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Georgia Power
the southern electric system

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50-425

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT
REPORT OF FACILITY CHANGES, TESTS & EXPERIMENTS

In accordance with 10 CFR 50.59 (b) (2), Georgia Power Company (GPC) hereby submits the Vogtle Electric Generating Plant (VEGP) Report of Facility Changes, Tests and Experiments. This reflects changes through March 31, 1995 which is consistent the current Revision 5 of the Updated Final Safety Analysis Report.

Sincerely,

C. K. McCoy

CKM/JLL

Enclosure: Report of Facility Changes, Tests and Experiments.

xc: Georgia Power Company
Mr. J. B. Beasley, Jr.
Mr. M. Sheibani
NORMS

U. S. Nuclear Regulatory Commission
Mr. S. D. Ebneter, Regional Administrator
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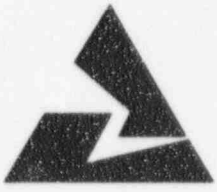
IE47

10 CFR 50.59(B) REPORT OF FACILITY CHANGES, TESTS & EXPERIMENTS. OCTOBER 21, 1993 THRU MARCH 31, 1995

VOGTLE ELECTRIC GENERATING PLANT
UNITS 1 & 2



10 CFR 50.59(B) REPORT OF FACILITY CHANGES OCTOBER 21, 1993 THRU MARCH 31, 1995

VOGTLE ELECTRIC GENERATING PLANT
UNITS 1 & 2

SUBJECT: DCP: 89-V2E0052, revision 1, sequence 1

DESCRIPTION: The design change upgrades the instrumentation used during RCS mid-loop and drain down operations by providing two differential pressure transmitters located inside containment between the primary and the secondary shield walls.

SAFETY EVALUATION: The design change is physically disconnected from the reactor coolant system (RCS) in modes 1 through 4. The piping can be isolated to prevent a loss of RCS inventory during Mode 5 or 6 if a leak were to occur. The installation is seismically supported so as not to fall and damage other equipment during a seismic event. None of the piping or tubing penetrates the containment. Proper electrical separation is maintained in implementation of the design change. The margin of safety defined by the bases of Technical Specifications is not reduced because the design change assists in providing accurate level instrumentation for the operators.

SUBJECT: DCP: 89-V2N0295, revision 0, sequence 1

DESCRIPTION: The design change makes several instrumentation changes in the turbine building to auxiliary building Train A tunnel ventilation system. The change minimizes a dead-head operation of the turbine building electrical tunnel ventilation fan and allows for a more accurate assessment of tunnel temperature.

SAFETY EVALUATION: The change does not affect the ventilation system's capability to cool the tunnel. Failure of the ventilation fan to operate after implementation of the change has the same consequences as under the previous design. The penetration seals that were breached during implementation of the change were resealed per the plant procedures. The conduit, junction box and temperature switch added by the design change are mounted to seismic category 1 requirements.

SUBJECT: DCP: 90-VAN0108, revision 0, sequence 1

DESCRIPTION: The design change installs a portable skid mounted microfiltration subsystem in the liquid waste system. The system interfaces with the existing waste processing equipment. The system is located within the Alternate Radwaste Building which meets the Regulatory Guide 1.143 criteria, and is classified as a seismic category 2 structure. The process equipment for the subsystem is within a shielded vault to minimize exposure to operators.

SAFETY EVALUATION: Associated systems of the subsystem and the subsystem itself do not perform safety functions and are not required to function to mitigate the consequences of an accident as described in the FSAR. The failure of the system will not cause the malfunction of any equipment assumed to function in FSAR analyzed accidents. Per the system calculations, the offsite effects have been determined to be within the criteria of standard review plan (SRP) 15.7.3 and a small fraction of the dose criteria of 10 CFR 100. The margin of safety defined by the bases for the Technical Specifications has not been affected by the change.

SUBJECT: DCP: 91-V1N0003, revision 0, sequence 1

DESCRIPTION: The design change replaces Unit 1's Proteus and Emergency Response Facility (ERF) computer system with a new computer system named Integrated Plant Computer (IPC).

SAFETY EVALUATION: The new system updates the monitoring functions of the plant. All of the design criteria, HVAC cooling, seismic, fire protection, and physical and electrical separation of safety-related and non-safety related equipment have been maintained. The system does not control any functions

of the plant. The design change does not reduce the margin of safety as defined in the Technical Specifications.

SUBJECT: DCP: 91-V2N0004, revision 0, sequence 1

DESCRIPTION: The design change replaces Unit 2's Proteus computer system with a new computer system named Integrated Plant Computer (IPC).

SAFETY EVALUATION: The new system updates the monitoring functions of the plant. All of the design criteria, HVAC cooling, seismic, fire protection, and physical and electrical separation of safety-related and non-safety related equipment have been maintained. The system does not control any functions of the plant. The design change does not reduce the margin of safety as defined in the Technical Specifications.

SUBJECT: DCP 91-V1N0022, revision 0, sequence 1

DESCRIPTION: The design change replaces existing float type steam condensate drain pot level measuring instrumentation with an electronic system which monitors level by measuring the electrolytic conductivity differences between steam and water. The change will eliminate water entrapment in the instrument lines due to the modified pipe routing. The replacement level switch controls will also reduce high temperature failure by locating the module away from the heat source.

SAFETY EVALUATION: The design change does not alter either the function or logic of the level instrumentation and controls, and will enable the steam condensation drain pot level controls to operate properly. The operation of the level switches and associated valves is not assumed by any accident analysis in the FSAR. All high energy piping being modified is one inch diameter or less and is not relocated beyond the area in which it is currently located. The design change meets the required seismic criteria. The margin of safety defined by the bases of Technical Specifications is not reduced since the design change assures that the steam drain pot system will operate properly.

SUBJECT: DCP: 91-V1N0043, revision 1, sequence 1

DESCRIPTION: The design change converts the reactor coolant system 25 micron backflushable filter to a 0.2 micron cartridge type filter so that a disposable cartridge filter can be used in the filter vessel. Also, the filter closure head is modified to reduce the time required to replace the cartridge filter. In addition, an essential chilled water line was rerouted to allow for the filter cask to be transported from the area for proper disposal.

SAFETY EVALUATION: No equipment or component required to mitigate an accident is located in the filter pit that could damage the filter vessel or associated piping located in the filter vessel pit. The pipe and pipe support stresses were determined to be within the appropriate design code allowable stresses. The design change does not adversely affect the operation or function of any component required to mitigate an accident. The margin of safety as defined in the Technical Specifications is not reduced by this change.

SUBJECT: DCP: 91-V1N0072, revision 0, sequence 1

DESCRIPTION: The design change replaces the pump shaft packing with mechanical seals on the motor and turbine driven auxiliary feedwater (AFW) pumps. The associated seal water flush piping is also

rerouted away from the packing stuffing box to the flushing inlet pipe connection on the new shaft seal gland ring on each seal. The change eliminates a high leakoff in the existing packing shaft seals.

SAFETY EVALUATION: The replacement seals conform to the applicable requirements of ASME codes. The change does not affect the pressure, temperature, seismic and environmental transients to which the pumps are qualified, nor it will cause the pumps not to perform their safety function when required. Also, the seals will have no adverse affect on any other system required to mitigate an accident. The mechanical type sealing device has the capability of providing a more consistent seal with a less likely chance of any damage to the pump shaft from improper adjustment.

SUBJECT: DCP: 91-V1N0150, revision 0, sequence 1

DESCRIPTION: The design change replaces certain level instruments which measure the RCS level, and modifies the mid-loop sight glass design with a single vertical flexible, clear plastic hose "sight glass".

SAFETY EVALUATION: The installation is seismically supported so as not to fall and damage other equipment during a seismic event. None of the piping or tubing added penetrates the containment. The change precludes sump blockage during a design basis accident. The margin of safety defined by the bases of Technical Specifications is not reduced because the design change assures that the operators have accurate level instrumentation.

SUBJECT: DCP: 91-V1N0156, revision 1, sequence 1

DESCRIPTION: The design change removes centrifugal charging pump (CCP) alternate miniflow relief valves 1PSV-8510 A&B, and adds pressure control logic to the upstream motor operated valves 1HV-8508 A&B for CCP protection. The design change improves system reliability while it simultaneously reduces the maintenance effort.

SAFETY EVALUATION: None of the initiating events for accidents discussed in FSAR section 15.4.6 are affected by the design change. The change is of such a nature that the likelihood of CVCS malfunctions that could result in increased RCS inventory are not increased. The ECCS performance for the modified design change has been evaluated to ensure that the performance is acceptable and remains bounded by the current licensing basis. The motor operated valves (MOVs) affected by this design change were evaluated to ensure that the actuators are properly sized for the modified application. Safety-related components that are added by the design change are seismically and environmentally qualified for the application. The probability of a malfunction to equipment important to safety is not increased. The design changes were evaluated to ensure that ECCS functions addressed in the Technical Specifications are not affected, and the margin of safety defined in the Technical Specifications is not reduced.

SUBJECT: DCP: 91-V1N0204, revision 0, sequence 1

DESCRIPTION: The design change improves performance of the terry turbine by rerouting high pressure and low pressure leakoff lines separately. The high pressure line consists of the turbine case drain and the trip and throttle valve high pressure leakoff. The low pressure line consists of leakage from turbine case glands, governor valve stem and trip and throttle valve low pressure leakoff.

SAFETY EVALUATION: The seismic design requirements are maintained for the modified lines. The safety function of the auxiliary feedwater system is not affected by the design changes. The affected penetration is resealed to its original criteria so that the flooding characteristics of rooms 104 and 106 are not impacted by the design change. The modification does not degrade the capability of the

turbine. The margin of safety is not reduced because the change meets the same design, installation, inspection and testing requirements as the original design.

SUBJECT: DCP: 91-V1N0216, revision 0, sequence 1

DESCRIPTION: This completed design change provides an option for certain HVAC filter exhaust systems to use the existing mist eliminator pack or to use a new model which is installed by removing the moisture eliminator pads and grids from their frame, and installing a slightly smaller frame inside the existing frame to accommodate the new model of the moisture eliminator pad. This pad will be held in place by retainer rods.

SAFETY EVALUATION: The function and operation of systems associated with the filtration units are not adversely affected. The design change has the same safety and seismic rating as originally designed, and maintains the seismic qualification of the filtration units. The margin of safety is not reduced because the change meets the same rigid design, installation, and inspection and testing requirements as set forth in the original design for the filtration systems.

SUBJECT: DCP: 91-V1N0219, revision 0, sequence 1

DESCRIPTION: The design change replaces the manual voltage regulator on the emergency diesel generators with a second automatic regulator similar to that currently installed in the system. Interconnecting logic associated with the regulators is modified to accommodate the regulator changeout.

SAFETY EVALUATION: Operation of the diesel generator is not affected by the change. All components are manufactured and installed in accordance with appropriate regulations and criteria so that the original qualification of the panel is not degraded. The change increases the availability of the diesel generator by providing a means to quickly replace a faulty regulator in the generator control circuit. The consequences of an accident is reduced due to increased availability of standby power. The margin of safety is not reduced because the manual regulator is not used or taken credit for and the two automatic regulators are independent and functionally equivalent.

SUBJECT: DCP: 91-V2N0220, revision 0, sequence 1

DESCRIPTION: The design change replaces one-out-of-one logic for pressure switch PSL-7070 with two-out-of-three logic for the turbine extraction valves closure on turbine trip. The setpoints for the new switches remain at 15 psig, similar to the PSL-7070.

SAFETY EVALUATION: None of the components added or modified by the design change are safety-related. The change provides more reliable operation of the turbine extraction steam system. Neither the turbine overspeed protection system, the reactor trip circuitry nor the reactor protection systems are affected by the design changes. Since the results of a turbine trip or turbine overspeed event are not changed by the design change, the margin of safety is not reduced.

SUBJECT: DCP: 91-V1N0226, revision 0, sequence 1

DESCRIPTION: The design change removes the reactor cavity filter system skid, the intake strainer, and the associated piping from the Unit 1 containment building. The system's supply and return piping embedded in concrete is abandoned. A replacement system is currently being used to provide reactor cavity filtration.

SAFETY EVALUATION: The design change meets the applicable design criteria and standards. The change has no effect on the spent fuel cooling and purification system, its components, or the related systems. There is no change in the acceptable radiation limits for the plant as currently licensed. The change does not initiate any new accidents. The change does not exceed any acceptance limits nor does it reduce the margin of safety defined in the basis for any Technical Specifications.

SUBJECT: DCP: 91-V2N0227, revision 0, sequence 1

DESCRIPTION: The design change addresses removal of the reactor cavity filtration system. The area is to be used as lay down area during refueling outages. A replacement system is currently being used to provide reactor cavity filtration.

SAFETY EVALUATION: The design change meets all applicable design criteria and standards. The change does not adversely affect the spent fuel cooling and purification system, its components or the related systems. Any of the accidents or transients that may have radiological consequences are unaffected by the change. The abandoned portions of pipe and supports meet seismic requirements. The change does not exceed any acceptance limits nor does it reduce the margin of safety identified in the basis for any Technical Specifications.

