to eliminate interference between the pipe support and the davit arm swing used to replace the seal cartridge of Reactor Coolant Pump 1B.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect UFSAR in that the text, figures and tables in the UFSAR did not require changes. The safety evaluation determined that the modified pipe support complied with original design requirements. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-612

TITLE: Meteorological Tower Base Modification

SUMMARY DESCRIPTION: This Minor Modification (MMOD) added an angle/plate assembly to the base of the Meteorological Tower.

PURPOSE: An inspection of the Meteorological Tower revealed significant erosion of the center pin which provides horizontal shear resistance. Replacement of the pin would require an extended tower outage. The purpose of the angle/plate assembly was to provide the required degree of horizontal restraint at the tower base without replacing the center pin, thus maintaining the tower in service.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect UFSAR in that the text, figures and tables in the UFSAR did not require changes. The safety evaluation determined that the modification was a structural enhancement which met applicable design criteria for this structure. The modification would not result in a change to the function or performance of the Meteorological Tower. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-613

TITLE: Diesel Generator Reverse Power Relay Wiring Change

SUMMARY DESCRIPTION: This Minor Modification (MMOD) corrected the schematic diagrams for the Diesel Generator protective circuits which incorrectly depicted the wiring connections for reverse power relays.

PURPOSE: The purpose of the MMOD was to correct the schematic drawings for the Diesel Generator protective circuits as committed to in the Diesel Generator Special Report (NYN-91156) dated September 25, 1991. The connections for the reverse power relays were not in agreement with the vendor instruction manual. Proper functioning of the protective circuit was achieved by reversing two connections in the relay. Relay modification was authorized by an Engineering Change Authorization (ECA) during initial construction. However, when the modified reverse power relay for Diesel Generator 1A was replaced by an unmodified relay from inventory, a trip of the Diesel Generator occurred during post-maintenance testing. This trip was the subject of the above-referenced Special Report.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect UFSAR in that the text, figures and tables in the UFSAR did not require changes. The safety evaluation determined that the modification would not result in a change to the function, performance, protection or control of the Diesel Generator. The modification was to restore the wiring to that specified by original design. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-615

TITLE: Cooling Tower Portable Pump Relocation

SUMMARY DESCRIPTION: This Minor Modification (MMOD) redesignated the storage location for the diesel engine-driven Cooling Tower basin portable make-up pump and associated equipment (hose and strainer) from the Cooling Tower Unit 2, Train A switchgear room to the Service Water Pumphouse.

PURPOSE: The purpose of re-designating the storage location for the Cooling Tower basin portable make-up pump and associated equipment was to clear the Cooling Tower Unit 2, Train A switchgear room for use as a temporary storage location for dry, activated, low level radioactive waste. (A safety evaluation for the temporary storage of dry, activated waste in the Unit 2 Cooling Tower is summarized on page 170 of this report.)

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect UFSAR in that the text, figures and tables in the UFSAR did not require changes. The new storage location for the Cooling Tower basin portable make-up pump met the requirement that it be designated Seismic Category I. The safety evaluation determined that the relocated storage location for the Cooling Tower basin portable make-up pump would not reduce the pump's ability to perform its function as described in the UFSAR. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-617

TITLE: Main Generator Current Transformer (CT) Support Hardware Enhancement

SUMMARY DESCRIPTION: This Minor Modification (MMOD) added a washer and nut set to each Main Generator CT mounting connection; and specified the torque range.

PURPOSE: The purpose of the revised CT support hardware was to reduce the potential for damage to the CTs from vibration.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect UFSAR in that the text, figures and tables in the UFSAR did not require changes. The Main Generator is non-safety-related; and the modifications did not affect safety-related equipment. The safety evaluation determined that enhanced support hardware exceeded the original design requirements and reduced the potential for failures. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-618

TITLE: Support Modification for Weld Radiography Accessibility

SUMMARY DESCRIPTION: This Minor Modification (MMOD) replaced a wall-mounted pipe support for a 3 inch segment of Chemical and Volume Control System (CS) piping with a modified pipe support. The support and pipe segment were located in a concrete pipe enclosure in the Primary Auxiliary Building (PAB). The MMOD also provided a wall opening in the concrete pipe enclosure. A lead shield retainer was provided to plug the wall opening after completion of radiography.

PURPOSE: The pipe support was removed and the wall opening was made to facilitate weld radiography of a field weld in the 3 inch, CS pipe. The radiography was part of the Weld Record Re-verification Program. The pipe support was modified to simplify re-installation.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect UFSAR in that the text, figures and tables in the UFSAR did not require changes. The safety evaluation determined that the pipe support revised design met original design requirements. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-620

TITLE: Replacement of Reactor Coolant Pump (RCP) Undervoltage and Underfrequency Relays

SUMMARY DESCRIPTION: This Minor Modification (MMOD) provided the engineering basis to replace the underfrequency time delay relay for RCP 1B with an identical relay obtained from the RCP 1B undervoltage detection circuit and to replace the RCP 1B undervoltage time delay relay with a relay of the same type, but different catalog number and having an adjustable range.

PURPOSE: The underfrequency time delay relay for RCP 1B (Agastat Type 7022PJ) was defective and required replacement. An identical relay was installed in the undervoltage detection circuit, and became the replacement. An Agastat Type E7022PA had been evaluated by MMOD 90-508 as acceptable for use as the undervoltage time delay relay. The parts substitutions were made to utilize existing stock.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect the UFSAR in that the text, figures and tables in the UFSAR did not require changes. The replacement relays were environmentally and seismically qualified and met the functional and qualification requirements of the applications. The setpoints of the time delay relays and the maximum allowable response times of the circuits were unchanged by the MMOD. The safety evaluation determined that the replacement relays were acceptable for the applications. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

MINOR MODIFICATION: Number 91-625

TITLE: Demineralized Water/Radiation Monitoring Skid Isolation

SUMMARY DESCRIPTION: This Minor Modification (MMOD) added spectacle flanges in the demineralized water purge supply lines for three radiation monitor skids: the reactor coolant gross activity monitor, the Boron Waste Storage Tank Inlet Activity monitor and the Auxiliary Steam Condensate monitor.

PURPOSE: The purpose of the spectacle flanges was to preclude backflow from a radioactive or potentially radioactive process stream to the Demineralized Water System during normal radiation monitor operation.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications made changes to the facility as described in the UFSAR and identified the affected UFSAR Figures. The affected Demineralized Water System piping is non-nuclear Safety Class. Piping to the reactor coolant gross activity monitor is seismic Category I. The safety evaluation determined that the modifications did not affect safety-related equipment and improved the margin of protection against inadvertent, radioactive contamination of the Demineralized Water System. The modifications slightly increased the potential for minor leakage of radioactive fluid from process piping to the buildings in which the radiation monitors are located. This potential, minor release could occur as a result of rotating the spectacle flanges prior to purging operations. However, this potential radioactive leakage would be contained and would be well within the limits analyzed in the UFSAR. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

UFCR 91-069

MINOR MODIFICATION: Number 91-626

TITLE: Turbine Building Sump High Radiation Trip

SUMMARY DESCRIPTION: This Minor Modification (MMOD) changed the control logic of the Turbine Building Sump Pumps such that a high radiation level detected in the common discharge line to the oil/water separator vault would provide a pump trip "seal-in."

PURPOSE: The pump trip "seal-in" feature prevents automatic pump restart following clearance of a high radiation trip until the operator resets the seal-in. This modification prevented sump pump cycling in response to radiation monitor "spike" trip signals and possible release of radioactive fluid to the oil/water separator vault following receipt of a high radiation trip.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this MMOD. The safety evaluation applicability review determined that the modifications did not directly affect the UFSAR in that the text, figures and tables in the UFSAR did not require changes. The Turbine Building Sumps and Sump Radiation Monitor are not nuclear safety-related; and the modification did not affect safety-related equipment. The safety evaluation determined that the modifications did not increase the potential for release of radioactivity to the environment. The safety evaluation concluded that the MMOD did not create an unreviewed safety question.

2. Temporary Modifications

The following temporary modifications were implemented at Seabrook Station pursuant to the requirements of 10CFR50.59.

TEMPORARY MODIFICATION: Number 91-006

TITLE: Cross-connection between Containment Service air Instrument Air

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) installed a jumper to cross-connect the Containment A and B instrument air headers; and provided a temporary supply line to the Containment A and B instrument air headers from the Containment Service Air Header through a temporary filter manifold and air dryer.

PURPOSE: The Containment Instrument Air System consists of two independent air headers, each supplied by its own air compressor and air dryer. Cooling water to the Containment Air Compressors is provided by the Primary Component Cooling Water (PCCW) System and was unavailable during the first refueling outage due to the re-tubing of the PCCW heat exchangers. The purpose of the temporary cross-connect and air supply for the Containment instrument air headers was to maintain instrument air pressure to control the Containment Air Purge (CAP) isolation valves, Containment Air Handling (CAH) dampers and other components requiring instrument air for proper operation during the period of unavailability of the Containment Air Compressors. The TMOD provided backup to one Containment Air Compressor and header during Modes 5 and 6 and provided the sole source of Containment instrument air when the reactor core was off-loaded to the spent fuel pool.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Sections. The Containment Instrument Air System is a non-safety-related system. The safety evaluation determined that the TMOD could provide clean, dry air to maintain proper operation of components served, and that during the period of dependence on this TMOD, Containment isolation capability could be maintained as required. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION Number 91-008

TITLE: Steam Generator Blowdown (SB) Demineralizer Drain Valves

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) installed a drain valve between the two isolation valves in each SB mixed bed demineralizer outlet line. The drain lines were open drains to the Waste Holdup Sump.

PURPOSE: The purpose of the TMOD was to provide a means of directing leakage of regenerant chemicals past the first outlet isolation valve of each demineralizer to the Waste Holdup Sump. This TMOD will reduce the possibility that regenerant chemicals will enter the SB process stream. The intent is to maintain this TMOD in place until it is made permanent by a design modification.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Figure. The SB demineralizers are non-safety-related equipment. The safety evaluation determined that the TMOD was a design enhancement which would not adversely affect proper operation of SB components. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-009

TITLE: Temporary 480 Volt AC Power to Containment Power panel ED-PP-7A and Lighting Panel L18

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) installed a temporary electrical power cable from Unit Substation US-23 to Unit Substation US-11 and a temporary cable between Containment Building Power Panel ED-PP-7A and Lighting Transformer ED-X-16E.

