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Energy to Serve Your World™

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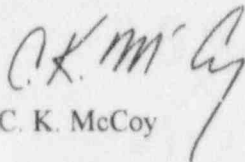
U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

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

Gentlemen:

In accordance with 10 CFR 50.59 (b) (2), Southern Nuclear Operating Company (SNC) hereby submits the Vogtle Electric Generating Plant (VEGP) Report of Facility Changes, Tests and Experiments. This reflects changes through November 12, 1996 which is consistent with the current Revision 6 of the Updated Final Safety Analysis Report.

Sincerely,


C. K. McCoy

CKM/JLL

Enclosure: Report of Facility Changes, Tests and Experiments.

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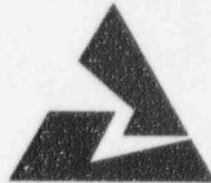
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**10 CFR 50.59(B) REPORT
OF FACILITY CHANGES
APRIL 1, 1995 THRU NOVEMBER 12, 1996**

**VOGTLE ELECTRIC GENERATING PLANT
UNITS 1 & 2**



Design Change Packages (DCPs)

SUBJECT: DCP 89-V2N0080 Revision 0, Sequence 1

DESCRIPTION: The design change replaced Crane Dynapump, tubing, valves, and associated equipment located on the radiation monitoring skid in the turbine building drain system, with a Goulds pump, piping, valves, and associated equipment. Also, a power supply cable was replaced in order to satisfy the voltage drop requirements.

SAFETY EVALUATION: Per UFSAR Section 9.3.3, the equipment and floor drainage systems collect effluent from equipment and floors, separate the effluents according to their activities, and transfer them to the proper area for processing or disposal. The design change required a revision to a certain drawing referenced in UFSAR Section 9.3.3. The equipment specified in the design change is non-safety related, non-seismic, do not function as the initiator of any accident, and are not required to function to mitigate the consequences of an accident as analyzed in the UFSAR. The system operation is not adversely affected by the design change. The margin of safety as defined in the Technical Specifications is not reduced by the design change.

SUBJECT: DCP 89-VCN0234, Revision 0, Sequence 1

DESCRIPTION: The design change enhanced the intraplant communication systems by modifying the Private Automatic Branch Exchange (PABX), Telephone/Page, sound powered and public notification systems.

SAFETY EVALUATION: The communication system as described in UFSAR Section 9.5.2, is designed to provide effective intraplant communications and effective plant-to-offsite communications during normal, transient, fire, and accident conditions, including loss of offsite power. The design changes resulted in a revision to specific plant drawings referenced in Section 9.5.2. The design change modified certain equipment to enhance communication system. There is no adverse affect to safety related equipment. The margin of safety as defined in the Technical Specifications is not reduced by the design change.

SUBJECT: DCP 89-V1N0266, Revision 0, Sequence 1

DESCRIPTION: The design change installed additional emergency and security lighting fixtures to support operator safe shutdown actions and security surveillances on unit 1. This DCP contains safeguards information.

SAFETY EVALUATION: This DCP contains safeguards information. Implementation of this DCP does not increase the consequences of an accident or the probability of an accident. It does not affect equipment, system, or components required to mitigate the consequences of an accident as described in the UFSAR. The margin of safety has not been decreased as described in the basis for any Technical specification.

SUBJECT: DCP 89-V1N0297, Revision 0, Sequence 2

DESCRIPTION: The chlorine detectors and return air fans associated with the Control Building Control Room (CBCR) emergency HVAC system are currently abandoned in-place. The unit 1 CBCR

Design Change Packages (DCPs)

equipment was abandoned as part of sequence one of this DCP. The unit 2 equipment was abandoned during plant construction. However, the equipment was only abandoned in a limited manner as required to remove the equipment from service. This DCP deleted the chlorine detection system and return air fans associated with the CBCR emergency HVAC system and the chlorine detection system associated with the Technical Support Center (TSC) HVAC system. This modification also deleted the hand switches, indicators and recorders that are associated with the deleted equipment. The wiring associated with the above components were tagged as spared.

SAFETY EVALUATION: UFSAR Section 3.2.2 categorizes the plant equipment, components, and structures according to nuclear safety, seismic category, and codes and standards by the project classification system. Section 9.5.4 discusses the control building ventilation systems. Section 9.5.1 addresses the plant fire protection program. These sections required a revision according to the changes of the DCP. The changes represented a change to tasks described in the UFSAR, therefore procedures described in the UFSAR were also affected. The changes do not affect the requirements of the Technical Requirements Manual (TRM) nor do they affect the Technical Specifications (TS) bases. Since both the CBCR chlorine detection system and return air fans had been disabled, the changes do not adversely affect the operation of the CBCR emergency HVAC system. The TSC HVAC system has no safety design bases. Since none of the equipment specified in the design change, affected safety functions of the associated systems, and the equipment is not assumed to function during an accident, the changes do not increase the consequences of an accident previously evaluated in the UFSAR. The changes do not reduce the margin of safety as defined in the basis for any Technical Specifications.

SUBJECT: DCP 90-VIN0046 Revision 0, Sequence 1

DESCRIPTION: The design change removed several of the superfluous fire detectors. The basis for the change was the combination of inaccessibility for detector surveillance, maintenance or repair as well as a lack of fire loading in the immediate area of their locations.

SAFETY EVALUATION: UFSAR Section 9.5.1 addresses the fire protection program. Table 9.5.1-10 provides the fire protection operability requirements. The table was revised per the DCP changes. In addition, certain surveillance procedures were affected by the design change. Fire detectors are provided in any particular room for a) Activation of a pre-action sprinkler system. b) Early warning device for personnel safety in high occupancy areas. c) Early warning notice for activation of the fire brigade. Because, there is no sprinkler system in the affected rooms, activation of a pre-action system is not necessary. There is also very low combustible loading, and no fire event safe shutdown evaluation (FESSE) components or cables are located in the affected rooms. None of the affected rooms are readily accessible to personnel, therefore the early warning detection function for activation of fire brigade was ineffective. The design change does not affect the remaining detectors on the same string which provide protection for other rooms. No new accident scenarios are created by the design change. The margin of safety as defined in the Technical Specifications remains unaffected by the design change.

SUBJECT: DCP 90-VAN0051 Revision 0, Sequence 1

DESCRIPTION: Temperature switches 1/2TISH-0626 use temperature sensing bulbs attached to the switches with armored capillary tubes. The design change replaced the switches with temperature indicating switches which use resistance temperature detectors (RTD) for temperature sensing. The modification improves the accuracy, reliability and response time of the switches.

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SAFETY EVALUATION: UFSAR Section 9.1.3 describes the fuel pool cooling and purification system. The subject temperature switches are part of the instrumentation utilized to measure the temperature of the water in the spent fuel pool, and to provide local indication as well as annunciation in the control room when normal temperatures are exceeded. The design change required a change to the system drawing referenced in the UFSAR Section. The change provides a more accurate local temperature indication and main control room high water temperature alarm, and helps in preventing inadvertent contamination during maintenance or calibration of the instrument. The system operation is not adversely affected by the design change. The modification complies with applicable design criteria including the required seismic 2 over 1 criteria. The requirements of the Technical Specifications including Section 3/4.9.11, are not impacted by this DCP.

SUBJECT: DCP 91-V2N0004, Revision 0, Sequence 2

DESCRIPTION: The design modification installed necessary equipment (fiber optic repeaters, LAN bridges, cables and distribution centers) to allow the integrated plant computer (IPC) data network to be extended from the Technical Support Center (TSC) to the Emergency Operations Facility (EOF).

SAFETY EVALUATION: UFSAR Sections 9A.1.71 and 9A.1.88 were revised to reflect new combustible loading due to the addition of new cables in accordance with the design change. In addition, a certain drawing referenced in UFSAR Section 1.2.2 required a revision. The IPC system's ability to monitor plant systems is not affected by the design changes. The additional cable weight has a negligible effect on the tray support system. All the design criteria, HVAC cooling, seismic, fire protection, and physical and electrical separation of safety and non-safety related equipment have been maintained. The equipment required the plant and provide safety functions is not changed by the DCP. The design change does not reduce the margin of safety as defined in the basis of the Technical Specifications.

SUBJECT: DCP 91-VAN0012, Revision 0, Sequence 1

DESCRIPTION: DCP 91-VAN0012 deleted flow element AFE-254 and the associated indicator and wiring from the Boron Recycle System. AFE-254 and its associated indicator (AFIY-254) provided flow as well as a high alarm indication for the Recycle Holdup Tank Demineralizer. Actuation of this high alarm indicated that the integrated flow had reached a value at which the volume of gases (hydrogen and fission gases) that had come out of solution warranted venting the recycle holdup tanks. This same function was being accomplished through plant procedures requiring routine venting (every 2 months) or through operations manually tracking the volume of flow and venting the tanks as required. Since AFE-254 had not been operational for several years and there are other existing means available for accomplishing the same function, it was determined to delete AFE-254, AFIY-254 & the associated wiring per this DCP.

SAFETY EVALUATION: The Boron Recycle System (BRS) is described in UFSAR section 9.3.4.2. This design change resulted in a change to the text of UFSAR section 9.3.4.2.5.3, where the UFSAR references the affected flow indication and high alarm being removed from the BRS Panel. Also the system drawing referenced in UFSAR section 9.3.4 was revised by this DCP. The flow element and indicator are not safety related equipment. There is no actuation associated with these instruments. The purpose of these instruments was to provide indication that the total integrated flow received by the Boron Recycle System (BRS) had reached a value at which the volume of gases (hydrogen and fission gases) that had

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come out of solution warranted venting the recycle holdup tanks. This same function is being accomplished through procedures requiring routine venting or through operations manually tracking the volume of flow and venting the tanks as required. This design change does not affect any Technical Specifications, including sections 3/4.1.1 and 3/4.1.2.

SUBJECT: DCP 91-VIN0045, Revision 0, Sequence 1

DESCRIPTION: The design change installed corrosion coupon racks for both trains of the Nuclear Service Cooling Water (NSCW) system. The racks allow for continuous monitoring of corrosion rates in the NSCW system, and are located in the chemical addition building.

SAFETY EVALUATION: Operation of the NSCW system is discussed in UFSAR Section 9.2.1. Certain system drawings referenced in this section, and the system description were revised per the DCP. In addition, a drawing referenced in UFSAR Section 9.3.7 on the configuration of NSCW chemical injection system was revised. UFSAR Appendix 9A was revised to include plastics as a fixed combustible material. The design change has no adverse affect on the operation of NSCW system or the ultimate heat sink. The Fire Protection systems protecting the affected fire areas remain adequate with the additions made by the design change. The ability of the NSCW cooling tower to perform its safety function is not adversely affected by the reduced flow to the cooling tower spray headers. The material for the racks is compatible with the chemistry of the NSCW system and the material of the NSCW system. The seismic qualifications of the system and the ultimate. The DCP does not exceed any acceptance limits nor does it reduce the margin of safety identified in the basis for any Technical Specifications.

SUBJECT: DCP 91-V2N0046, Revision 0, Sequence 1

DESCRIPTION: The design change installed corrosion coupon racks for both trains of the Nuclear Service Cooling Water (NSCW) system. The racks allow for continuous monitoring of corrosion rates in the NSCW system, and are located in the chemical addition building.

SAFETY EVALUATION: Operation of the NSCW system is discussed in UFSAR Section 9.2.1. Certain system drawings referenced in this section, and the system description were revised per the DCP. In addition, a drawing referenced in UFSAR Section 9.3.7 on the configuration of NSCW chemical injection system was revised. UFSAR Appendix 9A was revised to include plastics as a fixed combustible material. The design change has no adverse affect on the operation of NSCW system or the ultimate heat sink. The Fire Protection systems protecting the affected fire areas remain adequate with the additions made by the design change. The ability of the NSCW cooling tower to perform its safety function is not adversely affected by the reduced flow to the cooling tower spray headers. The material for the racks is compatible with the chemistry of the NSCW system and the material of the NSCW system. The seismic qualifications of the system and the ultimate. The DCP 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-VAN0140, Revision 0, Sequence 3

DESCRIPTION: The design change replaced the security computer system with a new more reliable security computer system. This DCP contains safeguards information.

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SAFETY EVALUATION: This DCP contains safeguards information. The new security computers are located in the PESB, and are non-1E and non-safety related. No new penetrations were added by the DCP. Electrical separation requirements were maintained. The design change does not affect any safety related equipment. The security computer system is not mentioned in the Technical Specifications.

SUBJECT: DCP 92-V2N0145, Revision 0, Sequence 3

DESCRIPTION: The design change lowered the total KVA rating for four Sola ferroresonant transformer banks. The banks are comprised of 7.5 KVA transformer units which are wire in parallel to provide 15 KVA rating. In addition, the primary side circuit breaker rating was reduced to maintain appropriate overcurrent protection. Also two specific Class-1E primary side circuit breakers were replaced with breakers containing alarm switches rather than the auxiliary switches.

SAFETY EVALUATION: UFSAR Section 8.3.1 provides a description of the onsite ac power systems including a discussion on the operation of the transformers. The design change required a revision to certain drawings referenced in this section. By decreasing the number of transformers in the bank and increasing the load on each transformer, a stable operation can be attained, and the reliability of the transformer bank can be increased. The changes do not alter the failure mode of any safety related equipment or system components. The change allows alarm circuit initiation from a circuit breaker trip condition only rather than the breaker open condition; therefore, minimizing the breaker alarm initiations. Each transformer unit is supported individually such that removal of the units did not affect the mounting integrity of other transformer units. The design change does not introduce any new failure modes or effects. The new breakers are qualified, meet the appropriate design criteria, and are electrically coordinated for this application. The design change does not decrease the margin of safety as defined in any Technical Specifications because it does not affect operations of any safety-related equipment required for safe shutdown or mitigation and control of accident conditions.

SUBJECT: DCP 92-VAN0183, Revision 0, Sequence 1

DESCRIPTION: The DCP changed the roofing system on the auxiliary building 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. The design change required several electrical changes.

SAFETY EVALUATION: The level of detail for roof specifics is not addressed in the UFSAR, however, certain drawings referenced in UFSAR Section 9.4.3, required a revision to reflect new locations of certain instruments which were relocated in accordance with the modification. The installation of the built-up roof around the auxiliary building air intake/duct missile shield was reviewed and no adverse impact to air flow in to the structure was determined. Rework of the conduit for the MSIV HVAC also does not impact any previous evaluations. The design change complies with the requirements of plant design criteria, therefore, the margin of safety as defined in the basis for any Technical Specifications is not reduced.

SUBJECT: DCP 92-VAN0205, Revision 1, Sequence 1

DESCRIPTION: The Hydrogen Recombiner and Monitoring System is designed to ensure that,

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following a loss-of-coolant accident, containment hydrogen concentration is maintained at a level low enough to preclude hydrogen burning or an explosion. The system consists of two trains of monitors. The design change implemented several modifications, such as, addition of valves, instrumentation, rerouting of tubing, to make the monitors more reliable.

SAFETY EVALUATION: The Hydrogen Recombiner and Monitoring System is addressed in UFSAR section 9.4.6. This section and UFSAR Section 9A on Fire Protection Program were revised in accordance with the DCP. The design changes increase the reliability of the system and do not increase the probability of an accident previously evaluated in the UFSAR. The instrumentation added by the DCP is designed to seismic category 1. If it is assumed that a malfunction of the hydrogen monitor were to occur, the radiological consequences would not be increased due to the use of different flow meters, covers over the flow meter knobs, tees and isolation valves in the calibration lines, or additional calibration gas lines. There is no accident which can be postulated that would prevent the hydrogen monitors from performing their function. The margin of safety as defined in the basis for any Technical Specifications is not reduced because the design changes do not adversely affect the normal operation and function of the system.