SUBJECT: DCP: 92-V2N0006, revision 0, sequence 1

DESCRIPTION: The design change replaces the pump packing with mechanical seals on the auxiliary feedwater pumps. The associated seal water flush piping was rerouted away from the packing stuffing box to the flushing inlet pipe connection on the new shaft seal gland ring on each seal.

SAFETY EVALUATION: The design change conforms to the applicable ASME requirements. The seals do not affect the pressure, temperature, seismic and environmental transients to which the pumps are qualified nor will they cause the pumps not to perform their safety function when required. The change has no adverse affect on any other system required to mitigate an accident. The new orientation of the seal water flush piping was evaluated per the seismic loads associated with the applicable pump. The design change does not reduce the margin of safety as defined in the Technical Specifications.

SUBJECT: DCP: 92-V1N0032, revision 0, sequence 1

DESCRIPTION: The change provides design to reduce time required in installing the reactor cavity vent "banana" nuclear instrumentation and emergency refueling canal drain covers during an outage. The design involves use of toggle action-tightening bolts and nuts where appropriate, to compress new EPDM rubber seals underneath each cover. The toggle fastening method eliminates the individual torquing of bolts and the need for application of the RTV material.

SAFETY EVALUATION: The materials used either meet or exceed the requirements of the specifications for the existing equipment. The removal of the NI junction boxes does not impact the operation, response or qualification of the instrumentation. No equipment important to safety is affected by the design change. The change employs the same design standards as does the system being replaced. Therefore, the margin of safety as defined in the Technical Specifications is not reduced.

SUBJECT: DCP: 92-V2N0033, revision 1, sequence 1

DESCRIPTION: The change replaces the alternate B-train emergency boration solenoid operated flow control valve HV-8439 with a manually operated gate valve, 1208-U4-505. The power and the control wiring is removed and spared. The position indication instrumentation found on the main control board (MCB) and the B-train remote shutdown panel is removed, covered with a plate and spared. Wiring previously routed to the valve is stowed and capped inside the existing conduit.

SAFETY EVALUATION: The replacement of solenoid valve HV-8439 with manual valve 1208-U4-505 does not impact the failure mechanism nor does it result in a new dilution flow path. This valve is in an alternate safety-grade boration path from the boric acid transfer pumps to the charging pump suction. The modification meets all required design criteria for the system as well as seismic category 1 requirements. This modification has no adverse impact on any accidents analyzed in the FSAR. The ability to borate the RCS through the existing normal and emergency paths in response to a LOCA is not impacted by this change. Removal of the solenoid valve and its associated controls from the main control panel and the B-train safe shutdown panel has been evaluated for impact to the Fire Event Safe Shutdown Evaluation and the Control Room Fire Alternate Shutdown Evaluation. The pressure rating, materials, project class and code requirements for the replacement valve meet the design requirements for the piping system. The Technical Specifications require two boration flow paths to be operable for modes 1, 2, 3 and 4, and one path be operable for modes 5 and 6. The replacement of valve HV-8439 leaves three remaining safety grade cold shutdown paths available in addition to the normal boration path. Since the path through HV-8439 does not meet the flow requirements of 30 gpm, this path has not been relied upon in the operating procedures to meet the requirements of the Technical Specifications .

SUBJECT: DCP: 92-VCN0065, revision 0, sequence 1

DESCRIPTION: The design change provides several modifications to the HVAC system for the TSC facility to eliminate nuisance alarms and improve system operability.

SAFETY EVALUATION: The changes do not involve any safety related systems or components or other equipment used to mitigate any accidents evaluated in the FSAR. The operation of the emergency response team is not affected. Electrical cable separation is maintained. The changes to the affected systems do not reduce the margin of safety as defined in the basis for any Technical Specifications.

SUBJECT: DCP: 92-V2N0078, revision 0, sequence 1

DESCRIPTION: This design change provides a permanent jacket water chemical addition system to both A and B trains of the Emergency Diesel Generator. Each system includes a mixing tank, a chemical injection pump, a recirculation line with flow orifice, and connecting valves and piping. Also included in each system is a pump motor, motor starter with local start/stop push-buttons, a disconnect switch and a 120-volt power supply. Isolation of the safety-related jacket water system is provided for each system by a normally closed, manually operated isolation valve. A valve is added to an existing plant demineralized water vent line in the diesel generator room associated with each train.

SAFETY EVALUATION: Separation of safety-related circuits is maintained by this design change. The safety-related boundary of the jacket water system is maintained by the addition of an isolation valve. The piping which transmits corrosion inhibitor into the jacket water system is seismically supported. The addition of a permanent chemical addition system to the diesel generator jacket water system does not reduce the margin of safety as defined in the bases for any Technical Specifications.

SUBJECT: DCP: 92-V1N0100, revision 0, sequence 1

DESCRIPTION: The design change addresses addition of lockout relays (LOR) to 4KV and 13.8KV switchgear for motor loads which start by an automatic signal process. Also, wiring modifications are added to effect the necessary control circuitry to trip the circuit breaker, prevent reclosing of the breaker, and maintain "bypassed" status on the system status monitor panel until deliberate action is taken to reset the relay after the circuit breaker is opened due to a protective relay trip. All wiring changes are internal to the switchgear.

SAFETY EVALUATION: Normal operation of the relays provides the same tripping action as the present configuration. In case of an LOR failure, backup protection will prevent propagation of a fault beyond the problem bus. All changes meet the requirements for seismic category 1 and Class 1E circuitry installation. No new accident condition is created by the change. Consequently, the margin of safety is not reduced by this change.

SUBJECT: DCP: 92-V1N0134, revision 0, sequence 1

DESCRIPTION: The design change replaces certain check valves with a combination of new locked closed globe valves and new check valves for containment isolation in the chemical feed lines utilized during steam generator wet lay-up periods. The condensate chemical injection system provides hydrazine and ammonia to the condensate and feedwater systems for corrosion control.

SAFETY EVALUATION: The change improves the operational functions of the system. By adding the globe valves, the structure is not degraded, redundancy is maintained and the reliability of the system is increased. The design change meets the seismic category 1 requirements. The margin of safety as defined in the Technical Specifications is not reduced by the design change.

SUBJECT: DCP: 92-VAN0140, revision 0, sequence 1

DESCRIPTION: The design change reworks room 120 in the Plant Entry and Security Building (PESB) for the installation of a new security computer system.

SAFETY EVALUATION: The design change is non-1E and non-safety related. No other safety related equipment is affected. Electrical separation is maintained. The security system is not included in the Technical Specifications.

SUBJECT: DCP: 92-V1N0141, revision 0, sequence 1

DESCRIPTION: The design change converts residual heat removal (RHR) pumps 1-1205-P6-001 and -002 from the existing close-coupled configuration to a removable flanged shaft configuration in order to decrease radiation exposure during pump maintenance and to improve overall reliability of the RHR pumps.

SAFETY EVALUATION: The design change does not affect the assumptions used in the accident analyses or component evaluations. The design performance of the RHR pumps and for the related systems is not changed. No new failure modes for the RHR pumps or the systems are created by the design change. The modification conforms to the seismic and environmental requirements. No new hazards are introduced by the change. The margin of safety is not reduced because the design does not affect the availability, operability, or performance of the RHR system.

SUBJECT: DCP: 92-V2N0142, revision 0, sequence 1

DESCRIPTION: The design change converts RHR pumps 2-1205-P6-001 and -002 from the existing close-coupled configuration to a removable flanged shaft configuration in order to decrease radiation exposure during pump maintenance and to improve overall reliability of the RHR pumps.

SAFETY EVALUATION: The design change does not affect the assumptions used in the accident analyses or component evaluations. The design performance of the RHR pumps and for the related systems is not changed. No new failure modes for the RHR pumps or the systems are created by the design change. The modification conforms to the seismic and environmental requirements. No new hazards are introduced by the change. The margin of safety is not reduced because the design does not affect the availability, operability, or performance of the RHR system.

SUBJECT: DCP: 92-V1N0144, revision 0, sequence 2

DESCRIPTION: The design change reduces the KVA rating for transformer ANBL11X from 30 KVA to 22.5 KVA in an effort to make this transformer more reliable. (Certain modification drawings associated with the change are safeguard information).

SAFETY EVALUATION: This design change contains safeguard information. Implementation of the design change does not increase the consequences of an accident or the probability of an accident. It does not effect equipment, system, or components required to mitigate the consequences of an accident as described in the FSAR. The margin of safety has not been decreased as described in the basis for any Technical Specifications.

SUBJECT: DCP: 92-V1N0144, revision 0, sequence 4

DESCRIPTION: The design change replaces certain common Sola ferroresonant regulating transformers with distribution class transformers with tapped primaries in an effort to make these power supplies more reliable. All of the replaced transformers are safety class non-1E and serve safety class non-1E loads.

SAFETY EVALUATION: The transformers and the loads supplied from the transformers are not required to function for accident mitigation or for safe shutdown. The loss of any non-1E transformer is bounded by the loss of non-emergency AC power to plant auxiliaries. The transformers meet the seismic category 2 requirements. Calculations were performed to optimize the transformer tap settings. The margin of safety is not reduced because the transformers do not supply power to safety-related equipment required for safe shutdown or mitigation and control of accident conditions.

SUBJECT: DCP: 92-V2N0145, revision 0, sequence 1

DESCRIPTION: The design change lowers the total KVA rating for certain Sola ferro resonant transformer banks by determination and removal of several transformers comprising the bank. Also, overload protection on the primary side transformers is decreased by the design change.

SAFETY EVALUATION: The design change involves only non-1E transformers which do not supply loads required for accident mitigation or for safe shutdown. The loss of the transformer is bounded by the loss of non-emergency AC power to the plant auxiliaries. The transformers are qualified to seismic category 2 requirements. The margin of safety as defined in any Technical Specifications is not reduced

because the transformers do not supply loads for safe shutdown or mitigation and control of accident conditions.

SUBJECT: DCP: 92-V2N0145, revision 0, sequence 3

DESCRIPTION: The design change lowers the total KVA rating for four specific Sola ferro resonant transformer banks by determination and removal of certain 7.5 KVA units. Furthermore, the primary side circuit breaker rating is reduced to maintain appropriate overcurrent protection. Two class-1E primary side circuit breakers are replaced with breakers containing alarm switches.

SAFETY EVALUATION: The design change does not increase the probability of the loss of class 1E transformers. Increasing the load on the remaining transformers improves reliability since the transformers perform best at unity power factor and full load conditions. The change does not alter the failure mode of any safety related equipment or system components. The transformers are qualified to seismic category 2 requirements. The margin of safety as defined in any Technical Specifications is not reduced because the design change does not affect the operation of safety related equipment required for safe shutdown or mitigation and control of accident conditions.

SUBJECT: DCP: 92-V1N0156, revision 0, sequence 2

DESCRIPTION: The design modifies the containment cooling system by making available chilled water to cooling coils of the train B containment auxiliary air cooler and reactor cavity cooler during refueling outages. The affected nuclear service cooling water (NSCW) and new chilled water lines are insulated. A small portion of the fire protection feed pipe is relocated to avoid interference, but the logic, spray pattern and the operation of the system remains unaffected.

SAFETY EVALUATION: The normal chilled water system is a non-safety related system, and is designed to the 2/1 seismic requirements. The system is connected to the NSCW system only during refueling outages. The NSCW lines are designed to seismic 1 requirements. The design change does not degrade the capability for isolating the affected portion of the NSCW piping from the containment. The flooding sources and penetration seals were evaluated and found to be acceptable. The margin of safety is not reduced because the change meets the same design, installation, inspection and testing requirements as set forth in the original design of the NSCW and normal chilled water systems.

SUBJECT: DCP: 92-V2N0157, revision 0, sequence 1

DESCRIPTION: The design modifies the containment cooling system by making available chilled water to cooling coils of the train B containment auxiliary air cooler and reactor cavity cooler during refueling outages. The affected nuclear service cooling water (NSCW) and new chilled water lines are insulated. A small portion of the fire protection feed pipe is relocated to avoid interference, but the logic, spray pattern and the operation of the system remains unaffected.

SAFETY EVALUATION: The normal chilled water system is a non-safety related system, and is designed to the 2/1 seismic requirements. The system is connected to the NSCW system only during refueling outages. The NSCW lines are designed to seismic 1 requirements. The design change does not degrade the capability for isolating the affected portion of the NSCW piping from the containment. The flooding sources and penetration seals were evaluated and found to be acceptable. The margin of safety is not reduced because the change meets the same design, installation, inspection and testing requirements as set forth in the original design of the NSCW and normal chilled water systems.

SUBJECT: DCP: 92-VAN0161, revision 0, sequence 1

DESCRIPTION: The design change standardizes the design and documentation associated with the alternate radwaste building (ARB) and associated systems, and removes components which are not utilized. Also, tagging changes are made where needed to better identify the components and subsystems in use.