PURPOSE: The purpose of the two temporary power cables was to provide a temporary source of 480 VAC electrical power to Containment Building Power Panel ED-PP-7A and Lighting Panel L18 during a preventive maintenance outage period for US-11, the normal power source for these panels.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications did not directly affect the FSAR in that the text, figures and tables in the FSAR did not require changes. The electrical equipment affected by this TMOD is non-safety-related. The safety evaluation determined that the affect of the added electrical load on US-23 and ED-PP-7A was acceptable. The temporary electrical configuration met original design requirements regarding capacity and circuit breaker coordination. External routing of temporary cable precluded potential circuit independence concerns. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-010

TITLE: Temporary Power to Non-vital Battery Chargers ED-BC-2A and ED-BC-2B

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) provided temporary 480 VAC power to non-vital battery chargers ED-BC-2A and ED-BC-2B.

PURPOSE: The purpose of the TMOD was to maintain non-vital battery chargers ED-BC-2A and ED-BC-2B in operation during a maintenance outage of 4160 volt Bus 5 which powers MCC E523, the normal power supply for these chargers. The TMOD would be in place only during Mode 6.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Figure. The affected equipment is non-safety-related. The safety evaluation determined that the TMOD would not create a safety concern because the reactor core would be offloaded to the spent fuel pool, the alternative source of power was very reliable and the TMOD would be in effect for a short time. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-011

TITLE: Temporary Power to Motor Control Centers (MCCs) E513 and E514

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) provided temporary 480 VAC power to MCCs E513 and E514 from MCCs 111 and 271.

PURPOSE: The purpose of the TMOD was to maintain MCCs E523 and E514 in operation during the maintenance outage of 4160 volt Bus 5, the normal power supply for these MCCs. Maintaining MCCs E513 and E514 in operation maintained security and fire protection loads fed from these MCCs energized. The TMOD would be in place only during Mode 6.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Figure. The affected equipment is non-safety-related. The safety evaluation determined that the TMOD would not create a safety concern because the reactor core would be offloaded to the spent fuel pool, and the TMOD would be in effect for a short time. Fire protection panels are provided with a battery backup feature. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-012

TITLE: Temporary Power to Fire Protection Control Panels

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) provided temporary 120 VAC power to fire protection control panels normally powered from distribution panels supplied by 4160 Volt Bus E5.

PURPOSE: The purpose of the TMOD was to maintain electrical power to fire protection control panels during a maintenance outage of 4160 volt Bus E5 which is the normal power supply for these panels. The TMOD would be in place only during Mode 6.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Figure. The affected equipment is non-safety-related. The safety evaluation determined that the TMOD would not create a safety concern because the reactor core would be offloaded to the spent fuel pool, and the TMOD would be in effect for a short time. In the event of loss of the temporary power source, the battery backup feature would allow the fire protection control panel to perform its function. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-013

TITLE: Temporary Electrical Power for Seismic Monitoring Panel SM-CP-58

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) provided a temporary non-vital source of 120 VAC electrical power to Seismic Monitoring Panel SM-CP-58. This TMOD was in place during Mode 6 with the reactor core off-loaded to the spent fuel pool.

PURPOSE: This TMOD provided a temporary, non-vital source of 120 VAC electrical power to Seismic Monitoring Panel SM-CP-58 during the outage of power panel 1-ED-PP-1E, its normal source of 120 VAC power. Seismic Monitoring Panel SM-CP-58 provides power to seismic monitoring instrumentation that is required by Technical Specifications to be operable at all times. The Seismic Monitoring System was declared inoperable during the time this TMOD was in place because it was being supplied by a non-vital source of 120 VAC power. However, the Seismic Monitoring System was operating; and the intent of the applicable Technical Specifications was met during the maintenance outage of power panel 1-ED-PP-1E.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Sections. The affected circuits are designated Class 1E. The safety evaluation determined that use of the temporary non-vital source of 120 VAC power to Seismic Monitoring Panel SM-CP-58 was acceptable considering the short duration of time it would be in place and the fact that the plant would be in Mode 6 with the reactor core defueled. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-015

TITLE: Temporary Electrical Power for the Emergency Diesel Generator 1A Barring Device

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) provided a temporary non-safety-related source of 480 VAC electrical power to the barring device for the Emergency Diesel Generator 1A.

PURPOSE: This TMOD permitted operation of the barring device to rotate the shaft of Emergency Diesel Generator 1A while the normal source of power to the barring device (MCC E511) was de-energized as the result of the outage of 4160 volt Bus 5. Rotation of the shaft of Emergency Diesel Generator 1A was required to set tolerances as part of the process of overhauling this machine.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Sections. The barring device and its normal power supply are designated non-safety-related. The safety evaluation determined that there would not be a safety concern because the plant would be in Mode 6 with the reactor core defueled, and Emergency Diesel Generator 1A would be under overhaul. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-024

TITLE: Temporary Power to Unit Substation ED-US-16

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) provided temporary 480 VAC power to Unit Substation ED-US-16 from an off-site source.

PURPOSE: The purpose of the TMOD was to maintain electrical power to Administration Building loads during the maintenance outage of Bus 1. The TMOD would be in place only during Mode 6.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Figure. The affected electrical equipment is non-safety-related. The safety evaluation determined that the TMOD would not create a safety concern because the loads were lighting and convenience loads not related to safe equipment operation. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-025

TITLE: Temporary Power to Fire Protection Control Panels

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) provided temporary 120 VAC power to fire protection control panels normally powered from distribution panels supplied by 13.8 KV Bus 1.

PURPOSE: The purpose of the TMOD was to maintain electrical power to fire protection control panels during the maintenance outage of Bus 1. The TMOD would be in place only during Mode 6.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Figure. The affected equipment is non-safety-related. The safety evaluation determined that the TMOD would not create a safety concern because the reactor core would be offloaded to the spent fuel pool, and the TMOD would be in effect for a short time. In the event of loss of the temporary power source, the battery backup feature would allow the fire protection control panel to perform its function. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-033

TITLE: Temporary Cooling Water for Safety Injection and Charging Pumps

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) installed temporary valves, pipe fittings and hoses to supply demineralized water to the oil coolers of the Charging and Safety Injection Pumps. It also temporarily re-routed the outlets from these coolers to floor drain systems for discharge to the liquid waste disposal system.

PURPOSE: The purpose of the temporary supply of demineralized water to the oil coolers of the CS and SI pumps was to provide the needed cooling water to permit operation of the pumps for testing. During the first refueling outage, modifications to the Primary Component Cooling Water (PCCW) System (the normal source of cooling water for these oil coolers) rendered it unavailable as a source of cooling water.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Sections. The Safety Injection and Charging Pumps affected by this TMOD are Safety Class 2. The safety evaluation determined that the temporary modifications would be in effect only when the reactor core was fully offloaded to the Spent Fuel Pool; thus the affected pumps would not be providing a safety function while operating under temporary cooling. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-035

TITLE: Elimination of Funnels from the Drains of Chemical and Volume Control (CS) and Spent Fuel (SF) Filter Drain Lines

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) removed open entrant funnels from the drain manifold for several filters in the CS and SF Systems. The drain connections of these filters were connected either to the common drain header or directly to floor drains of the Waste Liquid (WL) System with transparent flexible tubing secured with hose clamps. The discharge of the drain manifold was also connected to floor drains of the Waste Liquid (WL) System with transparent flexible tubing secured with hose clamps. It is intended to make this temporary modification permanent by future implementation of Minor Modification (MMOD) 91-507.

PURPOSE: The purpose of this temporary modification was to prevent splashing of radioactive liquid onto adjacent surfaces and thus help eliminate radioactive contamination during draining and venting while retaining the capability to visually observe the liquid discharge.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Sections. The piping affected by this TMOD is designated non-nuclear safety class, Seismic Category 1. The safety evaluation determined that the temporary modifications would not affect the design function of the filter drain lines to route drainage to the WL System. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-036

TITLE: Lifted Leads to Primary Component Cooling Water (PCCW) Flow Switches

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) lifted leads in the control circuit for the Containment Cooling Fans. The lifted leads are associated with PCCW flow switches which provide a permissive function for Containment Cooling Fan operation.

PURPOSE: The purpose of this temporary modification was to permit operation of the Containment Cooling Fans in the absence of PCCW flow to recirculate air through the Containment during the first refueling outage to improve habitability and help reduce ambient temperatures.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Sections. The Containment Cooling Fans are designated non-safety related. The safety evaluation determined that operation the Containment Cooling Fans without PCCW flow would not adversely affect performance. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-037

TITLE: Cross-connection Between Circulating Water (CW) and Service Water (SW)

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) provided a cross connection between the CW System and the SW System to supply cooling water to the Secondary Component Cooling (SCC) heat exchangers during the period of outage of the Primary Component Cooling Water (PCCW) System. The cross connection was made with fire hoses.

PURPOSE: The purpose of this temporary modification was to supply cooling water to the Secondary Component Cooling (SCC) heat exchangers during the period of outage of the Primary Component Cooling Water (PCCW) System, the normal supply of cooling water.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Sections. The SCC System is designated non-nuclear safety class. The safety evaluation determined that the TMOD did not affect safety related equipment, was not located in a safety-related area, and the affected equipment would be restored to the original configuration prior to attaining Mode 4 following the first refueling outage. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-040

TITLE: Removal of Carrier Blocking Signal from the System 1 Protection Scheme for the Scobie Line

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) removed the coupling capacitor voltage transformer (CCVT) from the "B" phase of the 345 KV transmission line from Seabrook Station to Scobie Pond (the Scobie line). It also turned off the carrier transmitter for the Scobie line. These modifications effectively removed the carrier blocking signal from one of the two independent protective relay systems (System 1).

PURPOSE: This temporary modification was performed because the CCVT failed; and no suitable replacement CCVT was immediately available.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Sections. The affected transmission line and equipment designated non-safety-related. The safety evaluation evaluated the consequences of operating without the blocking signal and determined that, in all cases, offsite power would still be available to Seabrook Station through the Reserve Auxiliary Transformers (RATs). The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-041

TITLE: Temporary Electrical Power for Isolation System Cabinet FS9.

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) provided a temporary non-safety-related source of 120 VAC electrical power to Isolation System Cabinet FS9.