SUBJECT: DCP 93-V1N0050, Revision 0, Sequence 2

DESCRIPTION: The existing analog type Woodward EGA governor used on the emergency diesel generator (EDG) had become obsolete and was no longer being manufactured. The NRC has also recognized accelerated engine aging degradation associated with fast starting the emergency diesel generator as addressed in NUREG-CR-5057 and NUREG-1366. As a result, the NRC recommended that the engines be slow started and loaded in accordance with the vendor recommendations for all test purposes other than the refueling outage loss-of-offsite power tests (NUREG-1366). This design change replaced the Woodward EGA analog control governor with a Woodward 701 digital control governor. The Woodward 701 governor is a digital speed controller which performs the same functions as the EGA analog control governor as well as also perform the slow start. The backup mechanical overspeed control is not affected by the design change. This change is applicable to both units 1 and 2.

SAFETY EVALUATION: The UFSAR does not discuss the emergency diesel generator to the detail of the type of governor used; however, section 8.3.1.1.3.H discusses the testing performed on the emergency diesel generators. The 701 governor allows slow starting of the engine during surveillance and maintenance testing, therefore, this section required a revision per the design change. Also, a specific drawing referenced in UFSAR Section 18.1 on human factors engineering for the control room, was revised. A Technical Specification change was approved and incorporated (Amendment 75) which allowed the slow starts during the 31-day test. During a loss-of-offsite power, the emergency diesel generator provides the on-site ac power source to operate the components required to mitigate an accident and bring the plant to, and maintain, cold shutdown. Should a single failure occur to either the 701 Digital Speed Control, Generator Load Sensor, Generator Load Control, magnetic pickup, or the actuator, the other EDG would be available to mitigate the accident. The Woodward 701 digital control governor performs the same safety functions as the Woodward EGA analog control governor. The EDG's and governor function only in response to an accident. They do not cause or initiate any accident. The basic failure modes (fail so that the engine speed increases, fail so that the engine speed decreases, and fail as is) of the 701 governor are the same as those for the EGA governor; therefore, no new failure modes are created. The EDG's 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 is maintained. No common mode failures were determined to be credible to the point that the safety of the plant would be jeopardized. No other types of failures are introduced as a this DCP. The Woodward 701 governor has been

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tested/qualified for this application and as discussed previously, no new failure modes of the diesel generator are introduced. Based on this and the Technical Specification changes resulting from Amendment 75, the margin of safety as defined in the Technical Specifications is not reduced as the result of the replacement of the existing governor with the Woodward 701 governor.

SUBJECT: DCP 93-VIN0052, Revision 0, Sequence 1

DESCRIPTION: The design change eliminated the Gross Failed Fuel Detector (GFFD), (1-1102-P5 GFD), and its associated components from the permanent plant design. The GFFD was installed as a means of rapidly determining fuel cladding failures by monitoring the delayed neutrons in the RCS. However, it was not proven to be reliable and was difficult to maintain. The use of RE-48000 and the Technical Specifications for RCS activity levels is adequate for monitoring for possible fuel cladding failures.

SAFETY EVALUATION: The GFFD is described in several locations in the UFSAR. As a result of this DCP, UFSAR Sections 14.2.8.1.32.D.2, (ACCW Preoperational Test), 9.2.8.2.1, (General Description), Table 3.9.B.3-9, (BOP Active Valves), and UFSAR Section 9.3.2.2.1, (System Description) were revised. A general equipment layout drawing referenced in Section 9.1.5, required a revision per the DCP. UFSAR sections 9.8.8, 9A, 14.2.8 and tables 3.2.2-1, 9.2.-1; 14.2.1-2, 16.3-4, were revised to indicate the elimination of the GFFD from Unit 1 and any associated changes. Also, UFSAR Sections 14.2.8.1.93 (Nuclear Sampling System Preoperational Testing) and 14.2.8.2.59 (Gross Failed Fuel Detector Test) were revised per the DCP. The GFFD is not taken credit for any of the accidents discussed in Chapter 15. It was installed to be used, along with other devices and test methods to identify possible fuel cladding failures. Radiation monitor RE-48000, located in the CVCS Letdown line and testing conducted as part of Technical Specification 3/4.4.8 also provides indication of fuel cladding failure. The use of RE-48000 and the Technical Specifications for RCS activity levels is adequate for monitoring for possible fuel cladding failures. Since deletion of the GFFD does not impact operation of other equipment important to safety, there is no increase in the possibility of a malfunction of equipment important to safety of a different type than any previously evaluated in the UFSAR. Therefore, there is no decrease in the effectiveness of monitoring for fuel cladding failures. As a result, the margin of safety as defined in the Technical Specification is not reduced by this change.

SUBJECT: DCP 93-VIN0061, Revision 0, Sequences 2 & 4

DESCRIPTION: The 13.8 kV underground connection between the Vogtle Electric Generating Plant and Plant Wilson required an electricity billing meter. The connection allows bi-directional power flow. Electric power from any one of Plant Vogtle's stand-by emergency diesel generators (EDGs) may be routed to the 230 kV grid via the Vogtle to Wilson 13.8 kV underground cable for testing and surveillance operations. Sequence two of the design change provided concrete foundations design for the new transformer, transformer neutral grounding resistor, and switchgear. This included the transformer oil retention reservoir and the reservoir tie-in to the existing low-voltage switchyard transformer containment reservoir drainage system. Electrical conduit work, as required, was provided to support foundation construction. This is a non-safety rated and a non-seismic design change. The equipment modified is located in the Low Voltage Switchyard or in the Unit 1 Turbine Building.

SAFETY EVALUATION: Field Change Request (FCR) 93-VIN0061-0-4-F003 combined scope of safety evaluations for sequences 1 through 4 of DCP 93-VIN0061. Per the FCR, UFSAR Sections, 1.2.2,

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1.9.6, 3.1.2, 5.4.1, 8.1.2, 8.1.4, 8.2.1, 8.2.2, 8.3.1 required a revision in accordance with the DCP. In addition, certain operational procedures implied by UFSAR Sections 1.9.6 and 8.3.1 associated with transferring the Class 1E bus to the alternate offsite source during Modes 5 and 6 were revised. The addition of the alternate source (RAT) circuit breakers provides an improved method of transferring loads to the alternate feed when maintenance is to be performed on a RAT during modes 5 and 6. The addition of the 125 Vdc load from the circuit breaker in the alternate feed circuit breaker cubicle is enveloped by the Class 1E battery and battery charger calculation and therefore has no effect on the Class 1E station battery or on station blackout. 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. Use of the Emergency Diesel Generator (EDG) will continue conform to the requirements of Branch Technical Position ICSB-8. Physical separation of the offsite power cable buses is provided to the same degree as in the original plant design. The protective relaying remains in place and is available to operate in case of a fault. A detailed hazard evaluation was performed for the penetrations breached during the modification. The failure of any devices installed by the DCP does not increase the consequences of an accidents described in the UFSAR. Replace or added equipment was procured to comparable specifications as the RATs and the cable bus between the RAT and the Class 1E buses. The coordination of the added relays with the existing relaying ensures that during the test mode the diesel generator will not trip due to a fault on the 13.8 kV line. During normal operation of the SAT, the relaying will be available to sense a fault on the 13.8 kV connection with Plant Wilson and isolate the faulted equipment from the onsite power supply in accordance with the existing design. The activity does not create the possibility of an accident of a different type than any previously evaluated in the UFSAR. Based on a review of Technical Specifications sections 3/4.8, the margin of safety as defined in the basis to the Technical Specifications is not reduced by the design change.

SUBJECT: DCP 93-VIN0069, Revision 0, Sequence 1

DESCRIPTION: The containment spray system (CSS) is an engineered safeguard system that functions to reduce reactor containment building pressure and temperature and the quantity of airborne fission products in the containment atmosphere subsequent to a loss of coolant accident (LOCA). The CSS was designed to use the spray additive tank (SAT) to provide the caustic containment spray. Technical Specifications required SAT related tests and maintenance to be performed. This testing and maintenance was resource intensive and the handling of concentrated sodium hydroxide solution requires special precautions due to its hazardous nature. The DCP provided a design change which eliminated the spray additive portion of the CSS, including the SAT. The replacement for the liquid sodium hydroxide (NaOH) spray additive system consists of crystalline trisodium phosphate (TSP) stored in baskets (Project Class 61C) located in the post-LOCA flooded region of the containment building. The recirculation fluid pH control system has the same function as the original spray additive system; that is, to mitigate the effects of a LOCA. The change to a passive pH control system eliminates the possibility of an active spray additive component failure.

SAFETY EVALUATION: This DCP revised the containment spray system and associated systems described in UFSAR Sections 1.2.6.2, 2.2.3, 3.11.5.1, 6.0, 6.1.1.2, 6.1.3, 6.2.2.2, 6.5.2, 7.3.1, 9A.1.9, and 15.6.5. In addition, the DCP represented changes to UFSAR tables 2.2.3-18, 3.2.2-1, 3.9.N.3-2, 3.11.B.1-1, 3.11.N.1-1, 6.2.2-4, 6.2.2-5, 6.2.4-1, 6.3.2-7, 6.5.2-2, 7.5.2-1, 9.3.2-4, 15.6.5-4, 15.6.5-6, and 15.6.5-7. The pH control system, as designed, cannot initiate any accident evaluated in the UFSAR, since it is an accident mitigation system designed to function only when in contact with a liquid. Both the spray additive subsystem and the TSP baskets function in response to, and not as precursors to, an accident. This DCP has no adverse affect on any of the accidents or transients that may have radiological consequences. Dose results calculated are within 10CFR100 and General Design Criteria (GDC) 19 limits. The elimination of

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the SAT water inventory decreases a heat sink in containment. Since the SAT is not modeled as a heat sink in either the small or large break LOCAs, these analyses are not impacted. The baskets are designed to Seismic Category 1 standards. The high energy pipe break zones of influence calculations were reviewed for jet impingement on the TSP baskets. The spray additive portion will no longer be required to meet the requirements of ASME Section III. However, it will continue to meet the requirements for Seismic Category 1. This DCP does not increase the consequences of a malfunction of equipment important to safety previously evaluated in the UFSAR. This DCP has no adverse impact on the possibility of a malfunction of equipment important to safety. The Technical Specifications, including sections 3/4.5.2, 3/4.6.2.2, B3/4.5.2, 3/4.5.3, B3/4.6.2.2, 6.7.4 and Table 3.8-1, were reviewed. The addition of the mass for the TSP and baskets does not have a significant impact on peak clad temperature (PCT) and the bases for 3/4.5.2 will continue to be met. This DCP does not exceed any acceptance limits nor does it reduce the margin of safety identified in the basis for any Technical Specification. NRC approval of the Technical Specification changes has been received.

SUBJECT: DCP 93-V1N0071, Revision 0, Sequence 1

DESCRIPTION: A problem occurred during performance of test involving Safety Injection (SI) actuations. Upon initiation of an SI signal, the Solid State Protection System (SSPS) logic also generates a Containment Ventilation Isolation (CVI) signal. The SI signal to the sequencer causes block relays to operate, preventing loads from operating prematurely in the loading sequence; however, for the Piping Penetration Fans, the CVI contact in SSPS closes before the sequencer block relays can operate, thus allowing the fan motors to start at 0.5 seconds in the load sequence instead of the designed time of 15.5 seconds. The purpose of this design change is to modify the Unit 1 breaker close logic to allow the block relays to operate prior to the (CVI) contact, thus allowing the sequencer to properly load the bus.

SAFETY EVALUATION: UFSAR section 7.3.13.1.1 describes the operation of the piping penetration area filtration and exhaust system. This section and a certain drawing referenced in UFSAR Section 7.3.13 required a revision per this DCP. Delaying the CVI signal in accordance with this modification allows the motor load to be added to the electrical bus in the proper sequence and thus reduces the bus voltage drop during the first sequence step. The additional bus voltage available during the first sequencer step has a positive effect on the operation of other loads which are designed to operate at this time (i.e. motor operated valves). Therefore, the addition of a time delay relay does not increase the probability of occurrence of any accident. The consequences of the fans starting with a 5 second delay after a CVI would be insignificant and are bounded by the SI scenario in which the fans start 15.5 seconds after the CVI (in conjunction with SI) is initiated. The failure modes and effects for the system as outlined in UFSAR Table 9.4.3-5 remain unaffected by the change. Based upon a review of the bases of Technical Specification sections 3/4.7.7, 3/4.8.1, and 3/4.8.3, the change does not affect the margin of safety as defined in the bases.

SUBJECT: DCP 93-V2N0073, Revision 0, Sequence 1

DESCRIPTION: The valve packing on valves 2HV-8701A & B and 2HV-8702A & B was found to exhibit leakage in a relatively short period of time after repacking. Based on industry experience and EPRI Study Report Number NP-5697, the design change installed an improved packing configuration of a five ring graphite packing set. A section of the line also required removal and capping to prevent radioactive fluid from leaking.

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SAFETY EVALUATION: UFSAR Sections 5.4.12.2, 12.3.1.1.1.1, 6.3.2.2.11, and 12.3.3.3.1 define the valves required to have valve stem leak off lines and discuss valve packing configurations for those valves. These UFSAR sections and a certain drawing referenced in UFSAR section 5.4.7, were revised per the DCP. The modification does not adversely affect the operation or ability of the RHR system or any other systems required to mitigate an accident. The seismic qualification of the valve, valve operator, and piping system are not adversely affected. The design change improves the valve stem seal and therefore reduces the probability of valve stem leakage which also reduces the RCS leakage. The modification does not reduce the margin of safety as defined in the basis for any Technical Specification.

SUBJECT: DCP 93-VAN0082, Revision 0, Sequence 1

DESCRIPTION: In order to comply with the regulations of 1990 Clean Air Act, this modification installed a high efficiency purge system on each of the chillers in the Essential Chilled Water System. As the new purge unit is air cooled by its own refrigerant cycle, the existing purge unit cooling water supplied by the Essential Chilled Water System was capped. The rupture disk was replaced by a combination rupture disk/relief valve. These modifications minimize the refrigerant loss from the chillers due to operation of the air purge or rupture disk. The new purge units and their microprocessor based digital control system meet or exceed the seismic and equipment qualification requirements.

SAFETY EVALUATION: The essential chilled water system as described in UFSAR Section 9.2.9, required a revision per the DCP. By providing field proven systems which comply with industry standards and electromagnetic interference/radio frequency interference (EMI and RFI) requirements, the affected loop reliability is not degraded. The failure modes will remain the same for the chiller unit after the modification. The failure modes remain the same for the chiller unit after the modification. The consequences of an accident will remain the same as before any changes to the chiller are performed. The operability of the essential chillers is not adversely affected by the modification. No new failure modes of the purge unit's control system are introduced. This modification has no effect on the margin of safety or the safety limits which form the basis for the Technical Specifications.

SUBJECT: DCP 94-VAN0005, Revision 0, Sequence 1

DESCRIPTION: The spent fuel pit backflushable filters are designed to remove contaminants as small as 5 microns nominal. This design change modified the filters to give the plant the flexibility to utilize filters rated as low as 0.1 microns absolute. Removing contaminants this small reduce the background radiation levels in the spent fuel pool area, reduce radiation exposure during the refueling process, improve the refueling water storage tank (RWST) water clean-up, and maintain/improve refueling water clarity.

SAFETY EVALUATION: The spent fuel pit backflushable filter is discussed in UFSAR sections 3.2.2, 9.1.3, 9.5.1, and 11.4.2. These sections required a revision per the design modifications. The modifications were performed to comply with all applicable original design criteria and codes. The spent fuel pit filter is not required to perform any function to mitigate an accident. The modification has no adverse effect on the operation or function of any equipment or component required to mitigate an accident. The filter handling cask (used to transport the spent filter cartridge) and the spent cartridge filter together weigh approximately 5600 lb. It was determined by analysis that a load drop of 6000 lb. from a height of 3 feet would not damage the floor and prevent secondary missiles that could damage safe shutdown equipment. Since a failure in the filter vessel pit would adversely affect the spent fuel pit

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cooling system or any system required to mitigate an accident, this design change does not reduce the margin of safety as defined in the basis of any Technical Specification.