SAFETY EVALUATION: Neither the systems that interface with the ARB and its associated systems nor the ARB itself perform a safety function, and are not required to function to mitigate the consequences of an accident described in the FSAR. The physical changes were evaluated and determined to have no effect on the operation of any equipment that remains. The margin of safety is not reduced because the affected systems are not described in the Technical Specifications and their bases to the level of detail of what components are needed to accomplish the filtration and processing of liquid radioactive wastes and spent resins.

SUBJECT: DCP: 92-V1N0175, revision 0, sequence 1

DESCRIPTION: The design change adds corrosion product monitors to the turbine plant sampling system. The system collects, cools, analyzes, controls, alarms, and records water quality from various sampling points throughout the turbine building, yard and auxiliary building.

SAFETY EVALUATION: The portions of affected systems are not required to be functional following a design basis accident nor are they required to support the safe shutdown of the reactor under accident conditions. The margin of safety as defined in the basis for any Technical Specifications is not reduced because the operation and function of any safety-related equipment, component, or system is not adversely affected by the design change.

SUBJECT: DCP: 92-V2N0176, revision 0, sequence 1

DESCRIPTION: The design change adds corrosion product monitors to the turbine plant sampling system. The system collects, cools, analyzes, controls, alarms, and records water quality from various sampling points throughout the turbine building, yard and auxiliary building.

SAFETY EVALUATION: The portions of affected systems are not required to be functional following a design basis accident nor are they required to support the safe shutdown of the reactor under accident conditions. The margin of safety as defined in the basis for any Technical Specifications is not reduced because the operation and function of any safety-related equipment, component, or system is not adversely affected by the design change.

SUBJECT: DCP: 92-VAN0182, revision 2, sequence 1

DESCRIPTION: The design change provides for additional electrical power receptacles in the control room, permanently installing two telephones and modifying the wall which separates room R-162 from the control room.

SAFETY EVALUATION: All raceways and equipment mounting are per the seismic category 1 criteria. The design change does not affect adversely the response to a control room fire for safe shutdown of the plant. No equipment important to safety is added/modified by the design change. The margin of safety is not reduced because no system or component described in the Technical Specifications is adversely affected by the design change.

SUBJECT: DCP: 92-VAN0183, revision 0, sequence 1

DESCRIPTION: The design changes the roofing system on the Auxiliary Building roof from a liquid applied elastomer to a "built up" system. The "built-up" system consists of asphalt, insulation board, lightweight cellular concrete, and several mat sheets covered with a bitumen membrane seal sheet.

SAFETY EVALUATION: The design change does not adversely affect equipment deemed important to safety nor does it affect the results of the maximum flood evaluations. The calculations determined that the roof is capable of withstanding the additional weight under the modification. The change does not modify the original operating characteristics of any Technical Specifications required systems and the changes provided under the design change meet the requirements of plant design criteria.

SUBJECT: DCP: 92-V1N0190, revision 0, sequence 1

DESCRIPTION: The design change installs a containment penetration local leak rate test (LLRT) in the chemical and volume control system (CVCS) and volume control system RCP seal water leak off line between the test vent containing valve 1-1208-U4-463 and the vent line containing valve 1-1208-X4-460. The addition of the valve will reduce the probability of an inadvertent spill. Also, the change replaces a blind flanged connection located at the end of the CVCS seal water leak off line test connection branches with a threaded test connection.

SAFETY EVALUATION: Addition of the valve by this design conforms to the same design requirements as the system in where it is being added. The test connection maintains the requirements for the single isolation criteria. The pipe stresses and pipe support stresses are within the appropriate design requirements. The design change reduces the possibility of a flooding accident. The margin of safety is not reduced because no system or component is adversely affected by the design change.

SUBJECT: DCP: 92-V2N0196, revision 0, sequence 1

DESCRIPTION: The design change adds a chilled water type cooling coil unit with fan and associated controls in the steam generator blowdown (SGBD) heat exchanger rooms C02/C135. The change lowers the room temperature sufficiently to allow for normal operation of the steam generator blowdown system.

SAFETY EVALUATION: The room coolers and associated systems do not perform safety functions and are not required to safely shutdown the plant. Components added by this change are supported per the seismic category 2 over 1 criteria. Addition of the room coolers does not result in increased consequences. The design change does not introduce new types of accidents nor does it create any new type of failure. The margin of safety is not reduced because the blowdown system, piping penetration filtration and exhaust system and area temperature monitoring are not adversely affected by the design change.

SUBJECT: DCP: 92-VAN0208, revision 0, sequence 1

DESCRIPTION: The design change decommissions certain non-essential radiation monitor channels by removing radiation check sources, de-terminating and sparing power sources' signal and control wiring, disconnecting piping, and abandoning the monitor skids in place.

SAFETY EVALUATION: No changes are made to the design, function or operation of the NSCW system or the radiation monitoring system. They neither monitor effluent releases nor provide input to a safety-related system. No other systems are affected and the information provided by the subject

monitors is redundant or unnecessary. The affected monitors are not discussed in the Technical Specifications.

SUBJECT: DCP: 92-VAN0210, revision 0, sequence 1

DESCRIPTION: The design change replaces certain sampling system recorders in the turbine plant sampling and auxiliary steam systems, with digital data recorders.

SAFETY EVALUATION: The change has no adverse affect on the ability of the systems to perform their required functions. All changes meet the requirements of design, material and construction standards specified in the appropriate design criteria. No new radiological release path is created by the change. The change results in more reliable and maintainable recorders. No new types of failure modes are introduced by the change. The margin of safety is not reduced since the design change meets the requirements of plant design criteria.

SUBJECT: DCP: 92-VAN0211, revision 0, sequence 1

DESCRIPTION: The design change replaces the Waste Gas Analyzer panels (Units 1,2 and A) with two wall mounted Hoffman boxes, which will house all required electronics, valves and tubing.

SAFETY EVALUATION: The design change enhances the performance of the Gaseous Waste System and does not adversely affect any safety system postulated to function in any FSAR accident analysis. Failure of the hydrogen/oxygen analyzer does not initiate or contribute to the failure of systems or components postulated to function in the FSAR. The change does not introduce any interfaces or alter setpoints to any safety-related equipment or systems. The design change does not reduce the margin of safety as defined in any Technical Specifications.

SUBJECT: DCP: 93-V1N0028, revision 0, sequence 1

DESCRIPTION: The design change adds permanent shielding to the reactor vessel head, four access doors in the middle of the cooling shroud of the reactor vessel integrated head package and a removable connection to the reactor vessel level instrumentation system (RVLIS).

SAFETY EVALUATION: The change does not increase stresses in the reactor vessel and connected components beyond the ASME allowable. No new accidents are created by the design change. The hydrogen generation analysis is not affected by the change. The coating of shielding does not increase the possibility of the containment sump screen blockage during LOCA. The margin of safety as defined in the Technical Specifications is not reduced by the design change.

SUBJECT: DCP: 93-V1N0050, revision 0, sequence 1

DESCRIPTION: The design change replaces the Woodward Model EGA analog control governor with a Woodward Model 701 digital control governor in emergency diesel generator (EDG) .

SAFETY EVALUATION: The operability and function of the EDG and the governor are not adversely affected by the design change. No new failure modes are created/introduced by the change. No new penetrations were added. All breached penetrations were resealed per the plant procedures. The EDGs are electrically isolated from each other and the associated power and control cables for each EDG are routed so that the requirements for separation and independence are maintained. The replacement qualifies to the applicable requirements for use in safety-related applications and as applied in NUREG

CR-5057. The margin of safety is not reduced because the reliability of the EDGs is not reduced as a result of the replacement.

SUBJECT: DCP: 93-V2N0051, revision 0, sequence 1

DESCRIPTION: The design change replaces the Woodward Model EGA analog control governor with a Woodward Model 701 digital control governor in emergency diesel generator (EDG) .

SAFETY EVALUATION: The operability and function of the EDG and the governor are not adversely affected by the design change. No new failure modes are created/introduced by the change. No new penetrations were added. All breached penetrations were resealed per the plant procedures. The EDGs are electrically isolated from each other and the associated power and control cables for each EDG are routed so that the requirements for separation and independence are maintained. The replacement qualifies to the applicable requirements for use in safety-related applications and as applied in NUREG CR-5057. The margin of safety is not reduced because the reliability of the EDGs is not reduced as a result of the replacement.

SUBJECT: DCP: 93-V2N0060, revision 0, sequence 1

DESCRIPTION: The design change replaces the Unit 2 Emergency Response Facility Computer system with the Integrated Plant Computer (IPC) system.

SAFETY EVALUATION: The design change updates the monitoring functions of the plant. All of the design criteria, HVAC cooling, seismic, fire protection, and physical and electrical separation of safety-related and non-safety related equipment have been maintained. The system does not control any functions of the plant. The design change does not reduce the margin of safety as defined in the Technical Specifications.

SUBJECT: DCP: 93-V1N0061, revision 0, sequence 1

DESCRIPTION: The design change provides additional Class 1E circuit breakers in 4.16 kV electrical buses 1AA02 and 1BA03. The design change also provides a standby offsite power (SOP) source to the Unit 1 Class 1E electrical buses to help mitigate the unlikely loss of all preferred, offsite power. The SOP consists of a 13.8 kV power circuit from Plant Wilson, two switchgear breakers located in the Unit 1 low-voltage switchyard, and cable bus with isolation switches to connect the transformer output to the existing transformers (RATs) and the Class 1E switchgear. These circuit breakers are placed in the empty cubicles that connect the alternate offsite power sources (the reserve auxiliary transformer of the other train) to the bus.

SAFETY EVALUATION: The addition of RAT circuit breakers deletes the "missing breaker scheme" from the 4 kV safety related buses and provides an improved method of transferring loads to the alternate train RAT when maintenance is to be performed on the normal RAT. The new circuit breakers are qualified for use in their application and will not affect the seismic qualification of the Class 1E switchgear. Malfunction of the circuit breaker would result in a circuit breaker trip and automatic start of the EDG associated with the electrical bus per the design. The change does not affect the protective relaying and associated setpoints for both the normal and alternate offsite source circuit breakers. The new circuit breakers are operated within the requirements of the Technical Specifications.

SUBJECT: DCP: 93-V1N0061, revision 0, sequence 3

DESCRIPTION: The design change provides the electrical modifications and the switchyard foundation and steel design for the offsite power source emanating from the Plant Wilson switchyard. Sequence one of this DCP provided the power cable pull design, including conduit needed from pullbox 2 to the new switchgear and transformer foundation locations. It also provided for the addition of new, Class 1E circuit breakers in the empty cubicles on switchgear 1AA02 and 1BA03. Sequence two provided the concrete foundations design for the new transformer, transformer neutral grounding resistor, and switchgear.

SAFETY EVALUATION: There is no single failure of the Class 1E, 4.16-kV circuit breakers that could result in both buses being connected to the same offsite source. Physical separation of the offsite power source cable buses is provided to the same degree as in the original plant design. A review determined that grid stability is not affected. The power cable from the Plant Wilson switchyard to the standby auxiliary transformer (SAT) is adequately sized for power flow, short circuit conditions, and voltage drop. The connection of the SAT to the Class 1E buses does not affect the fire event safe shutdown circuit analysis. Placing both Class 1E, 4160 VAC buses on the same power source during modes 5 or 6 and taking a reserve auxiliary transformer (RAT) out of service is acceptable. No new penetrations were added. Replaced or added equipment was procured to comparable specifications as the RATs and the cable bus between the RAT and the Class 1E buses. Neither the EDG capability to power the Class 1E loads nor the sequencer's ability to sequence the load is affected by the SAT. The addition of disconnect switches in the cable bus between the RAT and its Class 1E bus does not increase the likelihood of offsite source cable bus failure. Based on a review of Technical Specifications and the discussions above, the activity does not reduce the margin of safety as defined in the basis of any Technical Specification.

SUBJECT: DCP: 93-V2N0062, revision 0, sequence 1

DESCRIPTION: The objective of this design change is to provide additional Class 1E circuit breakers in 4.16-kV electrical buses 2AA02 and 2BA03. These circuit breakers are placed in the empty cubicles that connect the alternate offsite power sources (the reserve auxiliary transformer of the other train) to the bus.

SAFETY EVALUATION: The addition of RAT circuit breakers deletes the "missing breaker scheme" from the 4 kV safety related buses and provides an improved method of transferring loads to the alternate train RAT when maintenance is to be performed on the normal RAT. The new circuit breakers are qualified for use in their application and do not affect the seismic qualification of the Class 1E switchgear. The new circuit breakers are identical in form, fit, and function to the circuit breakers originally supplied and will continue to trip per the original design. The new circuit breakers will be operated within the requirements of existing Technical Specifications. The activity does not reduce the margin of safety as defined in the basis for any Technical Specification.

SUBJECT: DCP: 93-V2N0062, revision 0, sequence 2

DESCRIPTION: This design change provides cable bus with the isolation switches to connect the standby auxiliary transformer (SAT) output to the existing cable bus between the reserve auxiliary transformers (RATs) and the Class 1E switchgear. The SAT is to be used to load a Class 1E portion and a selected non-Class 1E portion of a reserve auxiliary transformer during either a unit outage or during power operation. Also, the design change provides a route for the circuits between control room panel QEAB and the Class 1E switchgear that were added in sequence one of this DCP.