PURPOSE: By maintaining power to Isolation System Cabinet FS9, this temporary modification maintained the ability to reset, silence and acknowledge a group of Control Room hard-wired annunciator alarms during the maintenance outage of Uninterruptable Power Supply (UPS) 1E, the normal source of power to Isolation System Cabinet FS9.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Sections. The affected circuits are designated safety-related. The safety evaluation determined that there would not be a safety concern because the plant would be in Mode 6 with the reactor core defueled. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-042

TITLE: Temporary Chemical Addition Line for Feedwater System

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) installed a temporary chemical addition line to the suction flange of Steam Generator Wet Layup Pump 1-FW-P-293.

PURPOSE: This temporary modification provided the ability to maintain Feedwater System water chemistry during draining and maintenance of the Feedwater System.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Figure. The affected pump is designated non-safety-class and is installed in the non-safety class portion of the Feedwater System. The safety evaluation determined that the chemical addition line did not interact with any equipment important to safety. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-044

TITLE: Jumpers in the Control Circuits for Steam Generator Blowdown (SB) Isolation Valves

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) installed two jumpers in the control circuits for the four outboard SB isolation valves. The jumpers bypass relay contacts which provide the automatic isolation feature resulting from Emergency Feedwater (EFW) System actuation.

PURPOSE: This temporary modification was implemented to preclude unwanted SB System isolations triggered by valve movement while performing modifications on the steam supply line to the turbine-driven EFW Pump.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Sections. The affected circuits are safety-related. The safety evaluation determined that the plant would be in Mode 5 while the temporary modification was in place and, in this Mode, the bypassed isolation feature is not required. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-047

TITLE: Jumper in the Control Circuits for Steam Generator Blowdown (SB) Isolation Valves

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) installed a jumper in the control circuits for the four inboard SB isolation valves. The jumper bypasses a relay contact which controls the position of the four inboard SB isolation valves based on level and pressure in the SB Blowdown Flash Tank. A maintenance outage of 4160 VAC Bus 5 would de-energize the relay and prevent opening of the valves.

PURPOSE: This temporary modification was implemented to permit operation of the wet layup pump to maintain Steam Generator water chemistry during the maintenance outage of 4160 VAC Bus 5.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Sections. The affected circuits are safety-related. The safety evaluation determined that the plant would be in Mode 6 while the temporary modification was in place and, in this Mode, the bypassed Containment isolation feature is not required. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-049

TITLE: Temporary Main Generator Overcurrent Protection

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) disabled a portion of the Main Generator overcurrent relay protection systems. The disablements were accomplished by removing relay test jacks, which allow the relay to be disconnected internally. A temporary overcurrent relay was substituted for the disabled protective devices. The trip output from the temporary overcurrent relay was connected to be able to trip the Main Generator.

PURPOSE: This temporary modification was implemented to permit post-installation testing of a replaced current transformer associated with the permanent Main Generator overcurrent relay protection system.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Sections. The affected circuits are non-safety-related. The safety evaluation determined that safety-related equipment would not be affected by this temporary modification. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-051

TITLE: Rinse Flow Path for Steam Gen. r Blowdown (SB) System Demineralizers

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) provided a combined flow path for the discharge of the Steam Generator Blowdown (SB) demineralizers and the discharge of the Waste Holdup Sump Pump to the Circulating Water (CW) System discharge via the Liquid Waste (LW) discharge header. This flow path is continuously monitored for radiation and flow. A duplex strainer was provided as a backup to the demineralizer resin retention elements to prevent resin from entering the WL or CW Systems.

PURPOSE: The purpose of this temporary modification was to provide the capability to rinse the SB demineralizer after each regeneration cycle to reduce effluent conductivity using liquid from the SB Flash Tank as the rinsing fluid. The intent is to maintain this flow path by a future replacement of this temporary modification by a design change.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Sections. The affected components are non-safety-class. The safety evaluation determined that regenerant chemicals would be discharged to the CW System after recirculation and neutralization, in accordance with the original design. Protection from an unmonitored radiological release is provided by existing radiation monitoring equipment on the liquid waste discharge header. This TMOD did not affect safety-related equipment. The safety evaluation concluded that the TMOD did not create either an unreviewed safety or an unreviewed environmental question.

TEMPORARY MODIFICATION: Number 91-054

TITLE: Re-routing of Protected Area Storm Drains

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) plugged the storm drain downstream of Manhole No. 9, and installed a temporary pump to direct the storm drains to the Circulating Water (CW) discharge.

PURPOSE: The site drainage system discharges to the settling basin. Effluent from the settling basin is discharged to the Browns River. Radioactive materials cannot be discharged to the Browns River. As a result of the inadvertent radioactive contamination of the Demineralized Water (DM) System, storm drains inside the protected area could potentially become radioactively contaminated. Therefore, this temporary modification re-directed the storm drains originating inside the protected area to the CW System, which is recognized by the UFSAR as the discharge path for radioactive effluents. The intent is to replace this TMOD with a design modification (DCR 90-52).

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Sections. The site drainage system is non-safety-related. The safety evaluation determined that safety-related equipment would not be affected by this temporary modification, and that the potential release of radioactive drainage would be directed to a more conservative discharge point. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY MODIFICATION: Number 91-057

TITLE: Addition of a Temporary Demineralizer Unit to the Secondary Component Cooling Water (SCC) System

SUMMARY DESCRIPTION: This Temporary Modification (TMOD) added a temporary demineralizer unit to the SCC System downstream of filter 1-SCC-F-18.

PURPOSE: The SCC System became inadvertently contaminated with radioactive water as a result of make-up drawn from the inadvertently contaminated Demineralized Water (DM) System. A portion of SCC System flow would be routed through the demineralizer for cleanup of the radioactive contamination.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Sections. The SCC System is a non-safety-related system. The safety evaluation determined that safety-related equipment would not be affected by this temporary modification, and that the radioactive source term of the SCC System fluid inventory would be reduced. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

3. Temporary Setpoint Changes

The following temporary setpoint changes were implemented pursuant to the requirements of 10CFR50.59.

TEMPORARY SETPOINT CHANGE: Number 91-003

TITLE: Main Feedwater Pump Speed Control Differential Pressure Setpoint Change

SUMMARY DESCRIPTION: This Temporary Setpoint Change revised the differential pressure range for the Main Feedwater Pump speed control program from 80-195 psid to 80-150 psid. This Temporary Setpoint Change was restored upon implementation of DCR 91-009 which replaced the trim of the Main Feedwater regulating valves with a trim of balanced, single seat design.

PURPOSE: The purpose of this temporary setpoint change was to allow the main feedwater regulating valves to operate in a slightly more open position by reducing the pressure drop across them, and by so-doing to reduce the high frequency oscillations that were being experienced prior to the change.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this TMOD. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Sections. The Main Feedwater Pump and its speed controls are designated non-safety-related equipment. The safety evaluation determined that neither system reliability nor safety-related equipment would be affected by this temporary setpoint change. The safety evaluation concluded that the TMOD did not create an unreviewed safety question.

TEMPORARY SETPOINT CHANGE: Number 91-004

TITLE: Main Feedwater Pump Speed Control Differential Pressure Setpoint Change

SUMMARY DESCRIPTION: This Temporary Setpoint Change revised the differential pressure range for the Main Feedwater Pump speed control program from 80-195 psid to 80-165 psid. This temporary setpoint change was made permanent by DCR 91-009.

PURPOSE: The purpose of this temporary setpoint change was to allow the main feedwater regulating valves to operate in a slightly more open position by reducing the pressure drop across them. Although the plug and stem were no longer susceptible to flow-induced oscillations, stem packing friction was producing an unacceptable degree of valve hysteresis, adversely affecting steam generator level control. This revision enabled the valve to operate in a more fully open position where valve hysteresis has less effect on flow control.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this temporary setpoint change. The safety evaluation applicability review determined that the modifications temporarily changed the facility as described in the FSAR and identified the affected FSAR Sections. The Main Feedwater Pump and its speed controls are designated non-safety-related equipment. The safety evaluation determined that this temporary setpoint change would not adversely affect the operation of the main feedwater regulating valves or affect their ability to close in response to a feedwater isolation signal. No safety-related equipment would be affected by this temporary setpoint change. The safety evaluation concluded that the temporary setpoint change did not create an unreviewed safety question.

4 Procedures

The following procedures were approved or implemented as indicated pursuant to the requirements of 10CFR50.59.

PROCEDURE: Number CN91-1-4, Revision 00

TITLE: Elevated Ammonia Program

SUMMARY DESCRIPTION: During the first operating cycle, feedwater pH was maintained in the range of 8.8 to 9.2. This range was based on Westinghouse guidelines for secondary water chemistry for plants with copper alloys in the feedtrain. Seabrook Station has an all ferrous feedwater heater train; however there are copper alloys in other secondary system components (i.e. MSR tubes and condenser tubesheets). The results to date of Westinghouse studies, has indicated that feedwater pH can be increased to 9.6 in plants with 90/10 CuNi MSR tubes without significant increase in copper corrosion. This procedure was implemented to increase feedwater pH from 9.2 to 9.6 and monitor copper transport at the elevated pH. During Cycle 2, feedwater pH will be gradually increased in increments of 0.1 to a maximum of 9.6.

PURPOSE: The purpose of this procedure was to increase feedwater pH to a higher level with the expectation of reducing the fee .er iron concentrations and lowering the sludge burden to the steam generators.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this procedure. The safety evaluation applicability review determined that this procedure would change the administrative control of secondary system chemistry as described in the FSAR. The safety evaluation determined that the maximum pH to be attained by implementing this procedure was within the established limits for ferrous feedwater trains. Based on studies done by Westinghouse, it was expected that copper transport would not be increased by the elevated pH. The expected end result of this process would be a reduction in the probability of Steam Generator tube rupture due to corrosion. The safety evaluation concluded that implementation of the procedure would not involve an unreviewed safety question.

PROCEDURE: Number ES1801.009, Revision 00

TITLE: Emergency Feedwater (EFW) Pump Turbine Overspeed Test Using Auxiliary Steam

SUMMARY DESCRIPTION: This procedure utilized low-pressure steam from the Auxiliary Steam System cross-connected to the main steam supply header to the EFW Pump turbine to test the EFW Pump turbine overspeed trip setpoint. The turbine and pump are uncoupled for the test. The temporary auxiliary steam cross-connect to the main steam supply header to the EFW Pump turbine is a steam hose connected between capped connections in the pipe tunnel. The test is performed in either Mode 5 or 6 during each refueling outage.