SUBJECT: DCP 94-V1N0009, Revision 0, Sequence 1

DESCRIPTION: The Single Integrated Gripper Mast Assembly (SIGMA) refueling Machine has had various electrical, mechanical, and computer problems since initial start-up. This design replaced the SIGMA Control Console and associated field devices with a reliable PLC-based control console capable of semi-automatic operation via interface with an IBM compatible PC. The new control console is interchangeable between Unit 1 and 2.

SAFETY EVALUATION: UFSAR Section 9.1.4.2 discusses design and operation of light load handling equipment needed for the refueling operations. This section and a UFSAR table 16.3-5 were revised per the DCP modification. The replacement control system for the refueling machine retains all the safety interlocks and functions of the original control console. The maximum stresses imposed on the fuel assembly are within the allowable limits. This DCP does not alter the basic function or operation of the refueling machine. This design precludes the possibility of a dropped fuel assembly as discussed in UFSAR section 15.7.4. This design change has no adverse affect on any safety related systems used to mitigate or respond to an accident as described in the UFSAR, including that of section 15.7.4. The change introduces no new failure modes which could impact any associated system. The change does not reduce the margin of safety as defined in the basis for any Technical Specification.

SUBJECT: DCP 94-VAN0012, Revision 0, Sequence 1

DESCRIPTION: This modification tied the existing oily waste separators (OWS) for Units 1 and 2 together for Unit 1 and added an additional 2000 gpm capacity for Unit 2. The new unit operates the same as the old unit. The new unit has the capability of discharging into either units waste water retention basin. Also, light fixtures were added at the Unit 2 Oil Separator.

SAFETY EVALUATION: Certain drawings referenced in UFSAR Section 9.3.3 were changed by the design modification. The addition of capacity to the oily waste separator does not affect any equipment important to safety. The new light fixtures are not mounted above any safety related structures or equipment. Therefore the change does not increase the consequences of a malfunction of equipment important to safety previously evaluated in the UFSAR. The Technical Specifications and the bases to the Technical Specifications are not affected by the design change. There is no changes to safety limits or settings as the result of this modification. This design meets the applicable lighting requirements as committed to in the VEGP Physical Security and Contingency Plan.

SUBJECT: DCP 94-V1N0013, Revision 0, Sequence 1

DESCRIPTION: The chart recorders in each main control room are utilized to monitor either Post Accident Monitoring System (PAMS) variables, Emergency Operating Procedure (EOP) parameters, or power generation variables in accordance with NUREG-0737. Certain recorders had become obsolete and were a source of constant maintenance problems. With the installation of the Integrated Plant Computer (IPC), extensive trending capability is available to the operators on demand. The DCP lists the affected recorders, which were deleted/replaced in accordance with this modification.

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SAFETY EVALUATION: UFSAR Sections 3.11.N.1, 6.3.5.1.2, 9.2.8.5, 9.2.2, 12.3, 18.1.2, 6.5.1, 9.4.5, and 9.4.3.2.5 were revised to reflect the changes. Replacement of the multipoint digital indicators has no adverse effect on adjacent safety channels. The modification provides further assurance of a low probability that a common mode failure associated with microprocessor based recorders could possibly adversely impact nuclear safety. The new recorders are functionally identical and provide the same information as those previous recorders. There is no change to any separation criteria. The recorder components have also been seismically qualified by testing and reviewed to verify compatibility with the environment to which they will be exposed. The PAMS recorders do not initiate any safety functions. No other types of failures are introduced as a result of the new upgraded recorder or the removal of existing recorders. The margin of safety as defined in the bases to the Technical Specifications is not reduced by the modification.

SUBJECT: DCP 94-V2N0014, Revision 0, Sequence 1

DESCRIPTION: The chart recorders in each main control room are utilized to monitor either Post Accident Monitoring System (PAMS) variables, Emergency Operating Procedure (EOP) parameters, or power generation variables in accordance with NUREG-0737. Certain recorders had become obsolete and were a source of constant maintenance problems. With the installation of the Integrated Plant Computer (IPC), extensive trending capability is available to the operators on demand. The DCP lists the affected recorders which were deleted/replaced in accordance with this modification.

SAFETY EVALUATION: UFSAR Sections 3.11.N.1, 6.3.5.1.2, 9.2.8.5, 9.2.2, 12.3, 18.1.2, 6.5.1, 9.4.5, and 9.4.3.2.5 were revised to reflect the changes. Replacement of the multipoint digital indicators has no adverse effect on adjacent safety channels. The modification provides further assurance of a low probability that a common mode failure associated with microprocessor based recorders could possibly adversely impact nuclear safety. The new recorders are functionally identical and provide the same information as those previous recorders. There is no change to any separation criteria. The recorder components have also been seismically qualified by testing and reviewed to verify compatibility with the environment to which they will be exposed. The PAMS recorders do not initiate any safety functions. No other types of failures are introduced as a result of the new upgraded recorder or the removal of existing recorders. The margin of safety as defined in the bases to the Technical Specifications is not reduced by the modification.

SUBJECT: DCP 94-VAN0015, Revision 0, Sequence 1

DESCRIPTION: The entry turnstiles in the Plant Entry and Security Building (PESB) and in the Alternate PESB were equipped with card readers and keypads to control access into the protected area (PA). The change replaced the keypads with biometric hand readers to control access into the protected area. The biometric hand readers were added to provide verification of identity of each person entering the protected area. Electric turnstiles were added to the PESB exit lanes and controlled by exit card readers.

SAFETY EVALUATION: The UFSAR references the VEGP Security Plan for discussion of the security system operation and procedures. Sections 4.3.2, which discusses control of card keys, and 5.1.1.2, which discusses unescorted access, were revised per the modification. Also, certain drawings in the security plan were revised. The does not affect any safety related components or interface with any safety systems. No accidents discussed in the UFSAR, including chapter 15, involve the security system. Separation of 1E and non-1E electrical circuits is maintained, and no modifications were made in a seismic

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category 1 or 2/1 area. The security system is not mentioned in the Technical Specifications or the bases, therefore the activity does not reduce the margin of safety as defined in the Technical Specifications.

SUBJECT: DCP 94-VAN020, Revision 0, Sequence 10

DESCRIPTION: The EHC pumps had been occasionally experienced erratic pressure compensator action and produced loud noises as a result of air entering the pump suction. This was as a result of the pumps being located above the normal fluid level in the tank when the units are in operation. The modification relocated the 2 EHC pumps on both unit 1 & 2 from their existing location on top of the hydraulic power units to the floor. The work required providing mounting for the pumps, routing piping from the existing tank connections to the pump inlet, routing piping from the pump discharge to the existing relief valves, extending the power cables, and adding both cutoff valves and drain valves.

SAFETY EVALUATION: The system drawing referenced in UFSAR Section 10.2.2 was revised per the modification. The EHC system can only effect accident scenarios by causing a reduction in hydraulic pressure that would lead to a reduction in steam supply or a turbine trip (both of which are discussed in UFSAR section 15.2). The modifications improved the reliability of the system and are conservatively designed so as to make the probability of an inadvertent pressure reduction negligibly small. The changes do not affect the normal design operation of the EHC system nor the changes have any affect on other safety systems. The changes do not effect the probability of a malfunction of safety related equipment. A review of the Technical Specifications, including the basis to section 3/4.3.4, the modifications to the EHC system do not reduce the margin of safety as defined in the basis for any Technical Specification.

SUBJECT: DCP 94-VAN0024, Revision 0, Sequence 1

DESCRIPTION: The Control Building Sump Pumps in Units 1 and 2 were difficult to maintain due to design and configuration problems. The change replaced the pumps with dewatering pumps which are submersible. The discharge piping for the pumps was changed from 2" diameter to 3" diameter piping and connects with the existing discharge piping.

SAFETY EVALUATION: The sump pumps are described in UFSAR Sections 9.1.5 and 9.3.3. Section 9.1.5 was revised to indicate the correct weight of the new pumps and the new discharge piping which must be lifted to remove the pumps for servicing. The system drawing referenced in Section 9.3.3 was revised per the design modifications. Section 9A.1.2 was revised per the changes in fire zones 42A and 80 by the design change. The affected equipment is non-safety related, and the drainage system performs no safety related function. The new piping has been analyzed and is supported to meet Seismic Category II/I requirements where required. The new pumps have a higher expected flow rate than the existing pumps, therefore under the expected conditions, the pumps prevent the sumps from overflowing. The change does not impact the margins of safety defined in Technical Specifications 3/4.11.1 and 3/4.12.1.

SUBJECT: DCP 94-VAN0029, Revision 0, Sequence 10

DESCRIPTION: 1HV-8220 (Valcor) valve had a history of failing the ISI/LLRT Post Accident Sampling System (PASS), slave relay, and IST surveillances. The valve is designed for the Reactor Coolant System (RCS) fluid and is required to isolate against RCS pressure. This design change replaced

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the Valcor valve with a Herion/Enertech solenoid operated globe valve, which utilizes RCS pressure for closure due to the pressurized above seat design.

SAFETY EVALUATION: UFSAR Table 6.2.4-1 and the system drawing referenced in the UFSAR section 9.3.2, were revised per this design change. The PASS serves no safety function and has no safety design basis, except for a containment isolation provision. The isolation valves in the system are selected, tested, and located in accordance with 10CFR50 requirements. The replacement valve is designed, procured and installed to meet or exceed the requirements of the original valve. The design change does not cause a change to any system interface in a way that would increase the likelihood of an accident. No new failure modes are created since the new valve is designed and constructed to meet or exceed the function and performance of the original valve. No new types of accidents are being introduced by the design change. The margin of safety as defined in the bases of the Technical Specifications, is not reduced.

SUBJECT: DCP 94-VAN0030, Revision 0, Sequence 1

DESCRIPTION: The unit 1 essential chillers are susceptible to low flow trips when the temperature control (TV) valves in control building control room HVAC systems, are placed in the close position simultaneously. This DCP added a minimum flow bypass line around the system temperature control valves 1TV-12725 & 1TV-12740 associated with air handling units 1-1532-A7-001/002. The change ensures that the total essential chilled water flow remains above the 350 gpm chiller trip setpoint whenever both control valves are in the closed position.

SAFETY EVALUATION: Certain system drawings referenced in UFSAR section 9.2.9 were revised per the modification. The minimum flow bypass line around the control valve ensures a minimum of 100 gpm flows through the system branch lines at all times. Since the maximum flow is not affected, this change has no affect on the ability of the system to provide the design cooling capacity when called for by the temperature switch. In addition, this change has no adverse impact on the minimum room temperature of the battery rooms served by this system since these rooms are provided with duct heaters for minimum temperature control. The design requirement to limit the space temperatures to 100°F is not affected by this change. The change does not affect the essential chilled water design bases requirement to ensure that the ambient air temperature does not exceed the allowable temperature limit for the equipment served by the system. The change does not reduce the margin of safety as defined in the bases of Technical Specification 3/4.7.11 or any other TS sections.

SUBJECT: DCP 94-VAN0031, Revision 0, Sequence 1

DESCRIPTION: An event occurred which de-energized heaters in three of the four control room emergency filtration system (CREFS) heaters. Power to the heater control circuitry is supposed to be automatically restored upon restoration of power; however, after a very short duration loss of power during the event, the heater circuitry failed to operate as intended. Subsequent investigation revealed that the vendor supplied power reset relays drop out on deenergization much faster than the Agastat timing relays. The design change deleted time delay relays which were used to automatically reset the ESF Air Filtration System heater units upon restoration of power. Also, the vendor supplied reset relays for the heater units were deleted. The automatic reset thermal cutout switches remained in place and the control circuitry was reworked internally such that upon a restoration of power, the units will be available for operation provided the thermal cutout switches are not tripped due to high temperature. The humidity control circuitry and the fan running permissive are unaffected by this change. The only change to the operation of the filter unit

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heaters is the elimination of the manual reset feature after a high thermal trip of the heater unit.

SAFETY EVALUATION: UFSAR paragraph 6.5.1.7.H describes the temperature setpoint of the automatic thermal cutout switches. This section was revised per the modifications. The affected systems do not control any plant processes involving the Reactor Coolant System (RCS), but are designed to reduce or limit the release of fission products following a postulated loss-of-coolant accident (LOCA) or fuel handling accident. Loss of one filter unit will not affect the ability of the opposite train system from performing its safety function, therefore the activity does not increase the consequences of an accident previously evaluated in the UFSAR. No credit is taken for heater operation for the Piping Penetration Area Filtration and Exhaust System or the Fuel Handling Building Post Accident Ventilation System. The heaters are provided to maintain the relative humidity of the airstream entering the adsorbers of the Control Room Emergency Filtration System (CREFS) below 70% per the bases to Technical Specification 3/4.7.6. Should one train of the CREFS fail, the other train is sized sufficiently to maintain.

SUBJECT: DCP 94-VAN0033, Revision 0, Sequence 1

DESCRIPTION: This design change modified the configuration of 8 Borg Warner Electric-Hydraulic Model 88900 operators to reverse the position of the servo-motor and the hydraulic pump for valves 1TY-12124, 2TY-12124, 1TY-12125, 2TY-12125, 1TY-12740, 2TY-12740, 1TY-12725, 2TY-12725, by relocating the motor to above the pump. Also, the operators were equipped with a limit switch mounted on the top of the hydraulic fluid reservoir which detects a low reservoir level but which were not operational. The design change powered these limit switches and installed indicator lights which advise the operators of low reservoir level without removal of the inspection ports. These valves are located in Essential Chilled Water and Nuclear Service Cooling Water systems.

SAFETY EVALUATION: The changes resulted in a revision to the system drawings referenced in UFSAR Sections 9.2.1 and 9.2.9. This DCP has no adverse affect on the Essential Chilled Water, Nuclear Service Cooling Water, Control Building Control Room HVAC, and Control Building Safety Feature Electrical Equipment Room HVAC Systems. It complied with all applicable design criteria and standards. The modification enhances the operator ability to identify low reservoir during their daily rounds. The new components perform the same basic function as were designed for the original components. The DCP does not exceed any acceptance limits nor reduces the margin of safety identified in the basis for any Technical Specification.

SUBJECT: DCP 94-VIN0040, Revision 0, Sequence 1

DESCRIPTION: The heater drain tank level control valves 1-LV-4331 and 1-LV-4332 were not passing enough flow to allow proper balancing of the level in the heater drain tanks without the use of the bypass lines and manual valves 1-1302-U4-760 and 761. The change replaced the existing 8" level control valves with new larger control valves that allows sufficient flow to eliminate the need for the bypass lines.

SAFETY EVALUATION: The change revised certain system drawings referenced in UFSAR Section 10.4.1. The design change allows the heater drain level control system to function as originally intended. The materials meet the requirements of the Piping Materials Classification document, and the change improves the resistance of the line to erosion/corrosion. Removal of the snubbers per the DCP reduces the probability of their failure causing a stress problem in the piping. This equipment is not important to safety and its failure will not increase the probability of occurrence of a malfunction of equipment important to

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safety previously evaluated in the UFSAR. The modification does not reduce the margin of safety as defined in the basis for any Technical Specification.

SUBJECT: DCP 94-V2N0041, Revision 0, Sequence 1

DESCRIPTION: The heater drain tank level control valves 2-LV-4331 and 2-LV-4332 were not passing enough flow to allow proper balancing of the level in the heater drain tanks without the use of the bypass lines and manual valves 2-1302-U4-760 and 761. The change replaced the existing 8" level control valves with new larger control valves that allows sufficient flow to eliminate the need for the bypass lines.