SAFETY EVALUATION: Electrical separation is maintained through the Class 1E circuit breakers on each bus which serve as RG 1.75 separation devices. The connection of the SAT to the Class 1E buses does not affect the fire event safe shutdown circuit analysis. The fault contribution of the SAT is enveloped by the emergency diesel generator's fault current capacity which is used in the calculation. In the event of an accident the new power supply will have adequate capacity and capability to power the affected Class 1E, 4.16-kV bus. No new penetrations are added as a result of the implementation of this DCP. All breached penetration seals were resealed per plant procedure after cable routing was completed. Addition of the SAT does not affect breaker or protective relay coordination on the Class 1E bus. The protection scheme will continue to function as designed. Because each bus is connected to the offsite source by an incoming circuit breaker, no single failure can be postulated which would result in a scenario where power to both buses was lost and could not be restored. The activity does not reduce the margin of safety as defined in the basis of any Technical Specification.

SUBJECT: DCP: 93-VAN0067, revision 0, sequence 1

DESCRIPTION: This design change package implements addition of Dionex Series 8200 Process Analyzers to the existing instrumentation of the Units 1 and 2 Turbine Plant Sampling Systems (TPPSs). The Dionex process analyzers allow a more accurate measurement of low level contaminants in the turbine plant water inventory.

SAFETY EVALUATION: The installation of the Dionex Series 8200 Process Analyzers does not have an adverse impact on the ability of the TPSS to perform its required functions. All changes meet the requirements of design criteria. Since no new radiological release path is being created by this modification, the radiological release is unaltered and remains in compliance with 10 CFR 100. Failure of the TPSS does not compromise other safety related systems and prevent a safe shutdown. As a result, there are no types of failure modes of equipment important to safety previously evaluated in the FSAR affected by the design change. The design change does not modify the original operating characteristics of any Technical Specification required systems, and the changes meet the requirements of plant design criteria.

SUBJECT: DCP: 93-VAN0068, revision 0, sequence 1

DESCRIPTION: The design change removes certain heat trace panels, and relocates the cross braces on pipe braces on pipe racks located on level B of the auxiliary building to allow for transportation of the spent RCS filter cartridges following a filter replacement on Unit 2.

SAFETY EVALUATION: Removal of the heat tracing from the affected piping has no affect on the operation of the systems with which the piping is associated. Following the modification, the pipe racks continue to meet their original design requirements including seismic qualification. No systems required to mitigate an accident are affected by the design change. The margin of safety as defined in the Technical Specifications is not reduced because the safety of the plant is not affected by the design change.

SUBJECT: DCP: 93-V2N0070, revision 0, sequence 1

DESCRIPTION: The design change eliminates the spray additive portion of the containment spray system and adds a new passive pH control system. The passive system is composed of trisodium phosphate (TSP) stored in baskets located in the post-LOCA flooded sump region of the containment building.

SAFETY EVALUATION: The design change functions in response to, and not as precursors to, an accident. All applicable design criteria standards are met by the design change. The containment spray

system, the ECCS or any of the accidents or transients that may have radiological consequences are not adversely affected by the change. The loads on the baskets were reviewed and were found to be acceptable. The baskets are designed to meet the requirements for seismic category 1. The change has no adverse impact on the possibility of equipment important to safety. The change does not exceed any acceptance limits nor does it reduce the margin of safety identified in the basis for any Technical Specifications.

SUBJECT: DCP: 93-V2N0072, revision 0, sequence 1

DESCRIPTION: The design change relocates relay UL in switchgear 2AB15 to allow sufficient room for adding the new relay. The design change installs for each train one Agastat time delay relay to be mounted in the rear compartment of the switchgear, adds internal wiring for the relay, re-terminates the CVI signal cable in the switchgear cubicle and relocates a certain relay.

SAFETY EVALUATION: The addition of the interposing time delay relays eliminates a relay race which affects the proper operation of the system during sequencer initiated operations. The failure modes and effects for the system remain unaffected by the change. The 5 second delay of the fan start will not cause an increase in radioactivity released to the atmosphere, nor will the concentration of airborne radioactive material in the auxiliary building be increased due to the short time delay. The margin of safety is not reduced by the design change.

SUBJECT: DCP: 93-V1N0078, revision 0, sequence 1

DESCRIPTION: This design change implements the addition of resistance temperature detectors (RTDs), 1TE27798-1TE27813, to the Pressurizer (1-1201-V6-002) shell, lower head, spray nozzle, and surge line to monitor the thermal gradient of the pressurizer.

SAFETY EVALUATION: This DCP has no adverse effect on the system, structure, or components. There is no change in the acceptable radiation limits for the plant as currently licensed. This DCP does not adversely affect the ability of the reactor coolant system, the pressurizer, or its components to perform its safety related function. The change does not result in the initiation of any new accidents. There is no impact on the credibility of any previously evaluated accident. The design change does not exceed any acceptance limits nor does it reduce the margin of safety identified in the basis for any Technical Specification.

SUBJECT: DCP: 93-V1N0079, revision 1, sequence 1

DESCRIPTION: The design change installs view ports on the encapsulation vessels to support MOV testing, removes the monorail between the encapsulation vessels in the Auxiliary Building, and adds platforms to support the vessel heads after removal in the Fuel Handling Building.

SAFETY EVALUATION: The design of the lifting lugs, and platforms meet seismic requirements and are constructed from materials acceptable for the application. The monorail is secured so that during a seismic event it will not adversely affect any equipment important to safety. The view port has no adverse effect on the encapsulation vessels or any other system required to mitigate an accident. The heavy loads analysis is not affected by the addition of the new trolley, the removal of the existing monorail or the addition of the platform. This design change meets all design criteria and code requirements for the affected systems and no new failures are created as a result of the change. No equipment important to safety as required by the

Technical Specifications is impacted by the design change, therefore, the margin of safety as defined in the basis for any Technical Specification is not reduced.

SUBJECT: DCP: 93-V2N0080, revision 1, sequence 1

DESCRIPTION: The design change installs view ports on the encapsulation vessels to support MOV testing, removes the monorail between the encapsulation vessels in the Auxiliary Building, and adds platforms to support the vessel heads after removal in the Fuel Handling Building.

SAFETY EVALUATION: The design of the lifting lugs and platforms meet seismic requirements and are constructed from materials acceptable for the application. The monorail is secured so that during a seismic event it will not adversely affect any equipment important to safety. The view port has no adverse effect on the encapsulation vessels or any other system required to mitigate an accident. The heavy loads analysis is not affected by the addition of the new trolley, the removal of the existing monorail or the addition of the platform. This design change meets all design criteria and code requirements for the affected systems and no new failures are created as a result of the change. No equipment important to safety as required by the Technical Specifications is impacted by the design change, therefore, the margin of safety as defined in the basis for any Technical Specification is not reduced .

SUBJECT: DCP: 93-V1N0084, revision 1, sequence 1

DESCRIPTION: The design change replaces the C&D model LCY-37 cells for Unit 1 trains A and B with higher capacity C&D model LCY-39 cells to provide a minimum 10% design margin above the Station Blackout (SBO) and Loss of Offsite Power/Loss of Coolant Accident (LOOP/LOCA) load profiles.

SAFETY EVALUATION: The construction of the LCY-39 cell is similar to the existing LCY-37 cell. The failure modes and effects listed in FSAR table 8.3.2-5 remain valid for the new cells. The existing seismic Category 1 racks (including the anchorage) are adequate for supporting the additional weight of the batteries without any additional modifications. The cells provide the necessary current and voltage for all equipment required to operate during a SBO or LOOP/LOCA. The new cells will perform in the same manner as the existing cells, therefore, the activity does not reduce the margin of safety as defined in the basis for any Technical Specification.

SUBJECT: DCP: 94-V1N0006, revision 0, sequence 1

DESCRIPTION: This design change replaces pressurizer pressure transmitter, 1PT-457, with a Rosemount 1154 H series pressure transmitter, which has better accuracy, less drift and improved reliability as compared to the existing Veritrak/Tobar transmitter.

SAFETY EVALUATION: On the basis of a review of FSAR chapters 6 and 15, there is no increase in probability of occurrence of an accident. The transmitters have the same set point settings, and are seismically and environmentally qualified for the location in which they are used. The design change meets the applicable standards, and has no adverse effect on the system, structure, or components. The Rosemount transmitter has been seismically and environmentally qualified for this application. The change does not result in the initiation of any new accidents. Since the value of Z+S for the Rosemount transmitter is enveloped by Z+S value in the Tech. Spec., the trip set point information in Table 2.2-1 for the pressurizer pressure reactor trip remains unchanged. Moreover, since the Channel Statistical Accuracy (CSA) for the Rosemount transmitter is enveloped by the CSA for the existing Tobar transmitter, the value of TA also remains unchanged. Therefore, this change does not reduce the margin of safety identified in the basis for any Technical Specification.

SUBJECT: DCP: 94-V2N0008, revision 0, sequence 1

DESCRIPTION: The design change addresses replacement of the control system for the refueling machine with a reliable control console capable of semi-automatic operation via interface with an IBM compatible PC.

SAFETY EVALUATION: The design change retains all the safety interlocks and functions of the original control console. The new components are installed to the seismic 2 over 1 criteria. The design change has no adverse affect on the systems or any other safety-related systems used to mitigate or respond to an accident as stated in the FSAR. No new failure modes are introduced/created by the design change. The design change does not reduce the margin of safety as defined in the Technical Specifications.

SUBJECT: DCP: 94-V1N0010, revision 0, sequence 1

DESCRIPTION: The design change connects Individual Cell Equalizer (ICE) devices to the plant's batteries listed in the design package. ICE devices help ensure proper cell float voltages and a uniform cell voltage distribution across the battery banks with each cell floating very close to the optimum voltage.

SAFETY EVALUATION: The failure of an ICE device does not affect the operation of the batteries nor the battery chargers. The testing and surveillance requirements for the batteries are not changed. The ICE devices fail open and have no effect on the battery cells. Therefore, the battery cell will be effectively returned to its original configuration. A short in the ICE device will fail to an open state. The margin of safety as defined in the basis to Technical Specification 3/4.8.2 is not reduced with the addition of the ICE devices to the plant's batteries.

SUBJECT: DCP: 94-V2N0011, revision 0, sequence 1

DESCRIPTION: The design change connects Individual Cell Equalizer (ICE) devices to the plant's batteries listed in the design package. ICE devices help ensure proper cell float voltages and a uniform cell voltage distribution across the battery banks with each cell floating very close to the optimum voltage.

SAFETY EVALUATION: The failure of an ICE device does not affect the operation of the batteries nor the battery chargers. The testing and surveillance requirements for the batteries are not changed. The ICE devices fail open and have no effect on the battery cells. Therefore, the battery cell will be effectively returned to its original configuration. A short in the ICE device will fail to an open state. The margin of safety as defined in the basis to Technical Specification 3/4.8.2 is not reduced with the addition of the ICE devices to the plant's batteries.

SUBJECT: DCP: 94-VAN0020, revision 0, sequence 20

DESCRIPTION: The design change relocates the 2 electro-hydraulic control (EHC) pumps from the top of the hydraulic power units to the floor. The change places the suction line below the normal fluid level in the tank thereby providing a flooded suction and increasing the net positive suction head.

SAFETY EVALUATION: The change improves the reliability of the system so as to make the probability of an inadvertent pressure reduction negligibly small. The change has no affect on the operation of the EHC system nor it has any affect on other safety systems. No new interface points with

equipment important to safety are created by the change. The modification does not reduce the margin of safety as defined in the basis for any Technical Specification.

SUBJECT: DCP: 94-VAN0026, revision 0, sequence 20

DESCRIPTION: The design change implements several changes as detailed in the design package, to various components associated with the Turbine Driven Auxiliary Feedwater Pump (TDAFWP). These changes improve the operation and reliability of the turbine and provide for future monitoring of the turbine performance.

SAFETY EVALUATION: The piping and valves are safety related and seismically designed through the last isolation valve and piping to the tubing adapter. The piping to tubing adapter also serves as the safety related flow limiting device. The changes to the systems do not cause, or increase the probability of, an accident evaluated in the FSAR. The Turbine Driven Auxiliary Feedwater Pump performs as required during any accident. There are no new nuclear or radiation accidents created by this design change. The TDAFWP still performs its required Technical Specification functions. The steam line drains are designed to maintain the steam line pressure boundary while allowing the condensate to drain. Therefore, the design change does not reduce the margin of safety as defined in the basis for any Technical Specification.

SUBJECT: DCP: 95-V1N0005, revision 0, sequence 1

DESCRIPTION: The design change provides Class 1E fuses in the Class 1E main turbine stop valve limit switch electrical signals in the Control Building before they enter the Turbine Building. The fuse and fuse holders are suitable for use in Class 1E circuits.