PURPOSE: The purpose of this procedure is to employ auxiliary steam rather than Main Steam generated by the heat from Reactor Coolant Pump operation for the test. Operating the EFW turbine with auxiliary steam rather than main steam generated by the heat from Reactor Coolant Pump operation for the test permits the test to be scheduled at a more optimal time during each refueling outage.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this procedure. The safety evaluation applicability review determined that this procedure would make a temporary change in the facility as described in the FSAR. The safety evaluation determined that the use of a temporary cross-connect between the Auxiliary Steam System and the Main Steam supply header to the EFW Pump turbine to conduct the test in the manner described by the procedure during the refueling outage would not introduce any new safety concerns. The safety evaluation concluded that would not involve an unreviewed safety question.

PROCEDURE: Number ES91-1-31, Revision 00

TITLE: BWST/RWST Cross-Tie

SUMMARY DESCRIPTION: This procedure was implemented to transfer approximately 100,000-125,000 gallons of borated water from the Refueling Water Storage Tank (RWST) to the "A" Boron Waste Storage Tank (BWST) and later transfer this water back to the RWST using a temporary pump and hoses.

PURPOSE: This procedure was implemented to lower the Refueling Water Storage Tank (RWST) to a level which would permit the performance of radiographic examination of a weld on a line from the RWST. Reexamination of this weld was determined to be necessary during the Weld Records Re-verification Program. Upon completion of the radiography, the original contents of the RWST were restored.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this procedure. The safety evaluation applicability review determined that this procedure would make a temporary change in the facility as described in the FSAR. The safety evaluation determined that transferring the contents of the RWST to the BWST, temporarily storing this water in the BWST, and transferring it back to the RWST following completion of radiography could be done without affecting safety-related structures, systems or components and without introducing new safety concerns. The safety evaluation concluded that would not involve an unreviewed safety question.

PROCEDURE: Number LS0564.32, Revision 00

TITLE: Spent Fuel Pool Cooling Pump Energizing Backup Power

SUMMARY DESCRIPTION: This procedure was prepared to provide a standby source of electrical power to operate a spent fuel pool cooling pump in Mode 6 with the reactor core off-loaded to the Spent Fuel Pool.

PURPOSE: During the refueling outage, maintenance outages of Electrical Buses E5 and E6 were planned. With one of these Buses de-energized for maintenance, a loss of off-site power coincident with a failure to start of the operable Emergency Diesel Generator would result in loss of electrical power to the remaining Spent Fuel Cooling Pump. The purpose of this procedure was to provide a contingency plan, which would be activated from Station Abnormal Procedure OS1246.01 to power a Spent Fuel Cooling Pump by the Portable Diesel Generator by means of a pre-staged, temporary feeder cable.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this procedure. The safety evaluation applicability review determined that this procedure, if used, would make changes in the facility as described in the FSAR. Performance of the procedure to demonstrate its adequacy would, by strict definition, be a test not described in the UFSAR. The safety evaluation determined that testing the procedure in advance of reactor core off-load would not degrade safe operation. The safety evaluation also determined that use of the procedure under conditions in which it was needed would alleviate rather than exacerbate the emergency condition. The safety evaluation concluded that testing and implementation of the procedure would not involve an unreviewed safety question.

5. Procedure Revisions

The following procedure revisions were implemented pursuant to the requirements of 10CFR50.59

PROCEDURE: Number ES1801.002, Revision 04

TITLE: Leakage Reduction Program Surveillance

SUMMARY DESCRIPTION: Procedure EX1801.002 implements the requirements of two separate and distinct programs, one of which is the Boric Acid Leakage Monitoring and Prevention Program described in letter NYN-88076, the NHY response to NRC Generic Letter 88-05. Although Generic Letter 88-05 did not specify qualifications for visual inspectors, NHY committed that personnel qualified as VT-2 examiners would perform certain portions of the boric acid leakage inspections.

In letter NYN-88076, NHY stated that personnel qualified as VT-2 examiners would identify the leaking component, record its tag number and the number of the associated corrective action work request in test documentation, and determine whether or not the test acceptance criteria had been met. Revision 02 to EX1801.002 went beyond the commitment of NYN-88076 and required VT-2 qualified examiners to perform the entire inspection, including leak rate measurement and an initial assessment of the impact of discovered leakage on affected and surrounding components.

Revision 04 restructured the inspection process and removed the requirement that qualified VT-2 examiners perform the inspections. In summary, Revision 04 restructured the boric acid leakage inspection process into an initial screening inspection, an engineering evaluation and a post-corrective-action, VT-2 inspection. Personnel not qualified as VT-2 examiners, who may perform the screening inspection, will be sufficiently experienced, trained and briefed to ensure their ability to satisfactorily perform the screening inspection. The results of the screening inspection will be reviewed by engineering personnel responsible for the program. Each instance of discovered leakage or boric acid residue will be evaluated by the system engineer. A VT-2 inspection for material degradation of affected areas will be conducted following completion of corrective action. The above steps provide a system of checks and balances to ensure that the revised boric acid leakage inspection process is as effective as that required by Revision 03.

PURPOSE: The primary purpose of Revision 04 to EX1801.002 was to revise the method of utilization of VT-2 qualified examiners in the boric acid leakage inspection process as described above.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this procedure revision. The safety evaluation applicability review determined that the Boric Acid Leakage Monitoring and Prevention Program for designated systems outside Containment is not described in the FSAR, but is described in letter NYN-88076, the NHY response to NRC Generic Letter 88-05. Since Revision 04 changed the commitment made in letter NYN-88076 regarding the manner in which personnel qualified as VT-2 examiners are utilized in the conduct of boric acid leakage inspections, a safety evaluation was performed as a conservative measure. The safety evaluation determined that Revision 04 did not reduce the effectiveness of the overall process of detecting leakage and boric acid residue. Therefore, the safety evaluation concluded that the Revision did not involve an unreviewed safety question.

PROCEDURE: Number ES1801.006, Revision 02

TITLE: Containment Leakage Reduction Program

SUMMARY DESCRIPTION: Procedure EX1801.006 implements the requirements of the Boric Acid Leakage Monitoring and Prevention Program for the Reactor Coolant System (RCS) and portions of systems connecting to the RCS inside Containment. This program was described in letter NYN-88076, the NHY response to NRC Generic Letter 88-05. Although Generic Letter 88-05 did not specify qualifications for visual inspectors, NHY committed that personnel qualified as VT-2 examiners would perform certain portions of the boric acid leakage inspections.

In letter NYN-88076, NHY stated that personnel qualified as VT-2 examiners would identify the leaking component, record its tag number and the number of the associated corrective action work request in test documentation, and determine whether or not the test acceptance criteria had been met. Revision 00 to EX1801.006 went beyond the commitment of NYN-88076 and required VT-2 qualified examiners to perform the entire inspection, including leak rate measurement and an initial assessment of the impact of discovered leakage on affected and surrounding components.

Revision 02 restructured the inspection process and removed the requirement that qualified VT-2 examiners perform the inspections. In summary, Revision 02 restructured the boric acid leakage inspection process into an initial screening inspection, an engineering evaluation and a post-corrective-action, VT-2 inspection. Personnel not qualified as VT-2 examiners, who may perform the screening inspection, will be sufficiently experienced, trained and briefed to ensure their ability to satisfactorily perform the screening inspection. The results of the screening inspection will be reviewed by engineering personnel responsible for the program. Each instance of discovered leakage or boric acid residue will be evaluated by the system engineer. A VT-2 inspection for material degradation of affected areas will be conducted following completion of corrective action. The above steps provide a system of checks and balances to ensure that the revised boric acid leakage inspection process is as effective as that required by Revision 00.

PURPOSE: The primary purpose of Revision 02 to EX1801.006 was to revise the method of utilization of VT-2 qualified examiners in the boric acid leakage inspection process as described above.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this procedure revision. The safety evaluation applicability review determined that the Boric Acid Leakage Monitoring and Prevention Program for designated systems inside the Containment is not described in the FSAR, but is described in letter NYN-88076, the NHY response to NRC Generic Letter 88-05. Since Revision 02 changed the commitment made in letter NYN-88076 regarding the manner in which personnel qualified as VT-2 examiners are utilized in the conduct of boric acid leakage inspections, a safety evaluation was performed as a conservative measure. The safety evaluation determined that Revision 02 did not reduce the effectiveness of the overall process of detecting leakage and boric acid residue. Therefore, the safety evaluation concluded that the Revision did not involve an unreviewed safety question.

6. Tests and Experiments

No tests or experiments were conducted pursuant to 10CFR50.59 during this period. However, as indicated in the summary for Procedure LS0564.32, Revision 00, discussed on page 139, by strict definition, testing the procedure could be considered to constitute a test not described in the UFSAR.

7. Technical Requirements Manual

The following Technical Requirements Manual changes have been approved pursuant to the requirements of 10CFR50.59.

TECHNICAL REQUIREMENTS MANUAL CHANGE REQUEST: Number 89-04

TITLE: Instantaneous Trip Testing

SUMMARY DESCRIPTION and PURPOSE: This Technical Requirements Change Request removed Note 1 in Technical Requirements 13 and 15. This note provided instructions for instantaneous trip testing of molded case circuit breakers. During a test following a trip, the instructions called for attempting to reset the tripped breaker as a means of determining whether the instantaneous trip element or the thermal element caused the trip. During surveillance testing of molded case circuit breakers, confusion arose as to whether breaker resetting, as described in the note, constituted a requirement or was a recommendation. Technical Clarification TS-073 clarified that Note 1 did not constitute a requirement. It was therefore proposed to remove Note 1 from these two Technical Requirements in order to eliminate any future confusion. The surveillance testing procedure contains the necessary guidance and defines testing requirements.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this Technical Requirements Change Request. The safety evaluation applicability review determined that the removal of the note from the affected Technical Requirements constituted a change to the Technical Specification Improvement Program described in FSAR Section 16.3. The safety evaluation determined that the change clarified testing requirements for the affected devices and did not alter hardware or testing methods. The safety evaluation concluded that removal of Note 1 would not involve an unreviewed safety question.