SAFETY EVALUATION: The change revised certain system drawings referenced in UFSAR Section 10.4.1. The design change allows the heater drain level control system to function as originally intended. The materials meet the requirements of the Piping Materials Classification document, and the change improves the resistance of the line to erosion/corrosion. Removal of the snubbers per the DCP reduces the probability of their failure causing a stress problem in the piping. This equipment is not important to safety and its failure will not increase the probability of occurrence of a malfunction of equipment important to safety previously evaluated in the UFSAR. The modification does not reduce the margin of safety as defined in the basis for any Technical Specification.

SUBJECT: DCP 94-VAN0043, Revision 0, Sequence 1

DESCRIPTION: The design change replaced the Auxiliary Building Continuous Exhaust System (ABCES) fans with Buffalo Forge heavy duty fans that are capable of providing the design system air flow rate at lower speeds. The new fans are a similar design arrangement as were the original fans, and are mounted on the existing inertia base. The new fans utilize the existing motors, power supply, and control scheme. However, the change required certain modifications of the ABCES ductwork to accommodate the new fan discharge dimensions. In addition, since the new ABCES fans affected the plant internally generated missile analysis, a shield was added to protect safety related chilled water piping that is located near the fans.

SAFETY EVALUATION: UFSAR section 3.5 addresses internally generated missiles from rotating components. This section was revised per the design modifications. The ABCES is not required to function during accidents evaluated in the UFSAR. The normal design function of the ABCES is not affected by the change, nor will there be any new interfaces with any safety related systems. The internally generated missile source from the fan blades are shielded as required and will not create any new hazards or impacts on safety related equipment. The ABCES is not discussed in the Technical Specifications, nor the modification affects other systems that are described in the Technical Specifications. The replacement of the ABCES fans does not reduce the margin of safety as defined in the bases for any Technical Specification, including the bases to section 3/4.7.7 and 3/4.7.11.

SUBJECT: DCP 94-V2N0044, Revision 0, Sequence 1

DESCRIPTION: The main turbine bearing vibration monitoring system originally provided by General Electric in the Advanced Turbine Supervisory Instruments (ATSI) system utilizes shaft riding probes, one per bearing, to monitor shaft vibration. The proposed change is to incorporate the Bentley Nevada system currently installed into the trip system of the main turbine. The Bentley Nevada system

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operates using dual proximity probes located at each bearing. These probes are to be utilized in a two-out-of-two trip configuration. This system offers greater reliability in that a single probe failure will not result in a turbine trip. Additionally, advanced self-checking features within the system detect and bypass channels if they fail.

SAFETY EVALUATION: UFSAR Section 10.2.2.5.2.2 refers to the thrust bearing wear detection circuit being capable of testing via an automatic system initiated from the control panel. The section was revised as the modification deletes the test circuitry. Due to the superior self diagnostic electronics of the Bentley Nevada equipment and the method of testing its components, the risk of an erroneous turbine trip is reduced. The consequences of a turbine trip will remain unchanged as a result of the modification. A reactor trip upon turbine trip is discussed in Tech Spec Bases section 2.2.1. The modification changed the main turbine thrust bearing wear trip setpoints. The new setpoints have been established per the recommendation of the turbine manufacturer. The trip setpoints have been evaluated (ref. G. E. letter) and found to be acceptable for turbine control. The Technical Specification requirements remain valid, therefore, the margin of safety as defined in the basis for any Technical Specification is not reduced by the modification.

SUBJECT: DCP 94-V1N0045, Revision 0, Sequence 1

DESCRIPTION: The main turbine bearing vibration monitoring system originally provided by General Electric in the Advanced Turbine Supervisory Instruments (ATSI) system utilizes shaft riding probes, one per bearing, to monitor shaft vibration. The proposed change is to incorporate the Bentley Nevada system currently installed into the trip system of the main turbine. The Bentley Nevada system operates using dual proximity probes located at each bearing. These probes are to be utilized in a two-out-of-two trip configuration. This system offers greater reliability in that a single probe failure will not result in a turbine trip. Additionally, advanced self-checking features within the system detect and bypass channels if they fail.

SAFETY EVALUATION: UFSAR Section 10.2.2.5.2.2 refers to the thrust bearing wear detection circuit being capable of testing via an automatic system initiated from the control panel. The section was revised as the modification deletes the test circuitry. Due to the superior self diagnostic electronics of the Bentley Nevada equipment and the method of testing its components, the risk of an erroneous turbine trip is reduced. The consequences of a turbine trip will remain unchanged as a result of the modification. A reactor trip upon turbine trip is discussed in Tech Spec Bases section 2.2.1. The modification changed the main turbine thrust bearing wear trip setpoints. The new setpoints have been established per the recommendation of the turbine manufacturer. The trip setpoints have been evaluated (ref. G. E. letter) and found to be acceptable for turbine control. The Technical Specification requirements remain valid, therefore, the margin of safety as defined in the basis for any Technical Specification is not reduced by the modification.

SUBJECT: DCP 94-V1N0048, Revision 0, Sequence 1

DESCRIPTION: The design change replaced the steam generator feed pump turbine low pressure steam supply check valves. These were swing type check valves. They were replaced with more reliable nozzle type check valves by the DCP.

SAFETY EVALUATION: The system drawing referenced in UFSAR Section 10.2.2, was revised to

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show the check valves with flanged connections to the pipe lines. This DCP has no adverse effect on the turbine drive steam system. It meets the applicable design criteria standards. The DCP has no direct or indirect effect on any equipment important to safety. The modification does not result in increased radiological consequences from a malfunction of equipment important to safety. This DCP does not exceed any acceptance limits nor reduces the margin of safety identified in the basis for any Technical Specification.

SUBJECT: DCP 94-V2N0049, Revision 0, Sequence 1

DESCRIPTION: The design change replaced the steam generator feed pump turbine low pressure steam supply check valves. These were swing type check valves. They were replaced with more reliable nozzle type check valves by the DCP.

SAFETY EVALUATION: The system drawing referenced in UFSAR Section 10.2.2, was revised to show the check valves with flanged connections to the pipe lines. This DCP has no adverse effect on the turbine drive steam system. It meets the applicable design criteria standards. The DCP has no direct or indirect effect on any equipment important to safety. The modification does not result in increased radiological consequences from a malfunction of equipment important to safety. This DCP does not exceed any acceptance limits nor reduces the margin of safety identified in the basis for any Technical Specification.

SUBJECT: DCP 94-VAN0050, Revision 0, Sequence 1

DESCRIPTION: The Condensate and Feedwater System, supplies the steam generators with heated feedwater in a closed steam cycle using regenerative feedwater heating. This design change installed a flow indicator, in each of the condensate pump's mechanical seal injection lines. The flowmeter was relocated downstream of the plug resistant orifice. There were certain piping modifications to the Unit 1 system per the design change. An isolation valve was installed (in each of the pump's mechanical seal injection lines) between the seal injection connection and the demineralized water connection. This configuration allows demineralized water to be backflushed through the plug resistant orifice as a means of keeping it clean.

SAFETY EVALUATION: Certain system drawings referenced in UFSAR Section 10.4.1, were revised in accordance with this DCP. The design change has no adverse affect on the condensate/feedwater system performing its safety function. The design change has no effect on the operation or function on any equipment in the system required to mitigate an accident. Therefore, the margin of safety as defined in the basis for any Technical Specification is not reduced.

SUBJECT: DCP 94-V1N0052, Revision 0, Sequence 1

DESCRIPTION: This DCP installed a Primary-to-Secondary Leakage Detection System. The system is an integral part of the total leakage monitoring program. The system is utilized to augment the presently installed detection systems consisting of condenser off-gas, steam generator blowdown, and main steam line monitors, as well as routine grab samples collected and analyzed in the chemistry labs.

SAFETY EVALUATION: UFSAR section 5.2.5.2. describes Identified Intersystem Leakage

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Detection and associated radiation detectors. Section 11.5.2 of the UFSAR describes the Process and Effluent Radiological and Sampling System (PERMS). These sections were revised to include the N16 detection monitor. This change does not alter the design or operating environment for any equipment important to safety. There are no automatic actuations associated with the N16 monitor. The N16 leak detection system is designed to provide a 30 GPD (or better) detection, and therefore provides an early warning capability. The margin of safety defined in the Technical Specifications is not reduced.

SUBJECT: DCP 94-V2N0053, Revision 0, Sequence 1

DESCRIPTION: This DCP installed a Primary-to-Secondary Leakage Detection System. The system is an integral part of the total leakage monitoring program. The system is utilized to augment the presently installed detection systems consisting of condenser off-gas, steam generator blowdown, and main steam line monitors, as well as routine grab samples collected and analyzed in the chemistry labs.

SAFETY EVALUATION: UFSAR section 5.2.5.2. describes Identified Intersystem Leakage Detection and associated radiation detectors. Section 11.5.2 of the UFSAR describes the Process and Effluent Radiological and Sampling System (PERMS). These sections were revised to include the N16 detection monitor. This change does not alter the design or operating environment for any equipment important to safety. There are no automatic actuations associated with the N16 monitor. The N16 leak detection system is designed to provide a 30 GPD (or better) detection, and therefore provides an early warning capability. The margin of safety defined in the Technical Specifications is not reduced.

SUBJECT: DCP 94-V1N0055, Revision 0, Sequence 1

DESCRIPTION: The Nuclear Sampling System - Liquid (NSSL) Panel in Unit 1 (1-1212-P5-NSP) has pressure control valves (PCV's) that are required to drop sample pressures to approximately atmospheric pressure with sample flow rates at less than one gallon per minute (~0.7 gpm). The original self-contained PCV's did not control the downstream pressure effectively, causing the safety relief valves (PSV's) to lift often. The change deleted/replaced/upgraded specific PCVs, flow meters (FI's) pressure indicators (PI's) and routed/capped certain sample lines. In addition, certain flushing connections, tube supports and lead shielding were added. Also, certain equipment and valves were retired in place by the modification.

SAFETY EVALUATION: Deletion of the valves and their common relief drain line required a revision to system drawing referenced in UFSAR section 9.3.2. The text of section 9.3.2.2.1 was also changed to indicate that the instrumentation and piping in both the Unit 1 and the Unit 2 sampling panels are qualified to the sample line pressures. Table 9.3.2-1 was revised to remove the sample point for the BRS Recycle Evaporator lines which was capped by this DCP. The change provides the NSSL Panel with sufficient pressure qualification to withstand the pressures of the various sample streams that were present in the panel. Leakage from the panel is less likely than before when the malfunctioning pressure control valves (PCV's) were causing excessive actuation of the PSV's. The changes to piping and tubing were evaluated according to Seismic Category II/I and Category I requirements where applicable and are acceptable. The change does not impact the safety related portion of the sample lines which feed the NSSL Panel. The reliability of the sampling necessary to ensure the requirements of Technical Specifications 3/4.4.7 and 3/4.4.8 is improved by the modification. The leakage minimization program associated with Technical Specification 6.7.4 is enhanced with the deletion of the potential leakage through the PSV's. Therefore, the change does not reduce the margin of safety as defined in the bases of the Technical

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SUBJECT: DCP 94-V1N0058, Revision 0, Sequence 1

DESCRIPTION: When a boric acid transfer pump was started, valve HV-8439 was opening due to the momentary high pressure experienced at the valve. The inadvertent opening of HV-8439 allowed concentrated boric acid to enter the RCS, which is undesirable. The change replaced the valve with a manually operated gate valve. The power and the control wiring to the valve were removed and spared.

SAFETY EVALUATION: The modification required a change to UFSAR Sections 3.2.2, Classification of Structures, Components, and Systems, 3.9.N.3, Active Valves, 3.11.N.1, Safety Related Mechanical and Electrical Equipment, 5.4.7, Residual Heat Removal System, 7.4.2, Instrumentation and Controls, 9.3.4.1.2.3, Reactor Makeup Control, and 9A, Fire Area. The installation of the manual valve meets all required design and seismic category 1 requirements. The ability to borate the RCS through the existing normal and emergency paths in response to a LOCA is not be impacted by this change. Neither the removal of solenoid valve HV-8439 nor the addition of manual valve 1208-U4-505 adversely impacts any system or component from performing its safety function. Technical Specifications 3/4.1.1, 3/4.1.2, and 3/4.9.1 were reviewed and determined to be not impacted by the change.

SUBJECT: DCP 94-V1N0059, Revision 0, Sequence 1

DESCRIPTION: The design change added a "sugar cube" light which provides a direct indication of Containment Ventilation Isolation (CVI) solid state protection system (SSPS) logic operability after resetting from a CVI. An annunciator window was also added to provide an annunciation for a CVI actuation for all automatic and manual signals.

SAFETY EVALUATION: UFSAR Section 7.2.1.1.7 discusses the solid state logic protection system. A drawing referenced in this section was revised to show addition of the annunciator to indicate the containment ventilation isolation actuation. This design change does not add or delete any SSPS trip functions or emergency safety features actuation specifications. The design change ensures that CVI is available to perform its intended function per the design basis. The bases of SSPS (reactor protection and emergency safety features actuation specifications) continue to be satisfied by the design change. Therefore, there is no reduction in the margins of safety associated with the technical specifications.

SUBJECT: DCP 94-V2N0060, Revision 0, Sequence 1

DESCRIPTION: The design change added a "sugar cube" light which provides a direct indication of Containment Ventilation Isolation (CVI) solid state protection system (SSPS) logic operability after resetting from a CVI. An annunciator window was also added to provide an annunciation for a CVI actuation for all automatic and manual signals.

SAFETY EVALUATION: UFSAR Section 7.2.1.1.7 discusses the solid state logic protection system. A drawing referenced in this section was revised to show addition of the annunciator to indicate the containment ventilation isolation actuation. This design change does not add or delete any SSPS trip functions or emergency safety features actuation specifications. The design change ensures that CVI is available to perform its intended function per the design basis. The bases of SSPS (reactor protection and

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emergency safety features actuation specifications) continue to be satisfied by the design change. Therefore, there is no reduction in the margins of safety associated with the technical specifications.

SUBJECT: DCP 94-V1N0061, Revision 0, Sequence 1

DESCRIPTION: Thermo-Lag is a fire barrier system manufactured by Thermal Science, Inc. (TSI). NRC issued Generic Letter GL 92-08 to notify the Licensees of the failure of fire endurance testing associated with TSI fire barrier. This design change provided design to re-route the Thermo-Lagged safe shutdown raceway and circuits or encase the raceway in an approved three hour fire barrier detail.

SAFETY EVALUATION: The design change required revisions to UFSAR Sections 9A.1, 3.8.4, 9.4.3 and 9.5.1. In addition, certain drawings referenced in these sections were revised. The utilization of three hour rated Gypsum Wallboard or Concrete/Clay Masonry barriers to protect cables and raceways used for the mitigation of accident effects, does not increase the probability of an occurrence of an accident previously evaluated in the UFSAR. The re-route of the associated cable nor raceway nor a valve re-location nor drain line re-location initiate nuclear accidents. The design incorporates features which minimize the probability and effects of fires. Fire Event Safe Shutdown Evaluation (FESSE) calculations provided the bases for many of these features. This design change does not affect the function of the re-located fire protection drain line or valve. The change does not create the possibility of an accident of a different type than any previously evaluated in the UFSAR. All existing and new penetrations breached were sealed per design documents. Based on a review of Technical Specifications 3/4.3.3.5, the margin of safety as defined in the basis to the Technical Specifications including 3/4.3.3.5 is not reduced by the design change.

SUBJECT: DCP 94-V2N0062, Revision 0, Sequence 1

DESCRIPTION: Thermo-Lag is a fire barrier system manufactured by Thermal Science, Inc. (TSI). NRC issued Generic Letter GL 92-08 to notify the Licensees of the failure of fire endurance testing associated with TSI fire barrier. This design change provided design to re-route the Thermo-Lagged safe shutdown raceway and circuits or encase the raceway in an approved three hour fire barrier detail.