SAFETY EVALUATION: The solid state protection system (SSPS) was susceptible to a single failure as a result of a turbine building instrumentation short-to-ground when the SSPS power supply was already alarmed and operating with a single ground in the turbine building. This design change provides a fuse coordination enhancement to avoid a potential single failure (such as a HELB in the turbine building) to result in a loss of SSPS function if a ground fault already existed in the SSPS power supply system. Failure of the fuses will now place the associated channel to trip, allowing SSPS to operate as described in the FSAR. The seismic qualification of the junction boxes is not adversely affected by the addition of the fuse holders. The design change adds assurance that turbine building faults cannot propagate into the SSPS. The bases for the reactor protection and emergency safety features actuation specifications continue to be satisfied. Therefore, the margin of safety as defined in the Technical Specifications is not reduced by the design change.

SUBJECT: DCP: 95-V2N0006, revision 0, sequence 1

DESCRIPTION: The design change provides Class 1E fuses in the Class 1E main turbine stop valve limit switch electrical signals in the Control Building before they enter the Turbine Building. The fuse and fuse holders are suitable for use in Class 1E circuits.

SAFETY EVALUATION: The solid state protection system (SSPS) was susceptible to a single failure as a result of a turbine building instrumentation short-to-ground when the SSPS power supply was already alarmed and operating with a single ground in the turbine building. This design change provides a fuse coordination enhancement to avoid a potential single failure (such as a HELB in the turbine building) to result in a loss of SSPS function if a ground fault already existed in the SSPS power supply system. Failure of the fuses places the associated channel in trip, allowing SSPS to operate as described in the FSAR. The seismic qualification of the junction boxes is not adversely affected by the addition of the fuse

holders. The design change adds assurance that turbine building faults cannot propagate into the SSPS. The bases for the reactor protection and emergency safety features actuation specificati . , continue to be satisfied. Therefore, the margin of safety as defined in the Technical Specifications is r . t reduced by the design change.

SUBJECT: MDC 91-VCM006, revision 0, sequence 1

DESCRIPTION: Control building room R-110 was remodeled to provide an additional area for ALARA briefings and to replace an existing gurney shower with a better shower facility for personnel decontamination.

SAFETY EVALUATION: FSAR section 12.5.2.1 discusses the use of the gurney shower to decontaminate accident victims on stretchers. It has been determined that victims on stretchers would most likely be transported to a medical facility for treatment and later decontaminated. This change also required a revision to FSAR figure 1.2.2-6 which depicts the gurney shower. This equipment is not addressed in the Technical Specifications nor does it impact any other system's function as required by Technical Specifications.

SUBJECT: MDC 91-V1M027, revision 0, sequence 1

DESCRIPTION: The wire mesh door to auxiliary building room RD-58 (waste monitor tank and pumps) contacted the reach rod handwheel for valve A-1210-U4-048 (RHT#001 drain to rad drain sump). This condition limited door travel to approximately 50% and created the possibility of an inadvertent valve actuation. The existing door was removed and relocated to the corridor entrance (room RD-60) for the adjacent pump rooms, RD-58 and RD-59. This provides one access control point for both rooms.

SAFETY EVALUATION: Cage doors D57 and D58 are not specifically addressed in the FSAR, but were originally installed to maintain access control into the high radiation areas. Deleting door D58 and relocating door D57 still provide a positive means of controlling access into high radiation areas and fully complies with the plant's radiation protection design criteria. As a result of this change, FSAR figures 9A-1, 12.3.1-1 (sheet 1 of 40) and 12.3.1-3 (sheet 1 of 35) require revision. System function was not altered by this change. Technical Specification 3/4.11 addresses radwaste. The change does not impact any requirement contained within the Technical Specifications.

SUBJECT: MDC 91-V1M074, revision 0, sequence 1

DESCRIPTION: FSAR chapter 9B section C.6.C(2) states that all interior valves in the fire water system are supervised either by being locked in the proper position or electrically supervised. The fire water supply header valves for the unit 2 containment building are locked open per design. The unit 1 counterpart valves are also locked open. However, design documents indicated position control was provided via electrical supervision. The change implemented by this MDC is a drawing change only. The existing locked open status for these valves meets the design intent as described in the FSAR.

SAFETY EVALUATION: FSAR chapter 9B section C.6.C describes the requirements for interior fire water supply valves. The requirement states that these valves must either be locked open or electrically supervised. The change implemented by this MDC was necessary to show the proper method of control (locked open versus electrically supervised) being utilized for the unit 1 containment building supply valves. This change conforms to the criteria as stated in the FSAR. FSAR figure 9.5.1-1 (sheet 10 of 13) requires revision as a result of the change. Fire suppression position control devices are not a part of the Technical Specification.

SUBJECT: MDC 92-VAM056, revision 0, sequence 1

DESCRIPTION: The diaphragm valve which isolates an RMWST header line from the boric acid storage tank was replaced with a globe valve designed to be operated more frequently.

SAFETY EVALUATION: No text revision to the FSAR was required as the detail given in the FSAR does not include a description of the suction piping associated with this sampling skid. FSAR section 9.3 was reviewed for impact. A revision was required to figure 9.3.4-1 which will be processed through routine FSAR reviews.

SUBJECT: MDC 92-VAM079, revision 0, sequence 1

DESCRIPTION: The existing water treatment plant silica analyzer (HACH company model 651-b) had not proved to be very reliable and was becoming increasingly more difficult to obtain replacement parts. Based on this information, the analyzers were replaced with a Scientific Instruments model CFA series 1000 silica monitor. The replacement model provides increased reliability and performance. The change also alleviated the parts issue associated with the original analyzers.

SAFETY EVALUATION: FSAR section 9.2.3 and 10.3.5 discusses the demineralized water makeup system and water chemistry requirements, respectively. The MDC changed out the type of analyzer only and did not alter the function of the analyzer. This change did not impact any discussion contained in either of the FSAR sections listed above but did require revision to FSAR figure 9.2.3-1 (sheet 4 of 4) to illustrate the difference in configuration between the two components. The change did not affect system operation nor did it affect the way in which the system is operated. The demineralized water makeup system is not addressed in the Technical Specifications.

SUBJECT: MDC 92-V1M119, revision 0, sequence 1

DESCRIPTION: Expanded stainless steel screens were installed over the internal (floor) basin drains in the main and auxiliary containment coolers to prevent trash, debris and tools from entering the drain system piping and subsequently blocking the flow of condensate to LT17090 and LT17904. Additionally, stainless steel screens were installed at open drain line funnels/cups to also prevent trash from entering the containment drain system.

SAFETY EVALUATION: The containment coolers, preaccess filter units and the containment drain systems are discussed in FSAR sections 6.2.2, containment heat removal systems, and 9.4.6, containment building ventilation systems. The installation of the drain screens does not affect system operation or operability as discussed in these sections. The systems continue to function as designed. Figures 9.4.6-1, 9.4.6-2 (sheet 3 of 3) and 6.2.2-1 were updated to reflect the addition of the screens. The modification does not affect any safety limits, limiting safety system settings, limiting conditions for operation or surveillance requirements associated with these systems.

SUBJECT: MDC 92-VAM140, revision 0, sequence 1

DESCRIPTION: A 40'x80' prefabricated metal building and support slab was erected at a location just north of the existing maintenance building. The building is designated as a maintenance storage facility and is being used for storage of bulk materials and temporary equipment. The building is a non safety related structure and contains no permanently installed plant equipment.

SAFETY EVALUATION: FSAR figures 1.2.2-1, sheet 1 of 3 (site plan), 1.2.2-1, sheet 2 of 3 (location and orientation of buildings) and 1.2.2-2 (plot plan) required revision to illustrate the addition of the new maintenance storage facility. The addition of the building and its intended function does not impact operation of the facility or any of its associated systems. The building has been designed and located so as not to impact any component or system required for safe shutdown of the plant or any fire protection system features.

SUBJECT: MDC 92-V2M156, revision 0, sequence 1

DESCRIPTION: A new filter was installed to prevent the accumulation of particulate on the needle valve seats associated with the seal injection lines.

SAFETY EVALUATION: This was a change to the plant as depicted on FSAR figure 11.4.2-3. While the unit 2 P & I diagram 2X4DB148 is not an FSAR figure, the unit 1 P & ID 1X4DB148 is located as figure 11.4.2-3 in the FSAR. This change to the unit 2 P & ID was not considered to be of such significance that 2X4DB148 was required to be added to the FSAR as a new figure. Because the design of the auxiliary gas system is not discussed to a level of detail that would point out the existence of an additional filter on unit 2 that does not exist on unit 1, there was no revision necessary to the text of the FSAR. No change to the FSAR, including sections 3.2.2, 9.1.3, 9.1.5, 9.3.4, 9.3.5, 9.5.1,11.2.1, 11.4.2, 12.2.1, 12.3.1, 14.2.8, was required.

SUBJECT: MDC 93-V1M017, revision 0, sequence 1

DESCRIPTION: The steam generator feed pump turbine lube oil reservoir vapor extractor was maintaining a vacuum in the reservoir in excess of that recommended by General Electric. Reservoir vacuum was controlled by adjusting the vapor extractor discharge valve which did not allow operation in an acceptable range. This resulted in a loss of flow from the reservoirs to the lube oil conditioning unit. To provide a means of controlling vacuum in the reservoir, a bypass line and valve were installed around the vapor extractor. This allows a controlled recirculation of the vapor extractor discharge, thereby controlling vacuum levels at a desirable value.

SAFETY EVALUATION: FSAR section 10.4.7, condensate and feedwater system, discusses the operation of the steam generator feed pump turbine lube oil systems. The addition of the bypass line and valve provides a means to control vacuum to an acceptable level to ensure the proper operation of the lube oil systems as defined in the FSAR section. The function of the lube oil system was not impacted. Operating procedures have been revised to reflect this new method of controlling vacuum. The change does not impact any function of the feedwater system as defined in Technical Specification 3/4.7, plant systems.

SUBJECT: MDC 93-VAM021, revision 0, sequence 1

DESCRIPTION: Several louvers associated with the diesel generator building HVAC system have been susceptible to a failure mechanism involving the method of connection between the damper and operating shaft. The existing loose fitting spring-pin has become dislodged on occasion causing the damper to fail. To prevent recurrence of similar events, the current damper mounting scheme has been augmented by welding the louver crank arm to the shaft. Additionally, while maintaining the attributes of the original design, temperature switches associated with the control of the fans and dampers were replaced with a temperature switch having a larger deadband in an effort to reduce cycling of the ventilation dampers and actuator and damper wear. The replacement temperature switches are not equipped with the same indication as the original switches, but they provide the same function.

SAFETY EVALUATION: The diesel generator building ventilation system is discussed in FSAR section 10.4.7. The augmented mounting scheme does not affect the operational characteristics of the ventilation dampers and therefore does not impact any description presented in this section. The replacement temperature switches retain the same attributes as described in this section. Temperature control settings for the switches did not change. As stated earlier, the new switches do not provide for local indication. However, a requirement for such was not discussed in the FSAR section. The changes did not impact any Technical Specification regarding operability requirements of the diesel generators..

SUBJECT: MDC 93-VAM057, revision 0, sequence 1

DESCRIPTION: The existing 1500 gallon liquid nitrogen storage tank was replaced with a 6000 gallon tank. The capacity of the nitrogen storage system was insufficient and required maintenance of a rental tube trailer as a backup supply. The new tank contains suitable pressure controls to adapt to the present system configuration. The hydrogen storage facility cryogenic system was also abandoned per this MDC, and future hydrogen needs will be met via a portable tube trailer.

SAFETY EVALUATION: FSAR section 2.2.3, 3.2.2, and 9.3.5 discusses the auxiliary gas systems which includes the nitrogen and hydrogen systems. These sections will be revised to reflect the changes. FSAR figures 6.4.2-2 and 9.3.5-1 sheet 2 also required revision. Because the nitrogen and hydrogen systems have no safety design bases, this change does not affect the operation or increase the probability of an accident.

SUBJECT: MDC 93-V2M070, revision 0, sequence 1

DESCRIPTION: Valves 2-1215-U4-283, which isolates drainage water from the reactor makeup water storage tank (RMWST) trench to the storm drain system, and 2-1215-U4-282, which isolates drainage water from the RMWST trench to the spent fuel pool purification, are located in the RMWST moat. Operation of these valves required the removal of trench grating and entry into this area to manipulate the valves. To remedy this situation, reach rods were installed on each valve to allow manipulation from outside of the pit area.

SAFETY EVALUATION: FSAR section 9.3.3 describes the function and operation of the reactor makeup water storage system. Addition of reach rods to these valves to allow for remote operation did not alter the design function of these valves nor did it affect the manner in which the valves are manipulated. FSAR figure 9.3.3-3 (sheet 10 of 11) required updating to reflect the addition of the reach rods. The system is not the subject of any Technical Specification.

SUBJECT: MDC 93-V1M071, revision 0, sequence 1

DESCRIPTION: A manually operated isolation valve was installed in the discharge line of each of the main turbine electro-hydraulic control (EHC) fluid high pressure pumps. The valves were normally open and did not affect the operation of the system. The ball valves were added to eliminate the use of an existing check valve in the discharge line as an isolation boundary during pump maintenance while the unit is at power.