TECHNICAL REQUIREMENTS MANUAL CHANGE REQUEST: Number 90-06

TITLE: Service Water Valves Stroke Time Revision

SUMMARY DESCRIPTION and PURPOSE: This Technical Requirements Change Request updated information in Technical Requirement 14 (Table 16.3-9) regarding the thermal overload protection device for Service Water valve SW-V54. Table 16.3-9 lists thermal overload protection information for motor-operated valves. The stroke time requirements of Cooling Tower Pump discharge valves (SW-V25 and SW-V54) were changed by MMOD 90-523. The stroke time requirements change resulted in a change of the overload heater size for SW-V54 only. Therefore, in Table 16.3-9, the overload heater catalog number and heater current range for SW-V54 were changed to their revised values.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for MMOD 90-523, the MMOD associated with this Technical Requirements Manual Change Request. This safety evaluation is summarized in the section of this report covering MMODs.

TECHNICAL REQUIREMENTS MANUAL CHANGE REQUEST: Number 90-08

TITLE: Changes in Overload Data for Main Steam Isolation Bypass Valves

SUMMARY DESCRIPTION and PURPOSE: This Technical Requirements Change Request updated information in Technical Requirement 14 (Table 16.3-9) regarding the Main Steam isolation bypass valves' thermal overload devices. Gear ratios for these valves were changed by NCR 82/937 and ECA 99/117114. As a result of this change, motor operator protection was recalculated for these valves by DCR-86-594. The calculation led to the replacement of the overload heaters in the motor operators for these valves. Therefore, the overload heater catalog number and heater current range were changed to their revised values in Table 16.3-9.

SAFETY EVALUATION SUMMARY: A summary of the safety evaluation for DCR 86-594 was included with the quarterly 10CFR50.59 report forwarded by letter NYN-90051. A safety evaluation was also performed for this Technical Requirements Change Request. The safety evaluation applicability review determined that the changes made did not affect the criteria in the FSAR. However, as a conservative measure, a safety evaluation was performed. The safety evaluation determined that the changes were based on approved criteria for circuit protection; and that proper selection of circuit protection and testing assures proper functioning of the circuits and their motor operated valves. The safety evaluation concluded that the changes would not involve an unreviewed safety question.

TECHNICAL REQUIREMENTS MANUAL CHANGE REQUEST: Number 91-03

TITLE: Fire Protection Pump Instrumentation Changes

SUMMARY DESCRIPTION and PURPOSE: Technical Requirement No. TR7-4.7.9.1.1f.4 defined the surveillance testing requirement to verify the sequential start of the fire suppression water system pumps in order to maintain proper system pressure. While attempting to perform this surveillance test, it was discovered that system pressure would not decrease to the 90 psig start setpoint of the second pump before the first pump reached a runout condition. A review of the fire suppression water system design was conducted. This design review defined the worst-case, safety-related fire condition and determined that Technical Requirement 7 should be changed such that surveillance testing would demonstrate the ability of the fire suppression water pumps to adequately respond to the worst-case, safety-related fire condition. MMOD 91-512 was prepared to resolve several fire protection system concerns and authorize needed setpoint changes. This MMOD documented the changes needed to ensure correct fire suppression water pump sequential start for maintenance of proper system pressure and flow under the worst case, safety-related fire conditions.

NHY calculation C-S-1-69013 determined that 1791 gpm at 295 feet of TDH was required for the worst case, safety-related fire condition. Accordingly, TR7-4.7.9.1.1.f.2) was revised to verify that each pump develops at least 900 gpm at a total developed head of 295 feet. Additional changes were made to TR7-3.7.9.1 and TR7-4.7.9.1.1 for mutual consistency and compatibility with the results of the study.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for MMOD 91-512, the MMOD associated with this Technical Requirements Manual Change Request. This safety evaluation is summarized in the section of this report covering MMODs.

TECHNICAL REQUIREMENTS MANUAL CHANGE REQUEST: Number 91-06

TITLE: Containment Bypass Leakage Paths

SUMMARY DESCRIPTION and PURPOSE: Generic Letter 91-08 provides guidance for preparing a license amendment request to remove certain component lists from Technical Specifications. The guidance of GL 91-08 generally requires that component lists removed from Technical Specifications be relocated to a document which is subject to the administrative requirements of Technical Specifications, Section 6.0.

In a future License Amendment Request (LAR 91-06) NHY plans to implement the guidance of Generic Letter 91-08 for Seabrook Station regarding secondary Containment bypass leakage paths. Upon approval of this LAR, a portion of TRCR No. 91-06 will be implemented relocating the list of secondary Containment bypass leakage paths from Technical Specifications, Table 3.6-1 to the Technical Requirements Manual, under a new Technical Requirement 16.

To conform to the guidance of GL 91-08, the portion of TRCR No. 91-06 not requiring prior NRC approval was implemented. This portion added the GL 91-08 definition for administrative control requirements in Technical Requirement No. 6 (Table 16.3-4) for intermittent opening of locked or sealed closed Containment Isolation valves.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this Technical Requirements Change Request. The safety evaluation applicability review determined that the addition of the administrative control guidance to the affected Technical Requirements constituted a change to the Technical Specification Improvement Program described in FSAR Section 16.3. The safety evaluation determined that the administrative control guidance provided enhancement and clarification to existing requirements applicable to locked or sealed closed valves. The safety evaluation concluded that addition of the administrative control guidance would not involve an unreviewed safety question.

TECHNICAL REQUIREMENTS MANUAL CHANGE REQUEST: Number 91-07

TITLE: Westinghouse Type KD Breaker Replacements for Obsolete ITE Type JL

SUMMARY DESCRIPTION and PURPOSE: This Technical Requirements Change revised test setpoints and verification response times for circuit breakers in Technical Requirement 13 (Table 16.3-8). Type JL thermal magnetic circuit breakers are listed in Table 16.3-8, as Containment penetration conductor overcurrent protection devices. However, Type JL circuit breakers are no longer available. Minor Modification (MMOD) No. 90-663, determined that Westinghouse Type KD thermal magnetic circuit breakers are qualified replacements for Type JL thermal magnetic circuit breakers in MCC applications. Therefore Technical Requirements Change Request #91-07, revised Table 16.3-8, to provide the setpoints for testing Type KD circuit breakers used as replacements for Type JL circuit breakers in Containment penetration conductor overcurrent protection applications.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for the MMOD associated with this Technical Requirements Manual Change Request. The safety evaluation applicability review determined that the UFSAR did not specify the type of circuit breaker (i.e. JL or KD) in its discussion of electrical equipment which use this type of circuit breaker. However, Table 16.3-8 did specifically list Type JL circuit breakers. Therefore, the MMOD associated with this Technical Requirements Manual Change Request affected only Table 16.3-8 of the UFSAR. The safety evaluation determined that Westinghouse Type KD thermal magnetic circuit breakers are qualified replacements for Type JL thermal magnetic circuit breakers in MCC applications. The use of a Type KD circuit breaker as a replacement for a Type JL circuit breaker would not change the function or operating capabilities of the circuits in which they are installed. The Type KD circuit breaker provides the same electrical protection for the circuits as the Type JL circuit breaker. The safety evaluation concluded that the MMOD would not involve an unreviewed safety question.

8. Final Safety Analysis Report/Updated Final Safety Analysis Report

Change requests to the Final Safety Analysis Report (FSAR) or the Updated FSAR (UFSAR) associated with Design Coordination Reports (DCRs) or Minor Modifications (MMODs) were referenced in Section 1 and 9 of this report. The below listed additional FSAR or UFSAR change requests were issued pursuant to the requirements of 10CFR50.59.

FINAL SAFETY ANALYSIS REPORT CHANGE REQUEST: Number 90-116, Revision 1

TITLE: Updated FSAR Chapter 13

SUMMARY DESCRIPTION: This Final Safety Analysis Report (FSAR) Change Request (FCR) updated the organizational descriptions in the UFSAR to reflect the approved organizational changes affecting the Maintenance, and the Chemistry/Health Physics Departments.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this FCR. The safety evaluation applicability review determined that the Chapter 13 revisions made changes to the facility as described in the FSAR. The safety evaluation determined that the changes were administrative in nature and did not affect plant equipment. The safety evaluation concluded that the changes did not create an unreviewed safety question. These changes will be incorporated into the Updated FSAR.

FINAL SAFETY ANALYSIS REPORT CHANGE REQUEST: Number 91-032

TITLE: Diesel Generator Lube Oil Pressure Switch Setpoints

SUMMARY DESCRIPTION: This Final Safety Analysis Report (FSAR) Change Request (FCR) revised UFSAR Section 9.5.7.5, "Diesel Generator Lubrication System, Instrumentation." The revision updated the information regarding several pressure switch setpoints and the logic for the low rocker arm lube oil pressure alarm. The revisions bring the UFSAR descriptions into agreement with as built conditions.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this FCR. The safety evaluation applicability review determined that this revision constituted a change to the facility as described in the UFSAR. The safety evaluation determined that the revisions to UFSAR Section 9.5.7.5 were editorial and did not represent changes to plant equipment. The revised setpoints were to bring the UFSAR into agreement with the Standard Instrument Schedule (SIS), the official Seabrook Station document specifying instrument setpoints. The safety evaluation concluded that the revision would not create an unreviewed safety question. The revision will be incorporated into the Updated FSAR.

FINAL SAFETY ANALYSIS REPORT CHANGE REQUEST: Number 91-033

TITLE: Startup Test Abstracts

SUMMARY DESCRIPTION: This Final Safety Analysis Report (FSAR) Change Request (FCR) revised FSAR Table 14.2-5, "Startup Test Abstracts." The revision changed the description of the test abstracts for the "Calibration of Steam and Feedwater Flow Instrumentation" and "Water Chemistry Control" tests. The revised description included additional information requested by the NRC during their review of Amendment 63 to the FSAR.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this FCR. The safety evaluation applicability review determined that this revision constituted a change to procedures as described in the UFSAR. The safety evaluation determined that the revised procedural descriptions incorporated procedural requirements that were already addressed in the Startup Program and therefore did not introduce a safety concern. The safety evaluation concluded that the revision would not create an unreviewed safety question.