SAFETY EVALUATION: The design change required revisions to UFSAR Sections 9A.1, 3.8.4, 9.4.3 and 9.5.1. In addition, certain drawings referenced in these sections were revised. The utilization of three hour rated Gypsum Wallboard or Concrete/Clay Masonry barriers to protect cables and raceways used for the mitigation of accident effects, does not increase the probability of an occurrence of an accident previously evaluated in the UFSAR. The re-route of the associated cable nor raceway nor a valve re-location nor drain line re-location initiate nuclear accidents. The design incorporates features which minimize the probability and effects of fires. Fire Event Safe Shutdown Evaluation (FESSE) calculations provided the bases for many of these features. This design change does not affect the function of the re-located fire protection drain line or valve. The change does not create the possibility of an accident of a different type than any previously evaluated in the UFSAR. All existing and new penetrations breached were sealed per design documents. Based on a review of Technical Specifications 3/4.3.3.5, the margin of safety as defined in the basis to the Technical Specifications including 3/4.3.3.5 is not reduced by the design change.

SUBJECT: DCP 94-VAN0065, Revision 0, Sequence 1

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DESCRIPTION: This design change grounded the neutral conductors feeding panel 1NY3N and the Gai-tronics Test and Distribution Cabinet. This modification changed these systems from ungrounded to grounded.

SAFETY EVALUATION: A certain drawing referenced in UFSAR Section 8.3.1 was revised to show the addition of a fuse to the hot conductor circuit of the Telephone/ Page (Gai-tronics) system and the deletion of a fuse in the grounded neutral conductor circuit. This change is to non-1E equipment located in the control building. Only changes to the wiring inside this equipment are affected. It does not affect any accidents evaluated in the UFSAR. The relocation of the fuses in the Gai-tronics cabinet for the containment penetration circuits affords the same level of protection of these penetrations as the original design. It does not increase the consequences of a malfunction of equipment important to safety evaluated in the UFSAR. This change does not reduce the margin of safety as defined in the Technical Specification.

SUBJECT: DCP 95-VAN0001, Revision 0, Sequence 1

DESCRIPTION: The NRC issued a final rule change to 10 CFR Part 73, to provide Protection Against Malevolent Use of Vehicles at Nuclear Power Plants. This rule change amended physical protection regulations for operating nuclear power reactors. This DCP provided passive and active vehicle barrier modifications to adequately protect the plant's vital areas and vital equipment and systems, as defined in the plant's security plan, against the design basis land vehicle and design basis threat bomb. The changes include the use of existing structures, precast Jersey barriers, revised fencing details employing the use of steel cables, bollards, and an active vehicle control barrier near the main access gate. This DCP contains safeguards information.

SAFETY EVALUATION: This DCP contains safeguards information. The modifications did not change any section/drawing referenced in the UFSAR, however, portions of the Physical Security and Contingency Plan required a revision. The provision of additional security barrier system components increased the effectiveness of the plant security system. The barrier system does not interact with any safety related major plant system or structure. The design change does not introduce any new equipment that could create an accident that would impact plant operation or equipment. The barrier system does not adversely affect plant shutdown and is not needed to support plant shutdown. The design change does not reduce any margins of safety as defined in the basis for any Technical Specification.

SUBJECT: DCP 95-VAN0004, Revision 0, Sequence 1

DESCRIPTION: This DCP deleted the fossil fired Auxiliary Steam Boiler (ASB), associated support components, and connections to other plant systems. The system was designed to supply the steam required by either unit for a cold start of the main steam system and turbine-generator. The system was not needed because auxiliary steam can be supplied from the main steam supply of the operating unit. The ASB and associated piping were non-safety related and non-seismic.

SAFETY EVALUATION: UFSAR Sections 1.7, 3.2.2, 9.3.2, 9.3.3, 9.5.1, 9.5.4, 9.5.9, 9B, 10.4.7, 10.4.10, 10A.2.4, 11.2.2 and certain drawings referenced in these sections, were revised by this design change to remove the Auxiliary Steam Boiler or reference to one of its ancillaries. Since this represents a change to the tasks described in the UFSAR, the procedures described in the UFSAR were also affected by the change. The ASB was not relied upon in any accident response. Its removal does not increase the

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probability of an occurrence of an accident previously evaluated in the UFSAR. The applicable high energy line break calculations are not affected by the design change. The seismic integrity of the modified components is not adversely impact any safety related hangers or equipment. No modifications were made to any safety related hangers. It does not change, degrade, or prevent actions described or assumed in an accident discussed in the UFSAR. The design change has no direct or indirect adverse affect on any safety equipment. No new types of accidents are introduced by the change. The ASB is not referenced in the Technical Specifications or its basis. All of the safety parameters continue to be met and there were no changes made which could reduce the margin of safety as defined in the basis for any Technical Specifications.

SUBJECT: DCP 95-V2N0019, Revision 0, Sequence 1

DESCRIPTION: The Auxiliary Feedwater (AFW) Pumps can be lined up to take suction from either condensate storage tank (CST). The discharge of the minimum flow of the motor driven AFW pumps is directed to CST 2 while the discharge of the turbine driven pump is to CST 1. This modification provided piping and manual valves to allow the option of directing the minimum flow of the motor driven AFW pumps to CST 1 and the turbine driven pump to CST 2. Also, a minimum flow bypass line was added to allow operation of the motor driven feed water pumps at approximately 265 gpm. This allows the operation of the pumps continuously during startup.

SAFETY EVALUATION: AFW system is described in UFSAR Sections 10.4.9 and Appendix 10A and the system drawings are referenced. These sections and the drawings were revised per the design change. The added piping and valves meet the original material and seismic requirements. The setpoints have been lowered for the minimum flow isolation valve to improve the safety margin. The failure modes and the consequences of an accident for the AFW remain the same as before the design changes. No new failure modes are introduced by the design changes. The modifications do not reduce the reliability of the AFW system. There is no change to Technical Specifications. The modifications has no effect on the margin of safety as defined in the basis for the Technical Specifications.

SUBJECT: DCP 95-VAN0030, Revision 0, Sequence 1

DESCRIPTION: The diesel generator voltage regulators were equipped with minimum/maximum excitation limiters. Only the minimum excitation portion of the device was being used. This device limited field excitation current in the parallel and unit modes. Several diesel generator events attributed to faulty operation of the excitation limiter. The design change deleted the excitation limiter from the diesel generator voltage regulator systems. The function of the excitation limiter can be manually duplicated by the operator via monitoring the generator output and controlling field current with the voltage control switch (raise-lower switch).

SAFETY EVALUATION: The excitation limiters are the initiating devices for the "Low Excitation" remote alarms, ALB35E04 and ALB38E04, and local alarms 24-1 at the respective engine control panels. UFSAR Table 8.3.1-1 identifies "Low Excitation" as an annunciator alarm point. This section was revised per the design change. The operation of the diesel generator continues to be within the administrative limits established in existing plant procedures. Removal of the excitation limiter does not contribute to, nor mitigate, the consequences of an accident previously evaluated in the UFSAR. Administrative controls are in place to preclude operating the diesel in a manner that would result in automatic compensation by the excitation limiter. With these constraints in place, the generator output will

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be maintained within the designed limits. Therefore, the activity does not reduce the margin of safety as defined in the basis for any Technical Specification.

SUBJECT: DCP 95-VAN0046, Revision 0, Sequence 1

DESCRIPTION: The design change relocated all Atmospheric Relief Valve (ARV) tailpipe temperature elements, 1/2TE-3000, 1/2TE-3010, 1/2TE-3020, and 1/2TE-3030, to a distance of approximately ten to twenty five feet from the valve. This change allows any radiant heat from the valve to dissipate, thereby giving a true indication of the temperature inside the pipe.

SAFETY EVALUATION: The system drawing referenced in UFSAR Section 10.3.2 was revised to show relocation of TE-3000 and TE-3030 to the other side of the drain line. The temperature elements are non-IE and nonsafety related. They are located in a category I structure (MSIV area) and were installed to category I seismic requirements. The temperature elements are for alarm and monitoring only, for use by the operators to evaluate ARV leakage. The ARV exhaust pipe temperature elements are not mentioned in the Technical Specifications, nor is the monitoring of the ARV exhaust pipe temperature for leak detection.

SUBJECT: DCP 95-VIN0049, Revision 0, Sequence 1

DESCRIPTION: Generic Letter 95-07 (Pressure Locking and Thermal Binding of Safety-Related Power-Operated Gate Valves) requested licensees to review their power-operated gate valves and determine if they were susceptible to pressure locking or thermal binding. Valves 1HV-8811A/B, "RHR Containment Sump Suction Train A/B" and 1HV-9002A/B, "CSS Containment Sump Isolation Train A/B" were modified by drilling a hole with a preferred 1/8" diameter but acceptable up to a 1/4" diameter hole. This modification was performed on the containment side of the valve disc allowing the pressure inside the bonnet to communicate with the containment side pipe system. This prevents build-up of pressure in the valve bonnet that could lead to pressure locking. The hole has no adverse affect on the seating surface of the valves, which are normally closed.

SAFETY EVALUATION: Residual Heat Removal and Containment Spray system drawings referenced in UFSAR Sections 5.4.7 and 6.2.2 were revised by adding a note that a vent hole has been drilled on the containment side of the valve disc for valves 1HV-8811A/B and 1HV-9002A/B. UFSAR Table 6.2.4-1 and 17 (Containment/Penetration/Isolation Valve Information) and table 6.3.2-3, (Motor-Operated Isolation Valves in the Emergency Core Cooling System) were revised to indicate that valves 1HV-8811A/B and 1HV-9002A/B have been modified to add a bonnet vent to Containment Building side of disc. The design change does not adversely affect the design, material and the system performance. The activity does not change, degrade or prevent actions described or assumed in an accident discussed in the UFSAR. No new interface points were added by the design change that would affect operation of the safety related equipment. There were no changes to any Technical Specification as a result of this modification, nor the modification affected other systems that are described in the Technical Specifications. Therefore, the margin of safety as defined in the bases for any Technical Specification, including the bases to sections 3/4.4.1, 3/4.4.2, 3/4.5, and 3/4.6 is not reduced.

SUBJECT: DCP 95-V2N0050, Revision 0, Sequence 1

DESCRIPTION: Generic Letter 95-07 (Pressure Locking and Thermal Binding of Safety-Related

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Power-Operated Gate Valves) requested licensees to review their power-operated gate valves and determine if they were susceptible to pressure locking or thermal binding. Valves 2HV-8811A/B, "RHR Containment Sump Suction Train A/B" and 2HV-9002A/B, "CSS Containment Sump Isolation Train A/B" were modified by drilling a hole with a preferred 1/8" diameter but acceptable up to a 1/4" diameter hole. This modification was performed on the containment side of the valve disc allowing the pressure inside the bonnet to communicate with the containment side pipe system. This prevents build-up of pressure in the valve bonnet that could lead to pressure locking. The hole has no adverse affect on the seating surface of the valves, which are normally closed.

SAFETY EVALUATION: Residual Heat Removal and Containment Spray system drawings referenced in UFSAR Sections 5.4.7 and 6.2.2 were revised by adding a note that a vent hole has been drilled on the containment side of the valve disc for valves 2HV-8811A/B and 2HV-9002A/B. UFSAR Table 6.2.4-1 (Containment/Penetration/Isolation Valve Information) and table 6.3.2- (Motor-Operated Isolation Valves in the Emergency Core Cooling System) were revised to indicate that valves 2HV-8811A/B and 2HV-9002A/B have been modified to add a bonnet vent to Containment Building side of disc. The design change does not adversely affect the design, material and the system performance. The activity does not change, degrade or prevent actions described or assumed in an accident discussed in the UFSAR. No new interface points were added by the design change that would affect operation of the safety related equipment. There were no changes to any Technical Specification as a result of this modification, nor the modification affected other systems that are described in the Technical Specifications. Therefore, the margin of safety as defined in the bases for any Technical Specification, including the bases to sections 3/4.4.1, 3/4.4.2, 3/4.5, and 3/4.6 is not reduced.

SUBJECT: DCP 95-V2N0055, Revision 0, Sequence 1

DESCRIPTION: In order to ensure availability of the Auxiliary Feedwater Turbine-Driven pump in the event leaks ever occur on the lengthy run of carbon steel pipe, the design change added an alternate drain path to atmosphere, which allows isolation of the carbon steel section of lines 2-1301-101-1" and 288-1" to allow repairs/replacements to be made on the piping. In addition, the DCP eliminated/replaced certain vent and drain valves.

SAFETY EVALUATION: The system drawings referenced in UFSAR Sections 10.4.1 and 10.4.9 were revised per the changes in this design package. The material of the affected lines, vent and drain valves, the types of connections, and addition of the alternate drain path have no effect on any initiating event assumed for the accidents evaluated in the UFSAR. The design change enhances the reliability of the Turbine-Driven Auxiliary Feedwater pump (TDAFP) because the pipe is less likely to leak or rupture due to erosive wear inside the piping. The new piping in the Auxiliary Feedwater pumphouse is seismically supported. No new types of accidents are created by this design change. This change does not reduce the margin of safety because the margin of safety for the affected system/equipment is not defined in the basis for any Technical Specifications.

SUBJECT: DCP 95-V2N0073, Revision 0, Sequence 1

DESCRIPTION: The design change eliminated the Gross Failed Fuel Detector (GFFD), (2-1102-P5 GFD), and its associated components from the permanent plant design. The GFFD was installed as a means of rapidly determining fuel cladding failures by monitoring the delayed neutrons in the RCS. However, it was not proven to be reliable and was difficult to maintain. The use of RE-48000 and the

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Technical Specifications for RCS activity levels is adequate for monitoring for possible fuel cladding failures.

SAFETY EVALUATION: The GFFD is described in several locations in the UFSAR. As a result of this DCP, UFSAR Sections 14.2.8.1.32.D.2, (ACCW Preoperational Test), 9.2.8.2.1, (General Description), Table 3.9.B.3-9, (BOP Active Valves), and UFSAR Section 9.3.2.2.1, (System Description) were revised. A general equipment layout drawing referenced in Section 9.1.5, required a revision per the DCP. UFSAR sections 9.8.8, 9A, 14.2.8 and tables 3.2.2-1, 9.2.-1, 14.2.1-2, 16.3-4, were revised to indicate the elimination of the GFFD from Unit 1 and any associated changes. Also, UFSAR Sections 14.2.8.1.93 (Nuclear Sampling System Preoperational Testing) and 14.2.8.2.59 (Gross Failed Fuel Detector Test) were revised per the DCP. The GFFD is not taken credit for any of the accidents discussed in Chapter 15. It was installed to be used, along with other devices and test methods to identify possible fuel cladding failures. Radiation monitor RE-48000, located in the CVCS Letdown line and testing conducted as part of Technical Specification 3/4.4.8 also provides indication of fuel cladding failure. The use of RE-48000 and the Technical Specifications for RCS activity levels is adequate for monitoring for possible fuel cladding failures. Since deletion of the GFFD does not impact operation of other equipment important to safety, there is no increase in the possibility of a malfunction of equipment important to safety of a different type than any previously evaluated in the UFSAR. Therefore, there is no decrease in the effectiveness of monitoring for fuel cladding failures. As a result, the margin of safety as defined in the Technical Specification is not reduced by this change.

SUBJECT: DCP 96-VIN0002, Revision 0, Sequence 1

DESCRIPTION: Generic Letter 95-07 (Pressure Locking and Thermal Binding of Safety-Related Power-Operated Gate Valves) requested licensees to review their power-operated gate valves and determine if they were susceptible to pressure locking or thermal binding. The results of this review indicated that valves 1HV-8802A/B (Safety Injection System, Train A & B) may be susceptible to pressure locking but thermal binding is not a concern. These valves were modified by drilling a small hole (1/8" to 1/4" diameter) in the containment side of the valve disc. The hole acts as a vent and allows the pressure inside the bonnet and between the valve discs to communicate with the containment side piping system. This prevents the pressure in the valve bonnet from being higher than the line pressure, thereby preventing pressure locking of the valve.