SAFETY EVALUATION: The main turbine and generator are described in FSAR section 10.2. A discussion of the EHC system is contained within this description. The addition of the valves did not impact system operations as described in this discussion. However, FSAR figure 10.2.2-4 required updating to reflect the addition of the valves. The EHC system is not the topic of any Technical Specification.

SUBJECT: MDC 93-VAM072, revision 0, sequence 1

DESCRIPTION: The original design for the backflushable filter systems specified a programmable logic controller (PLC) so that the systems could be operated in automatic mode. The nitrogen accumulator tank had high and low pressure alarm switches interlocked with a demineralized water isolation valve and a nitrogen supply inlet valve so that the demin. water header would not become contaminated when a backflush occurred. This automatic design function was deleted/abandoned and operated in the manual mode. With the system in manual, the accumulator tank was not filled, which results in a low nitrogen pressure annunciator. Additionally, the demin. header is kept isolated to prevent contamination under current operating procedures. The high and low pressure alarms are no longer required and have been abandoned.

SAFETY EVALUATION: The solid waste management system and components are described in FSAR section 11.4. The abandonment of the high and low pressure annunciators does not affect the operation of the backflushable filter system as discussed in this description. The backflushable filter system continues to operate as designed. The change did require an update to FSAR figure 11.4.2-3. The change does not affect any requirements set forth in the Technical Specifications or the environmental protection plan.

SUBJECT: MDC 93-V2M077, revision 0, sequence 1

DESCRIPTION: Flow indicating switches associated with the circulating water pump bearing lubrication and motor cooling from the utility water system have required frequent cleaning and calibration. In addition, setpoints for the alternate supply from turbine plant cooling water (TPCW) and utility water were set close enough that the alternate supply at times became the source. The flow indicating switches and interlocks were removed from the system supply and the TPCW setpoint lowered for a greater span between setpoints.

SAFETY EVALUATION: FSAR section 10.4.5 addresses the function and operation of the circulating water system. The discussion does not contain any reference to the flow devices or the pressure regulating valves. The change did not require a revision to FSAR figure 10.4.5-1 which will be part of the 18-month update. The circulating water system is not the topic of any Technical Specification. System operation was not impacted by the change.

SUBJECT: MDC 93-V1M084, revision 0, sequence 1

DESCRIPTION: Several modifications were made to the electro-hydraulic control (EHC) hydraulic power unit to improve the operation and maintainability of the equipment. Differential pressure indicators were added to the high pressure hydraulic pump discharge filters to allow operators to monitor the condition of the filters. The temperature at which the heaters operate to maintain EHC fluid reservoir temperature was increased as a result of a recommendation by the fluid supplier. Additionally, a flow indicator and drain valve were added to the Fullers earth filter to enhance filter operation.

SAFETY EVALUATION: FSAR section 10.2 describes the function and operation of the turbine generator including the EHC system. The addition of the drain valve and instruments does not impact the discussion contained within this section. The system continues to be operated as before. The additions required an update to FSAR figure 10.2.2-4. The addition of the instruments and drain valve does not alter the design function of the system nor does it affect the manner in which the system is operated. The EHC system is not the subject of any Technical Specification.

SUBJECT: MDC 93-V2M085, revision 0, sequence 1

DESCRIPTION: Several modifications were made to the electro-hydraulic control (EHC) hydraulic power unit to improve the operation and maintainability of the equipment. Differential pressure indicators were added to the high pressure hydraulic pump discharge filters to allow operators to monitor the condition of the filters. The temperature at which the heaters operate to maintain EHC fluid reservoir temperature was increased as a result of a recommendation by the fluid supplier. Additionally, a flow indicator and drain valve were added to the Fullers earth filter to enhance filter operation.

SAFETY EVALUATION: FSAR section 10.2 describes the function and operation of the turbine generator including the EHC system. The addition of the drain valve and instruments does not impact the discussion contained within this section. The system continues to be operated as before. The additions required an update to FSAR figure 10.2.2-4. The addition of the instruments and drain valve does not alter the

design function of the system nor does it affect the manner in which the system is operated. The EHC system is not the subject of any Technical Specification.

SUBJECT: MDC 93-V2M091, revision 0, sequence 1

DESCRIPTION: This MDC provides TPCW cooling water taps, isolation valves and caps located inside the steam generator blowdown (SGBD) trim heat exchanger room that will eventually provide cooling water for monitors sampling SGBD. A pipe extension and cap has also been added to provide sampling upstream of the condensate demineralizers.

SAFETY EVALUATION: The TPCW system as described in section 9.2.11 of the FSAR and figure 9.2.11-1 has been changed in order to reflect the addition of these tap connections. The addition of a pipe extension and cap upstream of the condensate demineralizers has been reflected in FSAR sections 10.4.6 and figure 10.4.6.6-1. This change did not involve a change to Technical Specifications based on a review of section 3/4.7 (plant systems) nor to the environmental protection plan.

SUBJECT: MDC 93-VAM095, revision 0, sequence 1

DESCRIPTION: The existing demineralizer beds were unable to reduce sodium concentrations in the make-up water to newly established levels. In order to attain the desired levels, it was necessary to bring a vendor supplied demin. vessel with the capability of reducing sodium concentrations to the lower levels. The change implemented by this modification provides the necessary connections including valves to allow the vendor supplied skid to be placed in the existing demineralizer system to assist in reducing sodium concentrations.

SAFETY EVALUATION: The demineralized water make-up system is discussed in FSAR section 9.2.3. The addition of connections to allow a vendor supplied skid to be installed for sodium removal does not affect function or operation of the system as described in this FSAR section. FSAR figure 9.2.3-1 was updated to reflect the addition of these connections. The plant demineralized water make-up system is not addressed by Technical Specifications.

SUBJECT: MDC 93-VAM096, revision 0, sequence 1

DESCRIPTION: The location at which the pressure compensator on the main turbine electro-hydraulic control (EHC) system high pressure hydraulic pumps sense the system pressure was changed. The original location was at the pump discharge prior to the discharge filters. This location was not acceptable as an increase in filter differential pressure would result in a decrease in overall system pressure. The sensing point for pump pressure control was relocated downstream of the discharge filters, thereby allowing pumps to maintain the system pressure constant over time compensating for the increase in filter differential pressure.

SAFETY EVALUATION: The turbine generator including the EHC system is described in FSAR sections 10.2. The FSAR does not provide specific details for the location of the pressure compensator. The system continues to be operated as before. System pressure is maintained as discussed in this section. FSAR figure 10.2.2-4 required updating to properly reflect the new location of the pressure transmitter. The main turbine EHC system is not the subject of any Technical Specification.

SUBJECT: MDC 93-V2M102, revision 0, sequence 1

DESCRIPTION: Several features [rod cluster control assembly (RCCA) and thimble plug gripper, mast rotation, and stop plate limit switches} associated with the sigma refueling machine were not being used to

monitor position changes of the respective components. As all insert shuffling is performed in the spent fuel pool, the RCCA/thimble plug gripper and the stop plate are not required to function as they would during an incore shuffle. Additionally, the mast rotation limit switch was not used for mast orientation. The functions associated with these switches have been disabled.

SAFETY EVALUATION: Design, function and operation of the equipment used to perform refueling operations are discussed in FSAR section 9.1.4. The ability of the refueling machine to manipulate RCCAs/TPs is specifically addressed. Since current plant refueling operations do not involve shuffling inserts with the refueling machine, the ability to manipulate RCCAs/TPs with the sigma machine has been disabled. These components were disabled in such a manner that they may be reconnected in the future if necessary. Accordingly, the FSAR section required updating to reflect the most current configuration of these components. The changes have also been evaluated against refueling accidents described in chapter 15 and were determined to have no impact on the existing evaluations.

SUBJECT: MDC 93-V1M129, revision 0, sequence 1

DESCRIPTION: The originally installed Leeds and Northrop on-line pH monitors used in the balance of plant sampling system were obsolete. Dealer service was inadequate and replacement parts were unavailable. Additionally, chemistry sampling requirements changed such that not all of the points that were contained in the original sampling program required continued monitoring. Monitoring points associated with condensate pump discharge, feedwater to steam generators and steam generator blowdown were maintained using a more reliable on-line pH probe, while points associated with circulating water, demin. total effluent and main steam from the steam generators were eliminated.

SAFETY EVALUATION: The turbine plant sampling system is discussed in FSAR sections 9.3.2. The points that are being monitored by the sampling system are listed in table 9.3.2-3. The table required updating to reflect the elimination of these points. The remaining points that are being monitored have been determined to provide sufficient data to ensure that requirements set forth in FSAR section 10.3.5, water chemistry, are being maintained. The replacement on-line pH monitors function in the same manner as those originally installed and therefore do not impact the description contained within these sections nor is there an impact on the function provided by this equipment.

SUBJECT: MDC 93-VAM130, revision 0, sequence 1

DESCRIPTION: The charging pumps located in the CVCS charging pump rooms have a continuous leakoff source which causes the locked closed drain lines associated with the equipment drains to overflow onto the floor. This results in an area contamination problem. In order to rectify this condition, it was determined that the status of the locked closed drain valves be evaluated to permit partial opening of the valves to establish a flowpath for this continuous leakoff to the waste hold up tank. As a result of this evaluation, it was determined that the valves could be opened approximately two turns and that this degree of opening would not adversely impact the negative pressure boundary.

SAFETY EVALUATION: FSAR section 9.3.3 discusses design, function and operation of the equipment and floor drainage systems. This section sets forth the requirements associated with these systems with relation to the maintainability of negative pressure boundaries and the auxiliary building flood retaining rooms, alarms and drains (FRRAD) system. It was determined that partial opening of these valves would not impact the negative pressure boundary. The FSAR section indicates that rooms housing ESF equipment which are subject to flooding via backflow through the drainage piping should be protected by a normally closed manual valve. The evaluation determined that the effect on the flooding analysis for this room would be insignificant based on the characteristics of the restricted flow provided by the partially open valves. This change required updating of this FSAR section to reflect the position of these valves. The negative pressure boundary required by Ttechnical Specification section 3/4.7.7 has been preserved.

SUBJECT: MDC 93-VAM134, revision 0, sequence 1

DESCRIPTION: The existing design of the water treatment plant includes isolation of effluent flow from the demin. plant to the demin. storage tank (DST) on high conductivity only. Only routine sampling was available to detect if effluent sodium concentrations were above administrative limits. With increased focus on sodium limits, it was determined that an on-line sodium analyzer be installed to provide continuous monitoring of demin. plant effluent sodium concentrations and an isolation function when levels approach administrative limits.

SAFETY EVALUATION: FSAR section 9.2.3 and 10.3.5 discusses the demineralized water makeup system and water chemistry requirements, respectively. The addition of an on-line effluent sodium concentration monitor with isolation functions does not impact the discussions contained within these sections. This change enhances chemistry control. The addition of the analyzer required an update to figure 9.2.3-1 to illustrate the added component. The demin. water treatment system is not the subject of any Technical Specification.

SUBJECT: MDC 93-VAM136, revision 0, sequence 1

DESCRIPTION: The no charge alarm on the central alarm station (CAS), secondary alarm station (SAS) and the technical support center (TSC) battery chargers should only actuate on a loss of charger output. But due to the light loads on these chargers, this alarm stayed illuminated, thereby masking all other alarms. Deletion of this alarm allows all other inputs to the annunciators to actuate and be addressed by the operators. Loss of the charger output for these chargers resulted in an undervoltage condition which will be annunciated by the undervoltage relays. The no charge alarm was defeated by adjusting it to zero.

SAFETY EVALUATION: FSAR section 8.3.2 (dc power systems) was reviewed for impact. Section 8.3.2.2 describes the battery charger loss of output alarm commonly referred to as the no charge alarm. Deletion of the no charge alarm on the CAS, SAS and TSC battery chargers eliminated the nuisance no charge alarms that are inherent with the current system loads. A loss of output of one of the chargers would be detected by the undervoltage relays which are set to actuate when the system voltage drops below 125 Vdc. Operator action is required to place the alternate battery charger into service. Operations procedures have been revised to reflect these changes. Additionally, the changes required an update of this FSAR section.

SUBJECT: MDC 93-V1M137, revision 0, sequence 1

DESCRIPTION: Rework of the mechanical seals associated with the crud tank pumps required removing the pump casing drain lines. The lines had to be cut and rewelded each time this evolution was performed. In order to better facilitate this repetitive evolution, flanged connections were added to the drain lines.

SAFETY EVALUATION: The solid waste management system is discussed in FSAR section 11.4. The addition of flanged connections to pump casing drain lines does not impact the design function or operation as described in this section. The system continues to function as before. Figure 11.4.2-3 required an update to illustrate the new method of connection. The solid waste management is not the subject of any Technical Specification.

SUBJECT: MDC 93-V1M143, revision 0, sequence 1

DESCRIPTION: At certain flow rates in the nuclear service cooling tower make-up operations, the non-operating pump had a tendency to rotate backwards as a result of backflow through the non-operating pump mini-flow line. In order to prevent this occurrence, check valves were installed in the mini-flow lines associated with the NSCW make-up pumps.