FINAL SAFETY ANALYSIS REPORT CHANGE REQUEST: Number 91-036

TITLE: Equipment Required for Safe Shutdown

SUMMARY DESCRIPTION: This Final Safety Analysis Report (FSAR) Change Request (FCR) revised FSAR Table 7.4-1, "Equipment Required for Safe Shutdown." The revision identified 125 VDC distribution panels PP-113A and PP-113B as Remote Safe Shutdown (RSS) locations for the steam generator atmospheric relief valves in addition to CP-108A and CP-108B, already listed. The appropriate circuit breakers at these panels must be opened to fully isolate the Control Room controls from these relief valves when taking control at the Remote Safe Shutdown Facilities (CP-108A and CP-108B). Abnormal Operating procedures have also been revised to ensure that the appropriate circuit breakers are opened.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this FCR. The safety evaluation applicability review determined that this revision constituted a change to the facility as described in the UFSAR. The safety evaluation determined that the revisions to UFSAR Table 7.4-1 did not introduce a safety concern, since the revision did not represent an equipment change. It merely corrects an oversight and makes the information more complete. The safety evaluation concluded that the revision would not create an unreviewed safety question. The revision will be incorporated into the Updated FSAR.

FINAL SAFETY ANALYSIS REPORT CHANGE REQUEST: Number 91-043

TITLE: Accident Monitoring Instrumentation

SUMMARY DESCRIPTION: This Final Safety Analysis Report (FSAR) Change Request (FCR) revised FSAR Table 7.5-1, "Accident Monitoring Instrumentation List." The revisions clarified the use of the Inadequate Core Cooling (ICC) monitor plasma displays and d 'eted the requirement for trending certain parameters from the Table. The AMI List specifies the instruments required to support the Emergency Operating Procedures (EOPs). The latest revisions of the EOPs do not require trending of the affected parameters. Therefor UFSAR Table 7.5-1 has been revised to reflect the latest revisions of the EOPs.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this FCR. The safety evaluation applicability review determined that this revision constituted a change to the facility as described in the UFSAR. The safety evaluation determined that the revisions to UFSAR Table 7.5-1 did not introduce a safety concern, since the operator does not depend on trending of the affected parameters in the execution of the EOPs. The safety evaluation concluded that the revision would not create an unreviewed safety question. The revision will be incorporated into the Updated FSAR.

FINAL SAFETY ANALYSIS REPORT CHANGE REQUEST: Number 91-046

TITLE: Refueling Procedures

SUMMARY DESCRIPTION: This Final Safety Analysis Report (FSAR) Change Request (FCR) revised certain descriptions of refueling procedure in the UFSAR. The revised descriptions reflect detailed Seabrook Station design and methodology. The revision includes procedural steps designed to minimize the time that the reactor vessel head is suspended by the polar crane and to visually verify that all RCCA drive shafts have disengaged from the reactor vessel head prior to commencement of reactor cavity flooding.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this FCR. The safety evaluation applicability review determined that this revision constituted a change to procedures as described in the UFSAR. The safety evaluation determined that the revised procedural descriptions do not introduce safety concerns. The safety evaluation concluded that the revision would not create an unreviewed safety question. The revision will be incorporated into the Updated FSAR.

FINAL SAFETY ANALYSIS REPORT CHANGE REQUEST: Number 91-047

TITLE: Accident Monitoring Instrumentation

SUMMARY DESCRIPTION: This Final Safety Analysis Report (FSAR) Change Request (FCR) revised FSAR Table 7.5-1, "Accident Monitoring Instrumentation List." The revision deleted the requirement for trending of Containment Building Water Level and Containment Area Radiation from the Accident Monitoring Instrumentation (AMI) List, UFSAR Table 7.5-1. The AMI List specifies the instruments required to support the Emergency Operating Procedures (EOPs). The latest revisions of the EOPs do not require trending of these parameters. Therefore, UFSAR Table 7.5-1 has been revised to reflect the latest revisions of the EOPs.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this FCR. The safety evaluation applicability review determined that this revision constituted a change to the facility as described in the UFSAR. The safety evaluation determined that the revisions to UFSAR Table 7.5-1 did not introduce a safety concern, since the operator does not depend on trending of the affected parameters in the execution of the EOPs. The safety evaluation concluded that the revision would not create an unreviewed safety question. The revision will be incorporated into the Updated FSAR.

FINAL SAFETY ANALYSIS REPORT CHANGE REQUEST: Number 91-049

TITLE: Reactor Cavity Filling for Refueling

SUMMARY DESCRIPTION: This Final Safety Analysis Report (FSAR) Change Request (FCR) revised UFSAR Section 5.4.7.2.c.4 regarding the method of filling the refueling cavity in preparation for refueling. The section had specified that borated water would be pumped from the Refueling Water Storage Tank (RWST) to the refueling cavity using the Residual Heat Removal (RH) Pumps. The revision is less prescriptive, allowing the transfer to occur either by pumping or by the gravity feed method, at the discretion of operations personnel.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this FCR. The safety evaluation applicability review determined that this revision constituted a change to procedures as described in the UFSAR. The safety evaluation determined that the gravity feed method, may be the preferred transfer method, has been evaluated by Engineering Evaluation No. 89-10 and does not introduce safety concerns. The safety evaluation concluded that the revision would not create an unreviewed safety question. The revision will be incorporated into the Updated FSAR.

FINAL SAFETY ANALYSIS REPORT CHANGE REQUEST: Number 91-050

TITLE: Fuel Handling

SUMMARY DESCRIPTION: This Final Safety Analysis Report (FSAR) Change Request (FCR) revised UFSAR Section 9.1.4.2.b.3, "Phase III - Fuel Handling." The revision changed the description of the general fuel handling sequence in the UFSAR. The revised description encompasses both the full core offload and the core shuffle method of refueling.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this FCR. The safety evaluation applicability review determined that this revision constituted a change to procedures as described in the UFSAR. The safety evaluation determined that the revised procedural descriptions did not change the method of using the fuel handling equipment and therefore did not introduce a safety concern. The safety evaluation concluded that the revision would not create an unreviewed safety question. The revision will be incorporated into the Updated FSAR.

FINAL SAFETY ANALYSIS REPORT CHANGE REQUEST: Number 91-057

TITLE: Seabrook Station Tritium Control Plan

SUMMARY DESCRIPTION: This Final Safety Analysis Report (FSAR) Change Request (FCR) revised Section 11.1.1.3 of the UFSAR which describes the plan for maintaining tritium in the Reactor Coolant System (RCS) at levels that allow reasonable access to the Containment. The revision replaced the current plan which specifies a 200,000 gallon feed and bleed of the RCS prior to each refueling outage with a revised plan which entails a periodic discharge or feed and bleed based on "tritium control points." The revision was intended to provide more operating flexibility.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this FCR. The safety evaluation applicability review determined that this revision constituted a change to procedures as described in the UFSAP. The safety evaluation determined that the revision would eliminate unnecessary processing of primary coolant and actually reduce the probability of equipment malfunction. The safety evaluation did not identify any associated safety concerns. The safety evaluation concluded that the revision would not create an unreviewed safety question. The revision will be incorporated into the Updated FSAR.

FINAL SAFETY ANALYSIS REPORT CHANGE REQUEST: Number 91-059

TITLE: Steam Generator (SG) Blowdown Demineralizer Usage with Low Level Secondary Side Contamination

SUMMARY DESCRIPTION: This Final Safety Analysis Report (FSAR) Change Request (FCR) revised various UFSAR sections. The revisions reflected the option of processing steam generator blowdown using either the blowdown evaporators or the blowdown demineralizer system with low level secondary side contamination. The revisions specify restrictions applicable to use of the blowdown demineralizer system with low level secondary side contamination.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this FCR. The safety evaluation applicability review determined that this revision constituted a change to procedures as described in the UFSAR. The safety evaluation determined that operating the blowdown demineralizer system when low levels of secondary side contamination exist would not result in the blowdown demineralizer system operating under conditions exceeding its design capability. The safety evaluation concluded that the revision would not create an unreviewed safety question. The revision will be incorporated into the Updated FSAR.

FINAL SAFETY ANALYSIS REPORT CHANGE REQUEST: Number 91-075

TITLE: General Update of "Fire Protection Program Evaluation and Comparison to BTP APCSB 9.5-1, Appendix A"

SUMMARY DESCRIPTION: This Final Safety Analysis Report (FSAR) Change Request (FCR) consisted of a general update of the subject document based on a technical review. The majority of the changes were editorial or administrative. In several fire areas /zones, minor revisions were made to the combustible fire loading to reflect actual plant conditions. These revisions did not affect existing fire protection systems or manual firefighting capability and did not result in recommendations for new fire protection modifications.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed for this FCR. The safety evaluation applicability review determined that the Fire Protection Program Evaluation and Comparison to BTP APCSB 9.5-1, Appendix A is incorporated by reference into the FSAR. The safety evaluation determined that the changes did not reduce the effectiveness of the Fire Protection Program or affect the conclusions of the 10CFR50, Appendix R analysis. The safety evaluation concluded that the changes did not create an unreviewed safety question. These changes will be incorporated into the Updated FSAR.

9. Miscellaneous 10CFR50.59 Evaluations

The following additional safety evaluations were performed pursuant to 10CFR50.59.

TITLE: Cycle 2 Reload Core Design Safety Evaluations

SUMMARY DESCRIPTION: A safety evaluation was performed for Seabrook Station by Yankee Atomic entitled the "Safety Evaluation for Cycle 2 Reload Core Design." This safety evaluation encompassed the Westinghouse safety evaluation and the boron dilution analysis identified below. The Westinghouse safety evaluation encompassed all events normally considered by Westinghouse as part of reload evaluation methodology, except the boron dilution analysis, which is within the Yankee Atomic scope of analysis for Seabrook Station. A boron dilution analysis was performed for Seabrook Station by Yankee Atomic.

The boron dilution event was re-analyzed by Yankee Atomic using the beginning of Cycle 2 core physics data. An acceptance criteria specified by NUREG 0800 (the Standard Review Plan) for this analysis is that, if operator action is required to terminate the transient, a minimum of fifteen minutes must be available between the time when an alarm announces an unplanned moderator dilution and the time of loss of shutdown margin in Operational Modes 1 through 5. For Seabrook Station, the alarm is provided by the Gammametrics Shutdown Monitor System. The boron dilution re-analysis determined that, in order to satisfy this acceptance criteria, the maximum dilution flow rates with filled loops in the early part of Cycle 2 is 118 gpm during hot shutdown and 107 gpm during cold shutdown. The Seabrook Updated FSAR currently assumes a 150 gpm dilution flow rate for this event. The 150 gpm flow rate corresponds to the capacity of one reactor makeup water (RMW) pump. In Operational Modes 4, 5 and 6, Technical Specifications require that the Boron Thermal Regeneration System (BTRS) be isolated from the RCS and that reactor makeup systems be inoperable except for the delivery capacity of one RMW pump.