SAFETY EVALUATION: The system drawing for Safety Injection system referenced in UFSAR section 6.3.2. was revised by adding a note that a vent hole has been drilled on the containment side of the valve disc for valves 1HV-8802A/B. UFSAR Table 6.2.4-1 (Containment Penetration/Isolation Valve Information) and table 6.3.2-3, (Motor-Operated Isolation Valves in the Emergency Core Cooling System) were also revised per the modification. Valves 1HV-8802A/B are normally in the closed position. They provide isolation of any RCS fluid that may leak past the downstream check valves, and also prevent the SI pumps from injecting into the RCS when the RCS pressure is lower than the pump discharge pressure. The design change does not adversely affect the design, material or the system performance. It ensures that the valves open upon the appropriate signal to provide for hot leg injection to the RCS from the safety injection pumps. The containment isolation function is not adversely affected. The seismic requirements for the valves or the associated systems are not adversely affected. No new equipment malfunctions are created by this modification. The design change does not reduce the margin of safety as defined in the bases for any Technical Specification, including the bases to sections 3/4.5, 3/4.6, and 3/4.8.4.

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SUBJECT: DCP 96-V2N0003, Revision 0, Sequence 1

DESCRIPTION: Generic Letter 95-07 (Pressure Locking and Thermal Binding of Safety-Related Power-Operated Gate Valves) requested licensees to review their power-operated gate valves and determine if they were susceptible to pressure locking or thermal binding. The results of this review indicated that valves 2HV-8802A/B (Safety Injection System, Train A & B) may be susceptible to pressure locking but thermal binding is not a concern. These valves were modified by drilling a small hole (1/8" to 1/4" diameter) in the containment side of the valve disc. The hole acts as a vent and allows the pressure inside the bonnet and between the valve discs to communicate with the containment side piping system. This prevents the pressure in the valve bonnet from being higher than the line pressure, thereby preventing pressure locking of the valve.

SAFETY EVALUATION: The system drawing for Safety Injection system referenced in UFSAR section 6.3.2. was revised by adding a note that a vent hole has been drilled on the containment side of the valve disc for valves 2HV-8802A/B. UFSAR Table 6.2.4-1 (Containment Penetration/Isolation Valve Information) and table 6.3.2-3, (Motor-Operated Isolation Valves in the Emergency Core Cooling System) were also revised per the modification. Valves HV-8802A/B are normally in the closed position. They provide isolation of any RCS fluid that may leak past the downstream check valves, and also prevent the SI pumps from injecting into the RCS when the RCS pressure is lower than the pump discharge pressure. The design change does not adversely affect the design, material or the system performance. It ensures that the valves open upon the appropriate signal to provide for hot leg injection to the RCS from the safety injection pumps. The containment isolation function is not adversely affected. The seismic requirements for the valves or the associated systems are not adversely affected. No new equipment malfunctions are created by this modification. The design change does not reduce the margin of safety as defined in the bases for any Technical Specification, including the bases to sections 3/4.5, 3/4.6, and 3/4.8.4.

SUBJECT: DCP 96-VAN0004, Revision 0, Sequence 1

DESCRIPTION: This DCP allows the Spent Fuel Cask Bridge Crane (A-2109-R4-001) to bypass the zone limit switch and move to the west wall of the auxiliary building when carrying an allowable load greater than 15 tons. This is accomplished by using a GE two-position selector switch mounted in the Utility Cabinet on the crane. The selector switch is keyed and non-safety.

SAFETY EVALUATION: A drawing (Spent Fuel Cask Bridge Crane Clearance and Hook Travel Envelope Plan View), referenced in UFSAR Section 9.1.5, and UFSAR section 9.1.5.2.2.4 (Safety Limit Devices) were revised per the design changes. The crane is a Type 1 single-failure-proof crane. Cask handling over the spent fuel pool or fuel pit is prevented by interlocks, which are not affected by the design change. The selector switch added by this design change serves no safety related function, and is not assumed to function in any accidents that have been evaluated in the UFSAR. This design does not create the possibility of a malfunction of equipment important to safety of a different type than any previously evaluated in the UFSAR. The margin of safety as defined by the bases of the Technical Specifications including the basis of section 3/4.7 (Plant Systems) and section 3/4.9 (Refueling Operations) is not decreased.

SUBJECT: DCP 96-V1N0007, Revision x, Sequence x

DESCRIPTION: In order to preclude water hammer concerns, as part of the several design

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changes performed on the NSCW system, this design change replaced the affected NSCW pump discharge line spool piece, added "tie-back" supports between each of the NSCW pumps and the 4" bypass line, and strengthened three existing supports for each NSCW train. In addition, two specific instrument root valves were removed and the line cut and capped. These valves are no longer needed, and their removal eliminated a high stress point.

SAFETY EVALUATION: The NSCW system is discussed in UFSAR section 9.2.1, and the system drawings are referenced. The drawings were revised to show deletion of the valves. UFSAR sections 1.9.142 and 3.8.4.5 were revised to clarify that Vogtle may use American Concrete Institute (ACI) 349 including Appendix B, with the qualifications given in Regulatory Guide 1.142. The NSCW system helps to mitigate the effects of the accidents described in the UFSAR, including those in Chapter 15. These changes will in no way increase the probability of an occurrence of an accident previously evaluated in the UFSAR. These changes have no impact on the NSCW function, operation, or system flows. The NSCW Failure Mode and Effects Analysis is not changed by this DCP. The changes meet the appropriate codes and criteria. The safety and seismic class of the system is maintained. No new system interactions are created. The margin of safety as defined in the basis for any Technical Specification, including 3/4.7.4 is not reduced.

SUBJECT: DCP 96-VAN0016, Revision 0, Sequence 1

DESCRIPTION: The core exit thermocouple monitoring system consists of two redundant independent trains that monitor 50 of the core exit thermocouples (each train monitoring 25). Moisture was observed above the thermocouple seal block on 1TE-10041. This design change provides the design to cut the thermocouple sheath and seal it with a Swagelok cap. The capping design provided in this DCP is applicable to any incore thermocouple on both Unit 1 and Unit 2.

SAFETY EVALUATION: UFSAR Section 4A was revised to clarify that invalid thermocouples are monitored but not used in calculations such as core subcooling. The design change has no impact on the ability of the reactor vessel integrated head assembly to perform its power generation and safety design functions. Severing the thermocouple will not have any adverse impact on the reference junction box, or the Plant Safety Monitoring System (PSMS) Remote Processing Units. This design change maintains consistency with the bases for Tech. Specs. 3.3.3.5 (Remote shutdown) and 3.3.3.6 (accident monitoring). In addition, administrative controls section 6.7.4.e requires a program that ensures the capability to monitor plant variables post accident. This design change does not modify the processes in place to meet the program requirements.

SUBJECT: DCP 96-VAN0034, Revision 0, Sequence 1

DESCRIPTION: Two fuses in series were installed in the circuits feeding the lighting inside the personnel and escape air locks on Unit 1 and 2. This provides adequate penetration conductor protection for these circuits. They were installed in both the normal and essential lighting circuits.

SAFETY EVALUATION: New coordination curves were added to UFSAR Section 8.3.1 to show the penetration protection by two fuses instead of two circuit breakers for these lighting circuits. UFSAR table 16.3-5 was revised to list two fuses as protective devices for these lighting circuits instead of two circuit breakers, and to show penetration protection is provided by a fuse and a circuit breaker instead of two circuit breakers. The fuses are added to non-1E, non safety related circuits which have no effect on any

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safety related equipment. This change decreases the probability of a failure of a containment electrical penetration due to conductor overcurrent. Electrical containment penetration protection has been relocated to the Technical Requirements Manual with the new Improved Technical Specifications. This modification does not change the protection requirements associated with containment penetration protection in the TRM.

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SUBJECT: MDC 92-VAM152, Revision 0, Sequence 1

DESCRIPTION: A new heat exchanger was added to allow for the Turbine Plant Sampling System bath to be cooled by the Normal Chilled Water System as an alternative to the use of the dedicated Turbine Plant Sample System Coolers. The dedicated cooling water system experienced many mechanical failures and proved to be unreliable. This change improves reliability of the sampling system by providing a more reliable sample cooling system.

SAFETY EVALUATION: The Turbine Plant Sampling System is discussed in UFSAR Sections 9.3.2.2.3 and 9.3.2.5. These sections describe the use of a chilled water bath to cool samples but does not specifically address the particulars of the chilled water source. The change does add a component to the system. The addition of the heat exchanger increases the reliability of the sampling system. The overall system design function and operation is not impacted by this change. The change does require a revision to a drawing referenced in the UFSAR. The Normal Chilled Water and Turbine Plant Sampling Systems are not addressed in the Plant's Technical Specifications.

SUBJECT: MDC 93-VIM006, Revision 0, Sequence 1

DESCRIPTION: Backflushing of the Steam Generator Blowdown (SGBD) Spent Resin Storage Tank (SRST) resin sluice line with demineralized water was resulting in clogging of the SGBD Spent Resin Sluice Pump Recirculating line and Johnson screens associated with the tank itself requiring maintenance. An isolation valve was added to the pump recirculating line to isolate the during periods of backflushing in the SRST resin sluice line to prevent clogging of the line and associated maintenance activities. The valve is consistent with the design and material classification for piping class LL3 and project class 427.

SAFETY EVALUATION: UFSAR Section 10.4.8 discusses the design function and operation of the Steam Generator Blowdown Processing System. UFSAR Section 11.2.2 discusses the design and operation of the resin sluice pump. Design parameters for this pump are provided in UFSAR Section 11.2.1. The addition of the valve does not impact the description contained in these sections. The change did result in a revision to a plant design drawing that was referenced in Section 10.4.8. The change does not impact system operation. The Resin Sluice Pump is not addressed under the Plant's Technical Specifications. The pumps are not required for support of any safety related equipment.

SUBJECT: MDC 93-VAM016, Revision 0, Sequence 1

DESCRIPTION: A storage building was added inside the protected area under MDC 92-VAM140 to provide a dry storage area for the storage of bulk materials, tools and maintenance equipment. As a result of the addition, the security lighting requirements for the area were changed as well as the lighting needs for personnel safety in the storage facility. As a result, permanent lighting was added to both the interior and exterior of the Maintenance Storage Facility.

SAFETY EVALUATION: On Site Power Systems and Lighting Systems are discussed in UFSAR Sections 8.3 and 9.5.3 respectively. The addition of permanent lighting for this building does not impact the descriptions contained within these UFSAR Sections. UFSAR Section 13.6 references the Physical Security and Contingency Plan. Figure 4-1 of the security Plan required revision to indicate the building and lighting additions. The addition of the Maintenance Storage Building and permanent Lighting does not

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affect any plant Technical Specification nor does it impact the capability of any safety related equipment from performing its intended safety function.

SUBJECT: MDC 93-VAM025, Revision 0, Sequence 1

DESCRIPTION: The Unit 1 New Fuel Elevator has been converted into a New Fuel Elevator Reconstitution Basket. The New Fuel Elevator Reconstitution Basket is designed to rigidly support the repair fuel assembly and accept all removable top nozzle (RTN) tooling required for the job. This basket is designed to sit and ride on the existing spent fuel pool new fuel elevator tracks. The basket is made with a bottom section specifically designed to provide fuel assembly holddown during RTN reconstitution. The track has a mechanical hard stop installed as a safety precaution to ensure a safe shielding depth in the case of a limit switch failure.

SAFETY EVALUATION: UFSAR section 9.1.4.2.4 C discusses the function of the new fuel elevator. The installation of the fuel reconstitution basket on Unit 1 will permit reconstitution of nuclear fuel with the removable top nozzle design. A mechanical hard stop is installed in the elevator track to prevent raising a spent fuel assembly out of the water. UFSAR section 9.1.4.2.4 C is being revised to reflect the new system configuration.

During fuel assembly reconstitution, the affected assembly is located in the fuel elevator at a water depth of 10 feet above the top of the assembly. The UFSAR fuel handling accident offsite dose analysis assumes a water depth of 23 feet for the damaged assembly. Thus, the Fuel Handling Accident (FHA) was reanalyzed with the assumption that damage occurs to the assembly at a water depth of 10 feet during fuel reconstitution.

The analysis was based on the parameters used in the current UFSAR analysis (Table 15.7.4-1), except for the pool scrubbing DF (which corresponds to the amount of iodine that is absorbed in the water), number of affected assemblies, and decay time. The pool scrubbing DF of 200 specified in the UFSAR decreases due to the decrease in water level, from 23 feet to 10 feet. The DF affects the amount of elemental iodine that is released to the environment. The pool scrubbing DF was conservatively assumed to be 90 for a water depth of 10 feet. The decrease in pool scrubbing increases the releases by 80%.

The UFSAR specifies 1.2 damaged assemblies for the FHA. Since only one assembly will be located on the fuel elevator at a time and no additional assemblies can be involved in an accident during the reconstitution, the number of damaged assemblies assumed in the analysis was reduced to one. To further reduce the quantity of radioactivity that is available for release, the decay time is assumed to be delayed from 100 hours (UFSAR FHA analysis) to 240 hours to allow for additional radioactive decay. The combined effect reduces the releases by 50%.

Based on the assumptions above, the activity released for a Fuel Handling Accident during fuel reconstitution operations were calculated to be 90% of the release specified in the UFSAR FHA. Therefore, the UFSAR fuel handling accident analysis bounds the fuel reconstitution FHA analysis.

SUBJECT: MDC 93-VAM057, Revision 0, Sequence 1

DESCRIPTION: The capacity of the originally supplied nitrogen storage system was insufficient, requiring frequent delivery of nitrogen product and the maintenance of a backup tube trailer in the event of

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delays in product delivery. The originally installed 1569 gallon storage tank was replaced with a 6000 gallon tank complete with suitable pressure controls to adapt to the system configuration. The original equipment was abandoned in place. In addition, plant hydrogen requirements are now being met with a portable tube trailer containing gaseous hydrogen and all existing hydrogen storage facility cryogenic equipment was abandoned in place.

SAFETY EVALUATION: UFSAR Sections 2.2.3, 3.2.2 and 9.3.5 discusses the function and operation of the hydrogen and nitrogen systems. The installation of a larger tank will permit operation for longer periods of time before requiring tank refill. This will not impact how the system is operated. The hydrogen requirements are now being supplied via a tube trailer containing gaseous nitrogen. This has eliminated the need for the cryogenic systems that have been a constant source of maintenance activities. Hydrogen supply to plant components is not impacted by this change. UFSAR Sections are being revised to reflect the new system configuration. The nitrogen and hydrogen systems have no safety function and are not addressed in the plant Technical Specifications. No equipment required to function to mitigate an accident will be affected by this change.

SUBJECT: MDC 93-VAM152, Revision 0, Sequence 1

DESCRIPTION: The Unit 1 and Unit 2 Refueling Water Storage Tank valve galleries have high dose rates and contaminated areas within the rooms. The background count rate was such that frisking after entry into the contaminated area had to be conducted outside of the room in a clean area. This was in conflict with ALARA practices. To resolve this configuration, a corridor was added between the Auxiliary Building and the Refueling Water Storage Tank (RWST) valve galleries for both Units 1 and 2. The new structures provide an area external to the valve galleries for frisking and a direct route between the Auxiliary Building and the RWST.

SAFETY EVALUATION: UFSAR Section 13.6 references the Physical Security and Contingency (Security) Plan. Figure 4-1 of the Security Plan required revision to indicate the modifications to the Auxiliary Building doors and the addition of these corridors. UFSAR Section 13.5.1 mentions the fire fighting pre-plans but does not discuss the specifics of the pre-plans. The addition of the corridor between the Auxiliary Building and the RWST required a revision to the fire fighting pre-plans. The operational requirements of the RWST as discussed in Technical Specification 3/4.5.4 are not impacted by this change.