SAFETY EVALUATION: The NSCW make-up pumps are described in FSAR section 9.2.4, which addresses the plant make-up well water system. The addition of the check valve in the make-up pump's mini-flow lines does not affect system operation as described in this section. System operation is not impacted as a result of this change. The addition of the check valve prevents future damage and excessive wear to the non-operating pump. The check valve has been illustrated on FSAR figure 9.2.4-1.

SUBJECT: MDC 93-V2M144, revision 0, sequence 1

DESCRIPTION: The originally installed Leeds and Northrop on-line pH monitors used in the balance of plant sampling system were obsolete. Dealer service was inadequate and replacement parts were unavailable. Additionally, chemistry sampling requirements changed such that not all of the points that were contained in the original sampling program required continued monitoring. Monitoring points associated with condensate pump discharge, feedwater to steam generators and steam generator blowdown were maintained using a more reliable on-line pH probe, while points associated with circulating water, demin. total effluent and main steam from the steam generators was eliminated.

SAFETY EVALUATION: The turbine plant sampling system is discussed in FSAR sections 9.3.2. The points that are being monitored by the sampling system are listed in table 9.3.2-3. The table required updating to reflect the elimination of these points. The remaining points that are being monitored have been determined to provide sufficient data to ensure that requirements set forth in FSAR section 10.3.5, water chemistry, are being maintained. The replacement on-line pH monitors function in the same manner as those originally installed and therefore does not impact the description contained within these sections, nor is there an impact on the function provided by this equipment.

SUBJECT: MDC 93-VAM145, revision 0, sequence 1

DESCRIPTION: The main control board (GMCB) monitor light box (MLB) system's primary function is to provide an on-off indication of ESF systems or auxiliary support systems status to the operator. The group alarm inputs into both the plant annunciator system to alert the operator of impending trouble of essential components and to the respective MLB group light display box for visual observation by the operator. The original plant design was for a "dark board concept" meaning that MLB windows and plant annunciator windows should not be illuminated or in alarm status during normal plant operations. Several exceptions to this concept have resulted in annunciators being illuminated during normal plant operations. This inhibits the annunciator from performing its function as it remains on at all times. To eliminate this nuisance annunciator, the inputs from various MLB group alarms were defeated. The inputs to the MLBs were not affected.

SAFETY EVALUATION: The emergency core cooling system's engineered safety features operating status indication for pumps and valves are primarily described in FSAR sections 6.3.5.5, 7.3.2.1.1.4 and 7.5.5. The deletion of the input into the various QMBC alarms associated with the MLB lights creates no safety impact since the operator still has the safety related MLB status monitoring system. The existing safety design features necessary to preserve the integrity of the ECCS system was not affected by this change. The change does not impact ECCS system or equipment operability requirements set forth in the Technical Specifications section 3/4.7.

SUBJECT: MDC 94-VAM073, revision 0, sequence 1

DESCRIPTION: The boric acid transfer pump suction pressure indicators have a stainless steel diaphragm on their inlet. This internal, relatively rigid, stainless steel diaphragm was not sufficiently sensitive to the low operating pressure found at this system location and subsequently did not allow proper pressure indication to be mechanically transmitted to the indicator's Bourdon tube for accurate indication. To rectify this condition, the diaphragm seal has been removed.

SAFETY EVALUATION: The chemical and volume control system is described in FSAR section 9.3.4 and depicted on figure 9.3.4-1 (sheet 7 of 7). The subject diaphragms are not addressed in this FSAR section. The change resulted in a more reliable and accurate means of monitoring the suction pressure to these pumps which will enhance all operations involving the operation of these pumps. The system components continue to operate as previously designed. Although there are several sections of the Technical Specifications that address boric acid flow paths and reactivity controls, the change implemented on the suction pressure indicators defined by this evaluation did not impact any of these requirements.

SUBJECT: MDC 94-VAM077, revision 0, sequence 1

DESCRIPTION: The vacuum degasifier transfer pump discharge relief valve originally relieved back into the degasifier bottoms (under the liquid space of the degasifier column). Any leakage with the valve was drawn into this section of the degasifier resulting in out-of-spec dissolved oxygen levels. To alleviate this condition, the discharge relief valve was rerouted to an existing floor drain.

SAFETY EVALUATION: The plant demin. water system is described in FSAR section 9.2.3 and depicted on figure 9.2.3-1. The design function of the safety valve is to prevent overpressure of the discharge piping in the event the discharge path is lost during pump operation. The location at which the relief valve discharges does not affect operation of the system or affect the ability of the relief valve to perform its intended function.

SUBJECT: MDC 94-V1M079, revision 0, sequence 1

DESCRIPTION: To reduce the probability of experiencing an unnecessary trip of the main turbine as a result of a momentary reduction of EHC hydraulic pressure, the main turbine trip on low hydraulic fluid pressure has been delayed until the condition has existed continuously for three seconds. This change was desired because the fluid pressure can, on occasion, and particularly during control valve stroke testing, approach the trip setpoint.

SAFETY EVALUATION: The main turbine trip on low hydraulic pressure is described in FSAR section 10.2, steam and power conversion. The addition of the three second time delay to the trip circuitry does not require any modification to the FSAR text. However, figure 10.2.2-3, which depicts the logic diagram for the main turbine trip circuitry, required updating. The main turbine trip and overspeed functions as stated in the Technical Specifications are not affected by this change.

SUBJECT: MDC 94-V2M080, revision 0, sequence 1

DESCRIPTION: To reduce the probability of experiencing an unnecessary trip of the main turbine as a result of a momentary reduction of EHC hydraulic pressure, the main turbine trip on low hydraulic fluid pressure was being delayed until the condition had existed continuously for three seconds. This change was desired because the fluid pressure can, on occasion and particularly during control valve stroke testing, approach the trip setpoint.

SAFETY EVALUATION: The main turbine trip on low hydraulic pressure is described in FSAR section 10.2, steam and power conversion. The addition of the three second time delay to the trip circuitry does not require any modification to the FSAR text. However, figure 10.2.2-3, which depicts the logic diagram for the main turbine trip circuitry, required updating. The main turbine trip and overspeed functions as stated in the Technical Specifications is not affected by this change.

SUBJECT: MDC 94-V1M088, revision 0, sequence 1

DESCRIPTION: The automatic actuation of the TSC halon fire suppression system was deleted per this MDC. This change allows the smoke detection feature to still function in the TSC, but prevents an automatic actuation as a result of smoke detection. Only manual actuation of this system remains functional.

SAFETY EVALUATION: This change will require a revision to FSAR section 9.5.1.2.2.11 to describe the manual only actuation of the TSC halon system. The TSC halon suppression system is not required by the FSAR.

SUBJECT: MDC 94-VAM093, revision 0, sequence 1

DESCRIPTION: The existing hydrazine analyzers and cells located in the secondary chemistry labs have been replaced by the more reliable polymetron series 50 hydrazine analyzers and cells.

SAFETY EVALUATION: There will be no change to the plant as described in the FSAR. FSAR figure 9.3.2-3 (drawing 1X4DB171-3) was automatically updated due to a drawing change associated with this MDC. This change only replaces the existing hydrazine monitors and cells used in the unit 1 and unit 2 turbine plant water sampling analyzer and recorder panels. There is no change to the operation or functionality of the new hydrazine cells and analyzers. FSAR sections 1.2.10.7, 3.2.2-1, 9.3.2, 10.3.5, 10.4.7.2.1 and 10.4.10 were reviewed for impact.

SUBJECT: MDC 94-VAM101, revision 0, sequence 1

DESCRIPTION: The discharge associated with the demineralized water treatment facility was routed through a vendor (Ionics) skid in order to increase sodium removal efficiency. A vendor skid "tap" was provided as an inlet to the Ionics skid at an unused flow indicator, AFQI 7..12, and the return from the Ionics skid was at a flanged connection associated with the effluent resin trap, A-1409-D4-001-Z07.

SAFETY EVALUATION: FSAR figure 9.2.3-1 (sh. 4 of 4) is the P & ID associated with the plant demin. water system and includes the depiction of this discharge line and its associated piping. This P & ID was revised to show the modification and, as such, the FSAR figure requires revision. Additionally, the text of section 9.2.3.2.2.1 will be changed to reflect this modification. No existing design, material or construction standards applicable to the demin. water system were compromised by this change.

SUBJECT: MDC 94-V1M111, revision 0, sequence 1

DESCRIPTION: To improve the reliability, operability and maintainability of the main turbine EHC system, several modifications were made to the hydraulic power unit. The changes were as follows: 1) addition of a second filter in parallel with each of the existing pump discharge filters complete with isolation valves to allow filter replacement during pump operation, 2) replacement of the existing 1/2 micron fines filter

downstream of the Fullers earth filter with a one micron absolute filter, and 3) modification of the high filter dP indicating lights to be illuminated when the filter is clean which will permit detection of a burned out light bulb in addition to high DP.

SAFETY EVALUATION: The main turbine EHC system is generally discussed in FSAR section 10.2. The level of detail provided in this discussion is such that the changes implemented by this modification did not necessitate a text revision. Figure 10.2.2-4 required revision to depict the added equipment. Operation of the EHC system as described in the FSAR section was not impacted by these changes. Operational procedures required revision to reflect the additional equipment. However, system operation is as before. The modification does not impact any requirements stated in Technical Specifications concerning the main turbine trip or overspeed functions.

SUBJECT: MDC 94-VAM116, revision 0, sequence 1

DESCRIPTION: The auxiliary building non-radioactive drain system included floor drains that were either plugged or equipped with normally closed valves in the drain lines to maintain the integrity of the auxiliary building negative pressure boundary. In order to provide miscellaneous drainage under normal plant operations, several rooms that are subject to collecting leakage from equipment sources have been provided with a one-inch diameter hole in the drain plug to allow restricted drainage without a loss of integrity of the negative pressure boundary.

SAFETY EVALUATION: FSAR section 9.3.3 discusses design, function and operation of the equipment and floor drainage systems. The section sets forth the requirements associated with negative pressure boundaries and flood retaining rooms. The addition of one inch holes in the drain plugs for auxiliary building rooms r-d01/r-d74 (spray additive tank room) and r-d06/r-d75 [component cooling water (CCW) drain tank and pump room] does not adversely affect the integrity of the negative pressure boundary. The auxiliary building rooms in the negative pressure boundary are not balanced to a specific negative pressure with the exception of the piping penetration area filtration & exhaust system (PPAFES) 1561 filter unit rooms which are maintained at a negative pressure of 1/4" wg. The change did not increase the air leakage through the negative pressure boundary or result in a bypass of the PPAFES. Additionally, the subject rooms do not house any ECCS recirculation components that could leak into the drains and bypass the area served by the PPAFES. The postulated flood will not be increased as a result of the change. FSAR figure 9.3.3-3, sheet 2 of 11 required updating to reflect the addition of the holes in the drain plugs. The negative pressure boundary required by Technical Specification section 3/4.7.7 was preserved.

SUBJECT: MDC 94-VAM120, revision 0, sequence 1

DESCRIPTION: The response of the waste gas recombiner to a high temperature condition in the catalyst bed was to limit O_2 addition, but allow waste gas flow. This change terminated waste gas flow and O_2 addition on a high temperature condition.

SAFETY EVALUATION: FSAR section 11.3.2.2.2 lists the automatic responses of the waste gas recombiner. Item 1 will change to reflect the new response of the waste gas recombiner to a catalyst bed high temperature condition. This change further limits the quantity of explosive gases in the system during abnormal operations.

SUBJECT: MDC 94-V1M122, revision 0, sequence 1

DESCRIPTION: Oxygen ingress in PWR generators can increase the electrochemical potential (ECP) of tubing materials thereby increasing the tendency of intergranular attack/stress corrosion cracking (IGA/SCC) in acidic or basic crevices. It is therefore desirable to directly monitor tubing ECP in crevice regions where corrosion occurs to assure ECP remains very low. Since it was not feasible to install ECP

electrodes in steam generators, it was determined that feedwater responded similarly to changes in feedwater oxidant and redundant concentrations. With this in mind, appropriate connection points for a single supply and return of feedwater were provided to support the future ECP monitoring system.

SAFETY EVALUATION: The feedwater and condensate system is described in FSAR section 10.4.7 and depicted on figure 10.4.1. The addition of connections to the feedwater system to support installation of an ECP monitoring system does not impact the discussion contained within the description but required updating of this figure. The change does not affect the method by which the condensate and feedwater system is operated. Once the ECP monitoring system was installed, a negligible amount of feedwater has to be removed from the system, monitored and returned back into the system. The addition of the connections does not impact any feedwater system function as defined in section 3/4.7 of the Technical Specifications.