As a result of the boron dilution re-analysis findings and conclusion summarized above, the Station Staff decided to administratively control the position of valve RMW-V34 (RMW pumps discharge to the boric acid blender) in Modes 4 and 5 to limit reactor makeup flow to the blender to a maximum of 107 gpm until such time in Cycle 2 that the flow rate limitation no longer applies. Also, normally-closed valve RMW-V36, which provides a flow path from the RMW pumps discharge to the charging pump suction will be administratively maintained closed.

PURPOSE: The purpose of these safety evaluations was to determine whether or not the Cycle 2 Reload Core design involved an unreviewed safety question.

SAFETY EVALUATION CONCLUSIONS: The conclusion of the Yankee Atomic Cycle 2 Reload safety evaluation was that introduction of Region 4 fuel and reconstitution of the core in conformance with Cycle 2 design will neither involve an unreviewed safety question nor require an Operating License amendment. The conclusion was conditioned upon limiting RMW flow to the boric acid blender to a maximum of 107 gpm in Modes 4 and 5 during the early portion of Cycle 2. The conclusion of the boron dilution re-analysis was that reconfiguration of the core for Cycle 2 will not result in the creation of any unreviewed safety question provided that flow from a single RMW pump to the boric acid blending 'tee', CS-MM-1, in the Chemical and Volume Control System (CVCS) is limited to a maximum of 107 gpm during the early portion of the cycle. The Westinghouse reload safety evaluation determined that the Cycle 2 core reload does not result in the safety limits for any accident being exceeded and will not adversely affect the safety of the plant.

FCR 91-053

ENGINEERING EVALUATION: Number 91-42

TITLE: Contamination of Non-radioactive Systems

SUMMARY DESCRIPTION: This Engineering Evaluation reviewed the consequences of the inadvertent radioactive contamination of the Demineralized Water (DM) System and certain other fluid systems at Seabrook Station which interface with the DM System. Several of these contaminated or potentially contaminated systems are described as non-radioactive in the Updated FSAR (UFSAR). The DW System became radioactively contaminated as a result of reverse flow of reactor coolant from the letdown line to the DM System through the Letdown Gross Activity Monitor purge connection. This Engineering Evaluation was performed in accordance with the guidance of NRC IE Bulletin No. 80-10.

PURPOSE: The purpose of this evaluation was to determine if operation of certain non-radioactive systems, which had become contaminated as a result of the inadvertent contamination of the DW System, was acceptable (i.e., did not involve an unreviewed safety question or require a change to the Technical Specifications).

SAFETY EVALUATION SUMMARY: A safety evaluation was performed as part of this engineering change. The safety evaluation included a radiological assessment of the consequences of the inadvertent contamination of the DW System and other interfacing systems. The radiological analysis of expected and potential releases to the environment from this upset condition concluded that all Technical Specification dose limit objectives for routine operation, as well as effluent release concentration limits per 10 CFR 20, were complied with.

The safety evaluation concluded that operation of the DW System and certain other non-radioactive systems at Seabrook Station with low levels of radioactive contamination did not require a change to the Technical Specifications and did not involve an unreviewed safety question.

REQUEST FOR ENGINEERING SERVICES: Number 91-163

TITLE: Bartlett Nuclear Dry Activated Waste (DAW) Trailer

SUMMARY DESCRIPTION: This Request for Engineering Services (RES) requested a "50.59" evaluation for locating a Bartlett Nuclear Dry Activated Waste (DAW) Trailer in a position adjacent to the south wall of the Fuel Storage Building (FSB), which is outside the Radiologically Controlled Area (RCA). The DAW Trailer is a 12 foot by 48 foot trailer designated non-safety-related, non-seismic. It houses equipment to sort, bag, seal, and monitor dry activated waste material.

PURPOSE: The purpose of this evaluation was to determine whether or not locating and operating the equipment in the DAW Trailer in its proposed location would require a license amendment or involve an unreviewed safety question.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed as the disposition of this RES to determine whether or not the proposed location and use of the DAW Trailer would require a license amendment or involve an unreviewed safety question. The safety evaluation applicability review determined that the DAW Trailer, being a temporary facility, would not be specifically described in the FSAR. The evaluation addressed two radiological concerns: 1) ensuring that dose rates outside the trailer did not exceed restricted area limits, and 2) ensuring that effluents did not exceed limits for an unmonitored pathway. The safety evaluation determined that location and operation of the DAW Trailer adjacent to the south wall of the FSB would not result in dose rates outside the trailer exceeding restricted area limits. The safety evaluation further determined that radioactive, gaseous effluents from the DAW Trailer would be insignificant. Periodic sampling would be performed to confirm this determination. The safety evaluation concluded that the location and use of the DAW Trailer as proposed would not require a license amendment or involve an unreviewed safety question.

REQUEST FOR ENGINEERING SERVICES: Number 91-255

TITLE: Temporary Enclosure for Access/Egress to the Radiologically-Controlled Area (RCA)

SUMMARY DESCRIPTION: This Request for Engineering Services requested an Engineering review of a proposed temporary enclosure (vestibule) to house two personnel monitors and a small articles monitor. The vestibule was to be built as an independent unit of wood construction located outside the Containment RCA access door (Door # EM414). The vestibule was to be used only during the refueling outage.

PURPOSE: The purpose of this evaluation was to provide recommendations regarding construction and use of the vestibule including safety, radiological and ALARA considerations.

SAFETY EVALUATION SUMMARY: A safety evaluation was performed as part of the disposition of this request for engineering services to verify that the vestibule, which would be a temporary extension of the RCA, did not involve an unreviewed safety question. The UFSAR anticipates the use of alternate facilities to support RCA ingress/egress during maintenance and refueling outages. Adherence to the engineering recommendations and application of Seabrook Station Radiation Protection Program procedures would ensure that use of the temporary vestibule would not violate site radiological safety and other commitments. The safety evaluation determined that the vestibule would not adversely affect safety-related structures, systems or components, create a fire hazard, or impact the integrity of barriers designed to contain, process and control the release of airborne radioactivity.

The safety evaluation concluded that the installation and use of the temporary vestibule would not involve an unreviewed safety question.

TITLE: Temporary Storage of Dry, Activated Waste in the Unit 2 Cooling Tower

PURPOSE: NHY is not allowed to ship low-level dry, activated waste (DAW) to a repository for disposal. Therefore, it is necessary to temporarily store DAW on site. The purpose of the safety evaluation was to determine whether or not temporary storage of DAW in the Unit 2 Section of the Service Water Cooling Tower at Seabrook Station involved an unreviewed safety question.

SUMMARY DESCRIPTION: This safety evaluation addressed the NHY program to store low level dry activated waste (DAW) on an interim basis within the Unit 2 Electrical Switchgear Room of the Service Water Cooling Tower at Seabrook Station. The safety evaluation applicability review determined that storage of low-level radioactive waste or DAW in the Unit 2 Cooling Tower was not within the scope of the original Cooling Tower Design. The safety evaluation determined that storage of low-level radioactive waste or DAW in the Unit 2 Cooling Tower neither affected operation of the Station nor revised any system parameters or operating instructions. The storage of DAW in the Unit 2 section of the Cooling Tower revises neither estimates of radioactive waste generation nor other details related to the generation, handling, processing or controlling of radioactive waste as described in the FSAR. The FSAR will be revised to reflect the storage of DAW in the Unit 2 section of the Service Water Cooling Tower. The Unit 2 Section of the Service Water Cooling Tower is a Seismic Category 1 structure designed to withstand the design basis tornado, hurricane and flood. Existing Station programs for radiation and fire protection will be utilized to ensure that existing limits for on-site and off-site exposure will not be exceeded. All site boundary doses to the general public will be maintained less than the generally accepted guidance for interim storage of DAW as specified in NRC Generic Letter 81-38, "Storage of Low-Level Radioactive Wastes at Power Reactor Sites."

SAFETY EVALUATION CONCLUSIONS: The safety evaluation concluded that the interim storage of low-level radioactive waste or DAW in the Unit 2 Cooling Tower does not involve an unreviewed safety question.

TITLE: Justification for Continued Operation, Field Weld 1-FI-188-01-F0150

PURPOSE: In 1991, NHY conducted a "Weld Records Reverification Program." This program verified the accomplishment of required radiography and completeness of radiography records for Pullman-Higgins (PH) field welds for which the applicable Code specified radiography. The program required that "indeterminate items" (anomalies) which indicated either an unacceptable weld or unacceptable weld documentation would be reported to the NRC. A safety evaluation was also prepared for each weld record anomaly. This safety evaluation was prepared for the weld record anomaly associated with Field Weld 1-FI-188-01-F0150.

SUMMARY DESCRIPTION: Pullman-Higgins field weld 1-FI 188-01-F0150 is a circumferential groove weld on a twelve inch diameter spare electrical penetration outside the Containment Building. This electrical penetration is ASME III, MC Class, and the weld is a Category B joint. This weld connects the penetration sleeve to a prefabricated end cap. This weld joint employs a machined-in backing ring, which fits inside of the end cap assembly. The Pullman-Higgins Field Weld Process Sheet demonstrates that this field weld was radiographed in 1983 in accordance with the Non Destructive Examination (NDE) requirements contained in the 1977 Edition of ASME Section III up through and including the Winter 1977 Addenda (the Code applicable to Seabrook Station).

The weld records package for weld 1-FI-188-01-F0150 could not be located. Based on the lack of weld record documentation, this weld did not meet the record retention requirements of ASME NCA-4134.17 and ANSI N45.2.9. However, other available documentation demonstrated that the radiographic records for this weld were reviewed as part of the Seabrook Station as built records verification process.

Corrective actions completed in response to this records deficiency were to: 1) complete a radiographic examination of field weld 1-FI-188-01-F0150; 2) review the film in accordance with the present programmatic requirements; and 3) include the radiograph and the required radiographic review forms in the NHY records management system. These actions ensured compliance with the Code.

SAFETY EVALUATION CONCLUSIONS: The safety evaluation determined that the identified records deficiency neither compromised the integrity of the Containment Building nor affected the operation of the Station. The mere presence of a records deficiency did not introduce a new failure mechanism nor did it modify the plant in any manner so as to create the possibility of a new accident or malfunction occurring. This record deficiency did not provide any means for an increase in the dose from any previously analyzed accident and did not make any changes to the plant or its design basis. Therefore, the safety evaluation concluded that the identified records deficiency did not involve an unreviewed safety question.