SUBJECT: MDC 94-VAM009, Revision 0, Sequence 1

DESCRIPTION: Quick disconnects were added to the inlet tubing for the passive particulate and iodine channels at the iodine/filter holder assembly (ICFHA) for radiation monitors 1/2RE-12839. This change will allow the ICFHA to be taken off line for cartridge and filter paper removal both quickly and simply and to ensure the system is reassembled as a leak free unit. Previous connections were difficult or impossible to properly tighten upon reinstallation, resulting in unwanted leakage which could result in errors in the analysis.

SAFETY EVALUATION: The function and operation of the Turbine Building Ventilation System is described in UFSAR Section 9.4.4. The discussion makes references to the radiation monitor located in the filtration system. The addition of a connection to the radiation monitor to facilitate installation and removal does not impact the description contained in this section. The change does impact a design drawing

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referenced in this section and required revision of the drawing to properly illustrate the connection. The installation of the quick disconnects does not change the operating characteristics of the monitor.

SUBJECT: MDC 94-VAM012, Revision 0, Sequence 1

DESCRIPTION: The originally installed Sodium Hypochlorite Metering Pumps proved to be unreliable in their installed configuration. Discharge lines had experienced blockages resulting in over-pressurization and failure of the pumps' casings. In order to minimize this problem and to improve operator access to the hypochlorite tank, the pump discharge lines were replaced with larger diameter piping equipped with flushing connections. Piping material was also changed from stainless steel to PCV to prevent the potential attack on metallic components exposed to sodium hypochloride. The pumps were also relocated during this effort to permit easier access to the tank.

SAFETY EVALUATION: UFSAR Section 9.2.4 provides a brief description of the Potable and Sanitary Water Systems. The metering pumps are only minimally addressed in this discussion. Replacement of the pumps' discharge lines with a larger diameter line and changing the material of the line do not impact pump operation as described in this section. The change required a revision to a design drawing that was referenced in this section. The pumps in question do not provide any safety related function nor will they impact any safety related component.

SUBJECT: MDC 94-VAM018, Revision 0, Sequence 1

DESCRIPTION: Temperature Control Valves (TCVs) associated with sample coolers in the Turbine Plant Sampling System were replaced with a newer, more reliable model of control valve. The originally installed TCVs did not function properly to permit accurate control of sample temperatures. In addition, temperature indicators were installed downstream of the new temperature control valves to assist lab personnel in adjusting sample temperatures.

SAFETY EVALUATION: The Turbine Plant Sampling System is described in UFSAR Section 9.3.2. The replacement of the temperature control valves with a more reliable model will not impact the discussion contained within this section. The new TCVs will perform the same function as the original valves. The addition of temperature indicators will enhance system operation by allowing lab personnel to more accurately adjust sample temperatures. The addition will not impact system operation as discussed in this section. Implementation of the changes resulted in a revision to a drawing referenced in the UFSAR Section. The Turbine Plant sampling System is not the topic of any plant Technical Specification.

SUBJECT: MDC 94-VAM027, Revision 0, Sequence 1

DESCRIPTION: The Unit 1 and Unit 2 control room telephones (PABX) were originally powered and fed from separate AT&T Merlin Telephone Systems. The Merlin systems were installed because the AT&T System 85 switch could not support required control room functions. These phone systems had a separate two hour uninterruptable power supply. A new AT&T Definity 3VR telephone switch was recently installed allowing for greater capability of control room communications. The change implemented by this modification deletes all equipment associated with the Merlin phone systems. Digital display type telephones replaced the Merlin Phones in the Unit 1 and Unit 2 Control Rooms.

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SAFETY EVALUATION: UFSAR Section 95.2.2.2 describes the PABX system for the plant but not specifically the Merlin telephone system. The new telephone switch will support programmable telephones for the control room as described in this section. The new telephone switch is powered by an inverter/battery system designed to supply four hours of back-up power which exceeds the 1.5 hour criteria set forth in this section. The plant design drawing which illustrates the riser diagram for the Unit 1 control room telephones has been revised as a result of this change. This drawing is referenced in this UFSAR Section. The change does not impact any Technical Specification requirements regarding emergency communications.

SUBJECT: MDC 94-VIM047, Revision 0, Sequence 1

DESCRIPTION: Differential pressure indicators were added across the polishing filter of the Main Turbine and Steam Generator Feedwater Turbine Lube Oil Conditioners to allow for properly monitoring of the polishing filter effectiveness. Originally, indicators installed on the inlet and outlet of the polishing units were used to determine filter differential pressures. These indicators were not accurate, experienced high failure rates and could not be calibrated.

SAFETY EVALUATION: The addition of differential pressure indicators across the polishing filter of the Main Turbine and Steam Generator Feedwater Pump Turbine Lube Oil Conditioners will not impact the design function or operation of the lube oil systems as described in UFSAR Sections 10.2, Turbine-Generator, and 10.4.7, Condensate and Feedwater System. The change does impact a design drawing referenced in these sections. The design drawing was modified to illustrate the addition of the differential pressure indicators. Addition of the indicators enhance monitoring of the polishing units for effectiveness. The lube oil conditioners are not safety related and do not support any safety related equipment.

SUBJECT: MDC 94-VAM069, Revision 0, Sequence 1

DESCRIPTION: "Break-away" flanges were installed on the pump casing drain line associated with the Spent Resin Storage Tank Sluice Pump. The flanges were added to permit removal of the Spent Resin Pump casing for maintenance activities and inspections without removing the hanger associated with the pump's casing drain line. This reduces the duration of the specific maintenance activity.

SAFETY EVALUATION: UFSAR Section 11.2.2 discusses the design and operation of the resin sluice pump. Design parameters for this pump are provided in UFSAR Section 11.2.1. The addition of the "break-away" flanges does not impact the description contained in these sections. The change did result in a revision to a plant design drawing that was referenced in Section 11.2.1. The change does not impact system operation. The Resin Sluice Pump is not addressed under the plant's Technical Specifications. The pumps are not required for support of any safety related equipment.

SUBJECT: MDC 94-VAM078, Revision 0, Sequence 1

DESCRIPTION: An additional discharge pressure gauge was added on the discharge of all four Centrifugal Charging Pumps for use in the in service testing program. Accurate and consistent readings are essential for pump IST performance monitoring. The existing pressure gauges experienced severe pressure transients during charging pump startups and shutdowns introducing inaccuracies in the readings. The new gauges are isolated during normal operation and are only opened to take data associated with the

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in service testing program. This provides for more reliable gauge operation and reduces the risk of damage due to normal system transients.

SAFETY EVALUATION: The Chemical Volume and Control System is discussed in UFSAR Section 9.3.4. A discussion of the Centrifugal Charging Pumps is contained within this section including a description of major flow paths and capacities. The change implemented by this modification does not impact the discussion in this section. The design drawing referenced in this section has been revised to reflect installation of an additional gauge on the pump discharge lines. System operation is not impacted by this change.

SUBJECT: MDC 94-V1M088, Revision 0, Sequence 1

DESCRIPTION: The automatic actuation of the Technical Support Center (TSC) halon fire suppression system has been deleted. Manual actuation of the fire suppression system remains functional. The change allows the smoke detection feature to still function in the TSC and provide an input into the Control Room Fire Alarm Console but manual initiation will be initiated only if required.

SAFETY EVALUATION: UFSAR Section 9.5.1 addresses the Fire Protection Program. A discussion on the halon system for the Technical Support Center is discussed in this section under 9.5.1.2.2.11. The section has been revised to reflect that only manual actuation of the TSC Halon System is available. Plant inspection and test procedures and fire pre-plans have been changed to reflect the current configuration of the TSC Halon System. There are no Technical Specification requirements associated with this system.

SUBJECT: MDC 94-VAM093, Revision 0, Sequence 1

DESCRIPTION: Cambridge hydrazine monitors and cells were originally installed as a part of the Turbine Plant Sampling System (TPSS) to continuously monitor hydrazine residual. This data is necessary for controlling the water quality of the secondary systems. The Cambridge hydrazine cells experienced failures without warning leading to downtime and overall unreliability. The monitors and cells were replaced with Polymetron Series 50 analyzers and cells which are capable of performing the same functions at a higher degree of reliability.

SAFETY EVALUATION: UFSAR Section describes the process and Post Accident Sampling Systems. The Turbine Plant Sampling System is included in this section. The section describes the purpose of the sampling system and discusses several modes of operation of the system. The replacement monitors and cells have the same capabilities of the originally installed equipment. System operation is not impacted by this change. The change did require revision to a drawing that was referenced in this section. The TPSS is not the topic of any plant Technical Specification.

SUBJECT: MDC 94-V2M097, Revision 0, Sequence 1

DESCRIPTION: Backflushing of the Steam Generator Blowdown (SGBD) Spent Resin Storage Tank (SRST) resin sluice line with demineralized water was resulting in clogging of the SGBD Spent Resin Sluice Pump recirculating line and Johnson screens associated with the tank itself, requiring maintenance. An isolation valve was added to the pump recirculating line to isolate the tank during periods of

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backflushing in the SRST resin sluice line to prevent clogging of the line and subsequent maintenance activities. The valve is consistent with the design and material classification for piping class LL3 and project class 427.

SAFETY EVALUATION: UFSAR Section 10.4.8 discusses the design function and operation of the Steam Generator Blowdown Processing System. UFSAR Section 11.2.2 discusses the design and operation of the resin sluice pump. Design parameters for this pump are provided in UFSAR Section 11.2.1. The addition of the valve does not impact the description contained in these sections. The change did result in a revision to a plant design drawing that was referenced in Section 10.4.8. The change does not impact system operation. The resin sluice pump is not addressed under the plant Technical Specifications. The pumps are not required for support of any safety related equipment.

SUBJECT: MDC 94-VAM101, Revision 0, Sequence 1

DESCRIPTION: The change involved the addition of "taps" in the Plant Demin. Water System to route the discharge associated with the demineralized water treatment facility through a vender (Ionics) supplied skid in order to increase sodium removal efficiency. The addition will allow increased demineralized water capacity which will improve plant reliability at various operating modes.

SAFETY EVALUATION: Function and operation of the Plant Demineralized Water system is described in UFSAR Section 9.2.3. The section describes components and operating characteristics of the system. The addition of the necessary connections to facilitate the hook-up of a vender supplied skid on the discharge of the existing water treatment facility to increase sodium removal capability does not impact the descriptions provided in this section. The addition did result in the revision to a plant design drawing that was referenced in this section. System operation as described in this section is not impacted. The addition does not impact any plant Technical Specification.

SUBJECT: MDC 94-VAM104, Revision 0, Sequence 1

DESCRIPTION: A Meriam level indicating switch was originally used to control the inlet valve to the Make-up Well Water Storage Tank and thereby control level in the tank. The level switch did not operate accurately or consistently to control the inlet valve. A new level switch was added to provide the level control function associated with the opening and closing of the inlet valve. The original switch (Meriam) was left in place to provide local level indication only.

SAFETY EVALUATION: The Potable and Sanitary Water Systems are described in UFSAR Section 9.2.4. The discussion describes the function and operation of the level switch associated with the Make-up Well Water Storage Tank. The additional level controlling switch meets the design function as specified in this section. System operation is not impacted. The addition of the switch has resulted in a revision to a plant design drawing referenced in this section. The addition of the switch does not impact any plant technical Specification.

SUBJECT: MDC 94-VIM108, Revision 0, Sequence 1

DESCRIPTION: A three hour rated fire door was installed on the Level B Mezzanine Chase in the Auxiliary Building between Unit 1 and Unit 2. The fire door replaces the permanent three hour rated and

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airtight plaster partition. Addition of the door will permit access from Unit 1 to Unit 2 in lieu of removing floor plugs on Level A which previously had to be pulled to gain access to these areas. This additional access will enhance the performance of fire protection surveillances.

SAFETY EVALUATION: The Fire Protection Program is discussed in UFSAR Section 9.5.1. This section sets forth the requirements of the fire protection plan. The replacement of a permanent fixture with a fire door of the same rating will not impact the discussion addressing fire protection features. The door will perform the same function as the previously installed partition. The Fire Door Inspection Surveillance has been updated to reflect this addition. The Fire Protection Programs are not discussed in the plant Technical Specifications.

SUBJECT: MDC 94-VAM120, Revision 0, Sequence 1

DESCRIPTION: The original response of the Waste Gas Recombiners (WGR) to a high temperature condition in the catalyst bed was to limit (terminate) the oxygen addition to reduce the amount of heat generated in the recombiner but to continue the waste gas flow. The logic has been changed such that an overtemperature condition will not only terminate the oxygen addition, but will also terminate the VCT purge flow.

SAFETY EVALUATION: The design function and operation of the Gaseous Waste Processing Systems (GWPS) are addressed in UFSAR Section 11.3. Section 11.3.2.2.2 lists the automatic responses of the Waste Gas Recombiners to various operating parameters. The change of the response to a high temperature as described above has been included in this list. Technical Specification requirements concerning explosive gas monitoring instrumentation, explosive gas mixtures and radioactive gas content in the Waste Gas System are not impacted by this change.

SUBJECT: MDC 94-VAM121, Revision 0, Sequence 1

DESCRIPTION: Instrument calibration and instrument line flushing requires a clean source of water (demineralized water). A convenient source was not readily available in the Unit 2 Turbine Building which meant that long runs of hose had to be used to perform these operations. The modification added several connections to the demineralized water distribution header to facilitate these operations. Each connection has a shut off valve so that the supply can be secured when not in use.

SAFETY EVALUATION: UFSAR Section 9.2.3 describes the function and operation of the Demineralized Makeup Water System. The addition of the connections to the demineralized water system does not impact this discussion. The additional supplies will be used when necessary to support instrument flushing and calibration operations and will not impact overall system operation. The change did require a revision to a design drawing that was referenced in this section. The Demineralized Water Makeup System is not the topic of any plant Technical Specification.

SUBJECT: MDC 94-VAM142, Revision 0, Sequence 1

DESCRIPTION: The Waste Gas Recombiner outlet HI Hydrogen alarm setpoint was changed from 0.25% to 0.5%. This was necessary due to the buildup of inert gases (primarily Helium) in the Waste

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Gas System. The outlet gas analyzer controls the addition of Oxygen to the system and will operate more reliably at the higher setpoint.

SAFETY EVALUATION: The design function and operation of the Gaseous Waste Processing Systems (GWPS) are addressed in UFSAR Section 11.3. Section 11.3.2.2.2 lists the automatic responses of the Waste Gas Recombiners to various operating parameters. The change to the alarm setpoint from 0.25% to 0.5% as described above has been included in this list. Technical Specification requirements concerning explosive gas monitoring instrumentation, explosive gas mixtures and radioactive gas content in the Waste Gas System is not impacted by this change.

SUBJECT: MDC 94-V2M147, Revision 0, Sequence 1

DESCRIPTION: Oxygen ingress in PWR steam generators can increase the electrochemical potential (ECP) of tubing materials thereby increasing the tendency of IGA/SCC in crevices. To support future installation of the ECP monitoring equipment, several connections have been added to the condensate and feedwater systems. The connections make provisions for a closed loop system to prevent loss of the sample from the condensate and feedwater system.

SAFETY EVALUATION: The Condensate and Feedwater System is described in UFSAR Section 10.4.7. the addition of the connections to the feedwater system to support installation of an ECP monitoring system does not impact the discussion contained within the description but did result in a revision of a plant design drawing to illustrate the new connections. The change does not affect the method by which the condensate and feedwater system is operated. The addition of the connections does not impact any feedwater system function as defined in the Technical Specifications.