SUBJECT: MDC 94-VAM123, revision 0, sequence 1

DESCRIPTION: The turbine driven auxiliary feedwater pump turbines were originally provided with redundant overspeed trips, with the electrical trip set lower than the mechanical trip. The original concept of using two trips was that the electrical trip, which does not require local operator action to reset, would trip the turbine before the mechanical trip occurred. Industry operating experience indicates that most trips occur upon turbine startup when acceleration is rapid and that the electrical trip does not occur fast enough to prevent operation of the mechanical trip device. By eliminating this redundant trip, the reliability of the system was improved. The annunciator indicating an overspeed condition has been retained as a warning to the potential for an overspeed condition.

SAFETY EVALUATION: The turbine driven auxiliary feedwater pump turbine is described in FSAR sections 7.3.7, 10.4.9 and 10a. The FSAR text does not describe the overspeed trips of the turbine drive pump, and therefore did not require revision. FSAR figure 7.3.7-1 (sheet 5 of 12) which depicts the turbine logic required updating to reflect these changes. The elimination of the electrical overspeed trip has been reflected in plant operating procedures. The system continues to perform its intended function. The turbine driven auxiliary feedwater pump turbine operability required by Technical Specifications is not affected by the elimination of the overspeed trip.

SUBJECT: MDC 94-VAM130, revision 0, sequence 1

DESCRIPTION: With the current technology of electronic direct reading dosimeters (EDRDs) and the health physics coverage that is maintained during evolutions that could create a high alarm from these area monitors, there is no need for the indication/alarm in containment, and thus, the local indicator and alarm associated with RE-0002 and RE-0003 have been deleted. The leads for each of the affected indicators and alarms were lifted and removed at the appropriate outside containment points.

SAFETY EVALUATION: FSAR sections 3.11.N.1, 12.3.4.1.3, 12.3.4.1.5, 12.3.4.1.9, and 12.5.3.2.5 will require revision to delete reference to local alarms and indication associated with RE-0002 and RE-0003. FSAR sections 12.1.3 and 12.5.3.6 will be revised to discuss the alarming function of the EDRD. FSAR figure 9.4.6-2 (1X4DB213-2) was changed as part of the normal update process.

SUBJECT: MDC 94-V2M135, revision 0, sequence 1

DESCRIPTION: To improve the reliability, operability and maintainability of the main turbine EHC system, several modifications were made to the hydraulic power unit. The changes were as follows: 1) addition of a second filter in parallel with each of the existing pump discharge filters complete with isolation valves to allow filter replacement during pump operation, 2) replacement of the existing 1/2 micron fines filter downstream of the Fullers earth filter with a one micron absolute filter, and 3) modification of the high filter

dP indicating lights to be illuminated when the filter is clean which will permit detection of a burned out light bulb in addition to high DP.

SAFETY EVALUATION: The main turbine EHC system is generally discussed in FSAR section 10.2. The level of detail provided in this discussion is such that the changes implemented by this modification do not necessitate a text revision. Figure 10.2.2-4 required revision to depict the added equipment. Operation of the EHC system as described in the FSAR section is not impacted by these changes. Operational procedures require revision to reflect the additional equipment. However, system operation is as before. The modification does not impact any requirements stated in Technical Specifications concerning the main turbine trip or overspeed functions.

SUBJECT: MDC 94-V2M145, revision 0, sequence 1

DESCRIPTION: The turbine driven auxiliary feedwater (TDAFW) pump turbine was supplied with two devices to locally indicate the exhaust pressure inside the turbine, a pressure indicator and a small spring loaded valve. The pressure indicator, mounted on the local control panel, has a range of 0 -to 15 psig. The valve, which discharges steam into the turbine room as an indication of excess pressure opens at approximately 22 psig. Since the turbine exhaust is piped to atmosphere without any isolation valves, the exhaust pressure is only a function of the steam flow and piping restriction. The exhaust pressure has been estimated to be above 15 psig and less than the sentinel valve setting when the turbine is operated at full speed injecting to the steam generators at full power. This exceeds the pressure gauge range and results in the frequent opening of the sentinel valve spraying water/steam into the room. This condition is not desirable. With this change, the sentinel valve was removed and the pressure gauge was replaced with a 0 to 60 psig gauge.

SAFETY EVALUATION: The turbine driven auxiliary feedwater pump turbine is discussed in FSAR sections 7.3.7, 10.4.9 and 10a. The range of the pressure indicator is not provided and therefore did not necessitate a text revision. Figure 10.4.9-1 (sheet 2 of 2) required revision to depict the deleted sentinel valve. Operation of the turbine driven auxiliary feedwater pump turbine as described in the FSAR section is not impacted by these changes. Operational procedures required revision to reflect the changes associated with this modification. However, system operation is as before. The modification does not impact any requirements stated in Technical Specifications concerning the TDAFW pump turbine operability.

SUBJECT: MDC 94-V1M161, revision 0, sequence 1

DESCRIPTION: Mechanical seals installed on the TPCW pumps were experiencing short service lives. A modification had already been implemented to improve the cleanliness of the water at the seal face. Additionally, a change in the valve alignment improved pressure in the seal housing well above process pressure. Following implementation of a change to increase flow to the circulating water pumps, it was again noted that seal injection pressure was again below process pressure. Through investigation it was observed that the branch line to the TPCW pumps from the utility water system was located downstream of the strainer in the supply line. It was determined that this, coupled with the increased flow to the circulating water pumps, hindered flow to the TPCW pump seals. The location of the branch connection to the TPCW pumps was relocated to upstream of the strainer which increased supply pressure to the TPCW seals to an acceptable value.

SAFETY EVALUATION: Changing the turbine plant cooling water system is described in FSAR section 9.2.11. The circulating water system is described in FSAR section 10.4.5. The utility water system is not specifically addressed in the FSAR. The discussions contained within these sections do not address the location of the branch line in relation to the strainer. FSAR figure 10.4.5-1 required updating to reflect the current system configuration. The utility water system, the turbine plant cooling water system and the

circulating water system are not affected by this change. The systems affected by this change are not the subject of any Technical Specification.

10 CFR 50.59(B) REPORT
OF TESTS & EXPERIMENTS.
OCTOBER 21, 1993 THRU MARCH 31, 1995

VOGTLE ELECTRIC GENERATING PLANT
UNITS 1 & 2

SUBJECT: SPECIAL TEST- (T-ENG-94-08) unit 1

DESCRIPTION: The test required the removal of the internals of the safety injection (SI) pump suction check valve 1-1204-U6-090 to allow reverse flow through the SI suction line. The interlocks for valve 1-HV-8804B were temporarily defeated to allow the valve to be opened to provide flow to the tested valves from RHR Train B. This test was required to coordinate dynamic (flow and pressure) testing as required by the NRC Generic Letter 89-10 program. The testing modified the plant and manipulated components as necessary to simulate design basis pressures and flows.

SAFETY EVALUATION: This procedure required the removal of the internals of the SI pump suction check valve 1-1204-U6-090, and the temporary bypassing of the interlocks of valve 1-HV-8804B and was therefore considered a test not described in FSAR. This change to the plant was shown in FSAR figure 6.3.2-1, sheet 4 of 4, and the description of the ECCS valve interlocks described in FSAR section 7.6.2. Due to the temporary nature of this change, no change to the FSAR was warranted. This was based on a review of FSAR sections 3.0, 4.0, 5.4.7, 6.3, 7.3, 7.6, 15.0, and 16.0.

SUBJECT: SPECIAL TEST- (T-ENG-94-17) unit 1

DESCRIPTION: The test required the removal of the internals of the SI pump suction check valve 1-1204-U6-090 to allow reverse flow through the SI suction line. The interlocks for valve 1-HV-8804A were temporarily defeated to allow the valve to be opened to provide flow to the tested valves from RHR Train A. This test was required to coordinate dynamic (flow and pressure) testing as required by the NRC Generic Letter 89-10 program. The testing modified the plant and manipulated components as necessary to simulate design basis pressures and flows.

SAFETY EVALUATION: This procedure required the removal of the internals of the SI pump suction check valve 1-1204-U6-090, and the temporary bypassing of the interlocks of valve 1-HV-8804A and was therefore considered a test not described in FSAR. This change to the plant was shown in FSAR figure 6.3.2-1, sheet 4 of 4, and the description of the ECCS valve interlocks described in FSAR section 7.6.2. Due to the temporary nature of this change, no change to the FSAR was warranted. This was based on a review of FSAR sections 3.0, 4.0, 5.4.7, 6.3, 7.3, 7.6, 15.0, and 16.0.

SUBJECT: SPECIAL TEST- (T-ENG-94-23) unit 1

DESCRIPTION: This special test provided the functional test instructions for Train A of DCP 93-V1N0061. This test provided the instructions to functionally test an additional standby offsite power source and the parallel transfer capability for the class 1E 4160v buses between offsite sources. During this test, the interlocks between the normal and alternate sources for switchgear 1AA02 were defeated requiring both breakers to remain closed. This allowed phasing verification between RAT 1A, RAT 1B, and the SAT at disconnect switches A4211 and A4213.

SAFETY EVALUATION: This special test was considered to be a test not described in the FSAR because the interlocks between the normal and alternate sources for switchgear 1AA02 were defeated, allowing both breakers to remain closed. This was an abnormal configuration, and was only done to allow phasing verification between RAT 1A, RAT 1B, and the SAT. The test also required bus 1AA02 to be unloaded and considered out of service. However, if there were a fault on bus 1AA02 or disconnect switches A4211 or A4213 during that time, the normal bus protection was in service and would have isolated bus 1AA02 and disconnect switches A4211 and A4213 from RAT 1B. This was based on a review of FSAR sections 1.9, 8.1, 8.2, 8.3, and 9.3.

SUBJECT: SPECIAL TEST- (T-ENG-94-24) unit 1

DESCRIPTION: This special test provided the functional test instructions for Train B of DCP 93-V1N0061. This test provided the instructions to functionally test an additional standby offsite power source and the parallel transfer capability for the class 1E 4160v buses between offsite sources. During this test, the interlocks between the normal and alternate sources for switchgear 1BA03 were defeated requiring both breakers to remain closed. This allowed phasing verification between RAT 1A, RAT 1B, and the SAT at disconnect switches A4221 and A4223.

SAFETY EVALUATION: This special test was considered to be a test not described in the FSAR because the interlocks between the normal and alternate sources for switchgear 1BA03 were defeated, allowing both breakers to remain closed. This was an abnormal configuration, and was only done to allow phasing verification between RAT 1A, RAT 1B, and the SAT. The test also required bus 1BA03 to be unloaded and considered out of service. However, if there were a fault on bus 1BA03 or disconnect switches A4221 or A4223 during that time, the normal bus protection was in service, and would have isolated bus 1BA03 and disconnect switches A4221 and A4223 from RAT 1A. This was based on a review of FSAR sections 1.9, 8.1, 8.2, 8.3, and 9.3.

SUBJECT: SPECIAL TEST- (T-ENG-95-01) unit 2

DESCRIPTION: This special test provided the functional test instructions for Train A of DCP 93-V2N0062. This test provided the instructions to functionally test an additional standby offsite power source and the parallel transfer capability for the class 1E 4160V buses between offsite sources. During this test, the interlocks between the normal and alternate sources for switchgear 2AA02 were defeated requiring both breakers to remain closed. This allowed phasing verification between RAT 2A, RAT 2B, and the SAT at disconnect switches A4231 and A4233.

SAFETY EVALUATION: This special test was considered to be a test not described in the FSAR because the interlocks between the normal and alternate sources for switchgear 2AA02 were defeated, allowing both breakers to remain closed. This was an abnormal configuration and was only done to allow phasing verification between RAT 2A, RAT 2B, and the SAT. The test also required bus 2AA02 to be unloaded and considered out of service. However, if there were a fault on bus 2AA02 or disconnect switches A4231 or A4233 during that time, the normal bus protection was in service, and would have isolated bus 2AA02 and disconnect switches A4231 and A4233 from RAT 2B. This was based on a review of FSAR sections 1.9, 8.1, 8.2, 8.3, and 9.3.

SUBJECT: SPECIAL TEST- (T-ENG-95-02) unit 2

DESCRIPTION: This special test provided the functional test instructions for Train B of DCP 93-V2N0062. This test provided the instructions to functionally test an additional standby offsite power source and the parallel transfer capability for the class 1E 4160V buses between offsite sources. During this test, the interlocks between the normal and alternate sources for switchgear 2BA03 were defeated requiring both breakers to remain closed. This allowed phasing verification between RAT 2A, RAT 2B, and the SAT at disconnect switches A4241 and A4243.

SAFETY EVALUATION: This special test was considered to be a test not described in the FSAR because the interlocks between the normal and alternate sources for switchgear 2BA03 were defeated, allowing both breakers to remain closed. This was an abnormal configuration, and was only done to allow phasing verification between RAT 2A, RAT 2B, and the SAT. The test also required bus 2BA03 to be unloaded and considered out of service. However, if there were a fault on bus 2BA03 or disconnect switches A4241 or A4243 during that time, the normal bus protection was in service, and would have

isolated bus 2BA03 and disconnect switches A4241 and A4243 from RAT 2A. This was based on a review of FSAR sections 1.9, 8.1, 8.2, 8.3, and 9.3.