TITLE: Justification for Continued Operation, Field Weld 1-CS-318-02-F0202

PURPOSE: In 1991, NHY conducted a "Weld Records Reverification Program." This program verified the accomplishment of required radiography and completeness of radiography records for Pullman-Higgins (PH) field welds for which the applicable Code specified radiography. The program required that "indeterminate items" (anomalies) which indicated either an unacceptable weld or unacceptable weld documentation would be reported to the NRC. A safety evaluation was prepared for each weld record anomaly. This safety evaluation was also prepared for the weld record anomaly associated with Field Weld 1-CS-318-02-F0202.

SUMMARY DESCRIPTION: Pullman-Higgins field weld 1-CS-318-02-F0202 is a circumferential butt weld on a three inch diameter section of piping in the Chemical and Volume Control System (CVCS). This section of the CVCS is ASME III, Class 2, and Safety Class 2. This weld connects a valve to the piping and is also adjacent to a reducer. This weld is located in the letdown line of the CVCS downstream of the Letdown Heat Exchanger (Tag number CS-E-4).

The weld records package for weld 1-CS-318-02-F0202 contained a Radiograph Inspection Report (RIR) and the radiographic film. The RIR indicated that the radiograph views for all stations of this weld were of acceptable quality. The RIR also contained the required approval signatures.

A review of the radiographic film for this weld was conducted to evaluate issues raised by the NRC during a previous inspection. This evaluation confirmed that the required sensitivity was achieved in the necessary penetrameters in the films for all stations of this weld. Additionally, the density through the body of the penetrameters met the requirements of the ASME Code. The weld area of interest in each film also met the density requirements of the same Code provisions. However, this review also revealed that the comparative densities of the penetrameters to those in the weld area of interest exceeded the minimum/maximum density limitation ranges specified in the ASME Code.

Corrective actions completed in response to this weld record anomaly were to: 1) complete a radiographic examination of field weld 1-CS-318-28-F0202, 2) review the film in accordance with the present programmatic requirements and 3) include the radiograph and the required radiographic review forms in the NHY records management system. These actions ensured compliance with the Code.

SAFETY EVALUATION CONCLUSIONS: The safety evaluation determined that the identified records deficiency neither compromised the integrity of the CVCS nor affected the operation of the Station. The mere presence of a records deficiency did not introduce a new failure mechanism nor did it modify the plant in any manner so as to create the possibility of a new accident or malfunction occurring. This record deficiency did not provide any means for an increase in the dose from any previously analyzed accident and did not make any changes to the plant or its design basis. Therefore, the safety evaluation concluded that the identified records deficiency did not involve an unreviewed safety question.

TITLE: Justification for Continued Operation, Field Weld 1-RC-13-02-F0203

PURPOSE: In 1991, NHY conducted a "Weld Records Reverification Program." This program verified the accomplishment of required radiography and completeness of radiography records for Pullman-Higgins (PH) field welds for which the applicable Code specified radiography. The program required that "indeterminate items" (anomalies) which indicated either an unacceptable weld or unacceptable weld documentation would be reported to the NRC. A safety evaluation was also prepared for each weld record anomaly. This safety evaluation was prepared for the weld record anomaly associated with Field Weld 1-RC-13-02-F0203.

SUMMARY DESCRIPTION: Pullman-Higgins field weld 1-RC-13-02-F0203 is a circumferential butt weld on a twelve inch diameter section of piping in the Residual Heat Removal (RH) System. This section of the RH System is ASME III, Class 2, and Safety Class 2. This weld is located adjacent to check valve CBS V-55 in line 1209-02, which is the RHR Pump 8A supply from the Refueling Water Storage Tank. This field weld was radiographed in 1981 in accordance with the Non Destructive Examination (NDE) requirements contained in the 1977 Edition of ASME Section III up through and including the Winter 1977 Addenda (the code applicable to Seabrook Station).

The weld records package for weld 1-RC-13-02-FO203 contains a Radiograph Inspection Report (RIR) and the radiographic film. The RIR and the radiographic film for only one of this weld's four stations (station 3-0), contain the information and approvals required by the Code. As identified in NHY Corrective Action Request (CAR) 91-010, the radiographic film for stations 0-1, 1-2, and 2-3 lacked the identification of the exposure date, system/line/isometric number, weld number, and manufacturer's identification. The only information contained on the film for these three stations was the station number. Therefore, the film for these three stations did not meet Code requirements.

NHY Nuclear Quality Group personnel verified that the radiographic film for stations 0-1, 1-2, and 2-3, were in fact that of weld F0203. F0203 is the only film available for this weld. Review of the weld process sheets indicates that no repairs were made to this weld before or after the weld was radiographed.

Corrective actions completed in response to this weld record anomaly were to: 1) permanently identify the Code-required information on the radiographic film for field weld 1-RC-13-02-F0203, and 2) Reference the Corrective Action Request (CAR) on the film package for this weld. These actions ensured compliance with the Code.

SAFETY EVALUATION CONCLUSIONS: The safety evaluation determined that the identified records deficiency neither compromised the integrity of the RH System nor affected the operation of the Station. It was verified that radiographic film existed for all stations for field weld 1-RC-13-02-F0203. The weld record deficiency did not introduce a new failure mechanism nor did it modify the plant in any manner so as to create the possibility of a new accident or malfunction occurring. This record deficiency did not provide any means for an increase in the dose from any previously analyzed accident and did not make any changes to the plant or its design basis. Therefore, the safety evaluation concluded that the identified records deficiency did not involve an unreviewed safety question.

TITLE: Justification for Continued Operation, Field Weld 1-CBS-1201-07-F0701

PURPOSE: In 1991, NHY conducted a "Weld Records Reverification Program." This program verified the accomplishment of required radiography and completeness of radiography records for Pullman-Higgins (PH) field welds for which the applicable Code specified radiography. The program required that "indeterminate items" (anomalies) which indicated either an unacceptable weld or unacceptable weld documentation would be reported to the NRC. A safety evaluation was also prepared for each weld record anomaly. This safety evaluation was prepared for the weld record anomaly associated with Field Weld 1-CBS-1201-07-F0701.

SUMMARY DESCRIPTION: Pullman-Higgins field weld 1-CBS-1201-07-F0701 is a circumferential groove weld on a fourteen inch diameter section of piping in the Containment Building Spray (CBS) System. This section of the CBS System is ASME III, Class 2, and Safety Class 2. This weld is located in a section of piping between the Refueling Water Storage Tank (RWST) and the suction of the "B" Train Containment Building Spray Pump. This line also provides a source of water for the "B" Train Safety Injection Pump and the "B" Train Residual Heat Removal Pump. The Pullman-Higgins Field Weld Process Sheet demonstrates that this field weld was radiographed in 1983 in accordance with the Non Destructive Examination (NDE) requirements contained in the 1977 Edition of ASME Section III up through and including the Winter 1977 Addenda (the Code applicable to Seabrook Station).

The weld records package for weld 1-CBS-1201-07-F0701 could not be located. Based on the lack of weld record documentation, this weld did not meet the record retention requirements of ASME NCA-4134.17 and ANSI N45.2.9. However, other available documentation demonstrated that the radiographic records for this weld were reviewed as part of the Seabrook Station as built records verification process.

Corrective actions completed in response to this records deficiency were to: 1) complete a radiographic examination of field weld 1-CBS-1201-07-F0701; 2) review the film in accordance with the present programmatic requirements; and 3) include the radiograph and the required radiographic review forms in the NHY records management system. These actions ensured compliance with the Code.

SAFETY EVALUATION CONCLUSIONS: The safety evaluation determined that the identified records deficiency neither compromised the integrity of the CBS System nor affected the operation of the Station. The mere presence of a records deficiency did not introduce a new failure mechanism nor did it modify the plant in any manner so as to create the possibility of a new accident or malfunction occurring. This record deficiency did not provide any means for an increase in the dose from any previously analyzed accident and did not make any changes to the plant or its design basis. Therefore, the safety evaluation concluded that the identified records deficiency did not involve an unreviewed safety question.

TITLE: Justification for Continued Operation, Field Weld 1-CS-360-08-F0801

PURPOSE: In 1991, NHY conducted a "Weld Records Reverification Program." This program verified the accomplishment of required radiography and completeness of radiography records for Pullman-Higgins (PH) field welds for which the applicable Code specified radiography. The program required that "indeterminate items" (anomalies) which indicated either an unacceptable weld or unacceptable weld documentation would be reported to the NRC. A safety evaluation was also prepared for each weld record anomaly. This safety evaluation was prepared for the weld record anomaly associated with Field Weld 1-CS-360-08-F0801.

SUMMARY DESCRIPTION: Pullman-Higgins field weld 1-CS-360-08-F0801 is a circumferential butt weld on a four inch diameter section of piping in the Chemical and Volume Control System (CVCS). This section of the CVCS is ASME III, Class 2, and Safety Class 2 that connects a 90° long radius elbow to a section of piping. This weld is located in the letdown line of the CVCS downstream of the Regenerative Heat Exchanger (Tag number CS-E-2) and upstream of the Letdown Heat Exchanger (Tag number CS-E-4). The weld records package for weld 1-CS-360-08-F0801 could not be located. Based on the lack of weld record documentation, this weld did not meet the record retention requirements of ASME NCA-4134.17 and ANSI N45.2.9. However, other available documentation demonstrated that the radiographic records for this weld were reviewed as part of the Seabrook Station as-built verification process.

Corrective actions completed in response to this weld record anomaly were to: 1) complete a radiographic examination of field weld 1-CS-360-08-F0801, 2) review the film in accordance with the present programmatic requirements and 3) include the radiograph and the required radiographic review forms in the NHY records management system. These actions ensured compliance with the Code.

SAFETY EVALUATION CONCLUSIONS: The safety evaluation determined that the identified records deficiency neither compromised the integrity of the CVCS nor affected the operation of the Station. The mere presence of a records deficiency did not introduce a new failure mechanism nor did it modify the plant in any manner so as to create the possibility of a new accident or malfunction occurring. This record deficiency did not provide any means for an increase in the dose from any previously analyzed accident and did not make any changes to the plant or its design basis. Therefore, the safety evaluation concluded that the identified records deficiency did not involve an unreviewed safety question.