SUBJECT: MDC 94-V2M148, 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 level at a desirable value.

SAFETY EVALUATION: UFSAR Section 10.4.7, Condensate and Feedwater System, discusses the operation of the steam generator feed pump turbine lube oil system. The addition of a bypass line and valve will provide a means to control vacuum to an acceptable level to ensure the proper operation of the lube oil systems as defined in this section. The function of the lube oil system was not impacted. The operating procedure has been revised to reflect the new means of controlling vacuum. The change required a revision to a plant design drawing referenced in this UFSAR Section. The addition of the bypass line and valve does not impact any function of the feedwater system as defined in the Technical Specifications.

SUBJECT: MDC 95-VAM008, Revision 0, Sequence 1

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DESCRIPTION: The originally supplied pneumatic load controls on the rotary service air compressors were replaced with a functionally identical electronic control system. The previous controls used relatively low quality compressor discharge air which had proven to be incompatible with reliable operation of the controls. The new controls provide a much more stable air system pressure and greatly reduce the potential for unnecessary compressor down time.

SAFETY EVALUATION: The Service and Instrument Air Systems are described in UFSAR Section 9.3.1. The discussion does not include the details of the type of control system utilized on the rotary air compressors. The replacement of the controls will not effect the way the system operates or is operated as discussed in this section. Addition of the new control system resulted in the deletion of several mechanical components associated with the old pneumatic control system. This resulted in a revision to a design drawing referenced in the UFSAR section. The portion of the service air system involved in this modification is not the subject of any Technical Specification.

SUBJECT: MDC 95-V2M009, Revision 0, Sequence 1

DESCRIPTION: During the preventative maintenance testing of the Containment Post LOCA Purge Pressurization Valves, the valves are cycled to verify their operation. This required isolating the service air supply to the containment building to prevent air discharges into the containment building during valve operation which could result in airborne contamination problems or personnel safety concerns. To avoid these concerns, a pipe nipple was added downstream of the valves to permit installation of a pipe cap during testing, thereby preventing the release of air into containment during testing.

SAFETY EVALUATION: The Service and Instrument Air Systems are described in UFSAR Section 9.3.1. The discussion does not include sufficient details concerning piping connections. The purpose of this service air supply line is for post-LOCA pressurization and purge of the containment for control of hydrogen gas concentration. The addition of the pipe nipples will not affect this function. The system will be operated as discussed in this section. Implementation of this change resulted in a revision to a design drawing referenced in the UFSAR section. The portion of the service air system involved in this modification is not the subject of any Technical Specification.

SUBJECT: MDC 95-VAM014, Revision 0, Sequence 1

DESCRIPTION: In cooler weather, building temperatures in the areas around the electro-hydraulic (EHC) control skids decreases to the point that portable space heaters were required to maintain fluid temperatures. The space heaters were not effective in maintaining fluid temperatures. To provide the capability of maintaining the main turbine EHC control fluid temperatures within the range recommended by the turbine vendor during periods of reduced ambient temperature, a heating element and associated controls have been installed in place of one of the existing redundant fluid coolers. The control system is designed to regulate the heat input so that the fluid returned to the tank is within the desired range.

SAFETY EVALUATION: The Main Turbine EHC system is generally discussed in UFSAR Section 10.2. The level of detail provided in this discussion is of such a nature that the changes being made will not necessitate further discussion. The change did result in the revision to a design drawing that was referenced in this section. The Turbine Plant Closed Cooling Water System (TPCCW) is discussed in UFSAR Section 9.2.10. TPCCW supplies the cooling medium for the EHC heat exchangers. The change implemented under this modification affects the cooling to one of the redundant fluid coolers associated

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with the Main Turbine EHC System. This will not impact overall system operation as described in this section. The change did result in the revision to a design drawing that was referenced in this section. The Main Turbine EHC hydraulic power unit and the TPCCW system are not the subject of any Technical Specification.

SUBJECT: MDC 95-VAM029, Revision 0, Sequence 1

DESCRIPTION: The change involved converting the service building camera to utilize the PTL (Pan/Tilt/Zoom) function. The change also rennumbers this camera and a camera located at Gate 4. The original camera was susceptible to interference from the sun at varying times requiring security compensation. The Gate 4 camera meets the CCTV assessment requirements from fixed cameras and will replace the service building camera for this function. This camera is not susceptible to interference from the sun.

SAFETY EVALUATION: UFSAR Section 13.6 references the site physical security plan. Changing the numbering scheme and function of the associated cameras required a revision to the security plan. The change represented by this modification does not change the requirements of the security plan. The security system is not described in the Technical specifications.

SUBJECT: MDC 95-VIM041, Revision 0, Sequence 1

DESCRIPTION: To provide exhaust pressure indication with a range consistent with the expected exhaust pressures during turbine operation, the existing vendor supplied 0-15 psig exhaust pressure gauge was replaced with an identical gauge having a 0-60 psig range. A previously installed pressure control valve located in the sensing line to this gauge has also been deleted. An additional device used to monitor turbine exhaust consisted of a small spring loaded valve (Sentinel valve) which was designed to open at 22 psig to indicate excessive pressure. This valve had a history of briefly opening during turbine startup spraying water/steam into the room. A failure of this valve in the open position with the turbine in operation would fill the room with steam and prohibit access. The "C" Train Shutdown Panel is located in this room. Since the exhaust is vented directly to atmosphere with no restrictions, it was determined that this valve was not necessary and it was deleted from the system. The final portion of the change involved the replacement of the 25 micron oil filter with a 3.8 micron element and sample port. This will improve the quality of the oil.

SAFETY EVALUATION: The Turbine Building Auxiliary Feedwater Pump turbine is described in UFSAR Sections 7.3.7, 10.4.9 and 10A. The range of the exhaust pressure indicator and the details of oil filtration are not provided in the UFSAR. The equipment being modified is depicted on a plant design drawing that is referenced in this UFSAR. The drawing has been revised to depict the changes implemented under this modification. The modification does not impact operation of the Auxiliary Feedwater System. The operability of the Turbine Driven Auxiliary Feedwater Pump turbine as defined in the Technical specifications is not impacted by this change.

SUBJECT: MDC 95-VAM045, Revision 0, Sequence 1

DESCRIPTION: The EHC Hydraulic Power Unit fluid reservoir is vented to atmosphere through a filter/desiccant breather. The breather contains an activated alumina desiccant to remove moisture that is

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drawn from the local atmosphere into the reservoir. The local humidity is such that the desiccant required frequent change out. To alleviate this, provisions were made to establish a small continuous flow of dry instrument air through the EHC Hydraulic Power Unit breather. This helps to prolong the time required between desiccant regeneration and ensures a moisture free environment in the reservoir air space. The air is admitted through a regulator and needle valve selected to maintain a flow of approximately 1/2 SCFM.

SAFETY EVALUATION: The Main Turbine EHC system is generally discussed in UFSAR Section 10.2. The level of detail provided in this discussion is of such a nature that the changes being made will not necessitate further discussion. The change did result in the revision to a design drawing that was referenced in this section. The Instrument Air System is discussed in UFSAR Section 9.3.1. The change implemented under this modification adds a small amount of air flow to the reservoirs associated with the Main Turbine EHC System. This will not impact overall system operation as described in this section. The change did result in the revision to a design drawing that was referenced in this section. The Main Turbine EHC hydraulic power unit and the Instrument Air systems are not the subject of any Technical Specification.

SUBJECT: MDC 95-V2M049, Revision 0, Sequence 1

DESCRIPTION: The originally supplied pneumatic load controls on the reciprocating service air compressor was replaced with a functionally identical electronic control system. The previous controls used relatively low quality compressor discharge air which had proven to be incompatible with reliable operation of the controls. The new controls provide a much more stable air system pressure and greatly reduce the potential for unnecessary compressor down time. The capability to perform an auto start on low pressure independent of the MEC controller is also provided by the new electronic control system.

SAFETY EVALUATION: The Service and Instrument Air Systems are described in UFSAR Section 9.3.1. The discussion does not include the details of the type of control system utilized on the reciprocating air compressors. The replacement of the controls will not effect the way the system operates or is operated as discussed in this section. Addition of the new control system resulted in the deletion of several mechanical components associated with the old pneumatic control system. This resulted in a revision to a design drawing referenced in the UFSAR section. The portion of the service air system involved in this modification is not the subject of any Technical Specification.

SUBJECT: MDC 95-V1M062, Revision 0, Sequence 1

DESCRIPTION: The originally supplied pneumatic load controls on the reciprocating service air compressor was replaced with a functionally identical electronic control system. The previous controls used relatively low quality compressor discharge air which had proven to be incompatible with reliable operation of the controls. The new controls provide a much more stable air system pressure and greatly reduce the potential for unnecessary compressor down time. The capability to perform an auto start on low pressure independent of the MEC controller is also provided by the new electronic control system. Additionally, the auto start capability was programmed to function for the electronic controllers previously installed on the rotary air compressors. The low air pressure annunciator setpoint was increased to 90 psig to enable the annunciator to provide a more useful indicator of air system trouble. The final change involved the deletion of the interlock between the swing compressor and associated discharge valves.

SAFETY EVALUATION: The Service and Instrument Air Systems are described in UFSAR Section 9.3.1. The discussion does not include the details of the type of control system utilized on the reciprocating

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air compressors. The replacement of the controls, the addition of the auto start capability, the deletion of the swing compressor interlocks and the increase in the annunciator pressure setpoint will not effect the way the system operates or is operated as discussed in this section. Addition of the new control system resulted in the deletion of several mechanical components associated with the old pneumatic control system. This resulted in a revision to a design drawing referenced in the UFSAR section. The portion of the service air system involved in this modification is not the subject of any Technical Specification.

SUBJECT: MDC 95-VAM065, Revision 0, Sequence 1

DESCRIPTION: Routine sampling and analysis for potable water lead content, as required by the State of Georgia EPA, has resulted in a requirement by the State that a lead treatment program be established for the onsite potable water system. In response to this, a phosphate injection skid for injecting into the plant Potable Water System has been installed. This skid will provide appropriate treatment to reduce lead concentrations in the Potable Water System to acceptable levels.

SAFETY EVALUATION: The Potable and Sanitary Water Systems are described in UFSAR Section 9.2.4. The discussion describes the function and operation of various components within the system. The section discusses various aspects of water treatment but will require revision to reflect the addition of the phosphate injection skid. The additional treatment measures will still meet the design function as specified in this section. System operation is not impacted. The addition of the phosphate injection skid has resulted in a revision to a plant design drawing referenced in this section. The addition of the skid does not impact any plant technical Specification.

SUBJECT: MDC 95-VAM066, Revision 0, Sequence 1

DESCRIPTION: The Nitrogen Gas System supplies a cover gas to the accumulators to maintain accumulator gas pressure between 617 psig and 678 psig. This is accomplished through a series of pressure control valves. The pressure control valve on the Nitrogen High Pressure Control Manifold (A-PCV-9714/9715) was previously set to control pressure to the distribution header at 650 psig. The pressure control valve (1/2-PCV-8893) which sets the pressure to be supplied to the accumulators was also set at 650 psig. This prohibits operation of the accumulators through the entire normal operating pressure spectrum (617 to 678 psig) set forth in the Technical Specifications and operating procedures. The control settings for these pressure control valves have been changed from 650 psig to 700 psig for the Nitrogen High Pressure Distribution Manifold and 675 psig for the accumulator pressure control manifold.

SAFETY EVALUATION: UFSAR Section 6.3 discusses the design, function and operation of the Emergency Core Cooling Systems. The accumulators are addressed as a part of this discussion. The description references the control of accumulator pressure by use of a cover gas (Nitrogen) set to maintain accumulator pressure between 617 and 678 psig. The change addressed by this evaluation raises the pressure controlling setpoint from 650 psig to 675 psig which is consistent with the specified pressure range. The nature of the change is such (setpoint adjustment only) that there is no other impact on the system's ability to perform as described in the section. UFSAR Section 9.3.5 describes the function and operation of the Nitrogen Gas System. The discussion includes several references to the pressure at which the high pressure control stations supply to house lines. The pressure provided in this section indicates that the manifold pressure is set at 600 psig. The increase in the pressure control setting for the high pressure supply manifold from the current setting of 650 psig to 700 psig will require a revision to these references.

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This change does not affect the actual system operation. The Nitrogen Gas System does not perform a safety function and is not addressed in the Technical Specifications or the Environmental Protection Plan. The accumulators are included as a part of Technical Specification 3/4.5.1. The Specification sets forth the requirements for accumulator operability in reference to pressure and several other key parameters. The Specification requires that accumulator pressure be maintained between 617 and 678 psig. The change associated with this evaluation will not affect the accumulator operability requirements set forth in this Specification and will therefore not require a change to this document.

SUBJECT: MDC 96-VAM003, Revision 0, Sequence 1

DESCRIPTION: An additional pressure switch input has been added to the existing steam seal pressure annunciator (ALB20A02) to indicate when pressure at the outlet of the bypass feed valve is excessive. The additional information provided to the control room operators by the new input is expected to prevent damage to PSV-6046 resulting from excessive pressure when using the bypass feed valve to admit main steam to the steam seal header.

SAFETY EVALUATION: The annunciator window being modified is specifically mentioned in UFSAR Section 10.2.5. The function described in Section 10.2.5 will continue to be performed, in addition to the new function being added. Accordingly, a revision of the UFSAR text will not be necessary. The proposed modification will have no effect on the operation or response of the steam seal system. Existing indications on the main control board are sufficient to allow the operators to determine whether the alarm is the result of low steam seal header pressure, as was the case with the old alarm, or high pressure at the new pressure switch. Additionally, the new high pressure condition can only exist when the bypass main steam supply valve is opened, which is normally not done except in an outage. The change required a revision to a plant drawing which is referenced in UFSAR section 10.4.3.

SUBJECT: MDC 96-VAM010, Revision 0, Sequence 1

DESCRIPTION: The purpose of this design modification is two fold. During winter months, cold air coming into the Turbine Building (East and West ends) around the pipe chase causes problems with the EHC skid and the steam pressure transmitter. Checker plate covers had been added to this area to reduce the amount of air that can enter the building through this chase. The addition of the plating will also provide for safe access to the N16 monitors that were added on the steam lines.

SAFETY EVALUATION: UFSAR Appendix 3.F.4.4 mentions the Main Steam Tunnel and Turbine Building interface. This section does not describe or depict the configuration of the tunnel inside the Turbine Building. The addition of the checker plate covers at the tunnel opening in the Turbine Building does change the vent path provided for Main Steam line breaks and therefore represents a change to the Pressure-Temperature Analysis as addressed in UFSAR Appendix 3F. The analysis performed on the addition indicates that the change will not impact any previous calculations involving the vent path calculations. The change does not impact plant Technical specification.

SUBJECT: MDC 96-VIM012, Revision 0, Sequence 1

DESCRIPTION: Valves 1UV-6276 and 1UV-6281 provide a secondary vent path to atmosphere for two drain pots associated with the main steam lines. Previously there was no means of isolating these

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level control valves while the plant is in operation. Manual isolation valves have been added upstream of these valves. These new manual valves will facilitate maintenance activities on these valves during power operation. The manual isolation valves will be locked open for appropriate administrative controls and will be consistent with the 424 project classification utilized in this portion of the Main Steam System.

SAFETY EVALUATION: The change required a revision to a plant design drawing to reflect the addition of these manual isolation valves. This drawing was referenced in UFSAR sections 10.2.2 (Turbine-Generator) and 10.3.2 (Main Steam Supply System). The discussion in these UFSAR sections will not require any revision, because neither the operation nor function of the system will be changed. The new valves will conform to the Piping Materials Classification document and will meet all the design requirements for the referenced Main Steam System lines. The referenced change does not require a change to the Technical Specifications. The modification will provide a means of performing maintenance activities associated with valves 1UV-6276 and 1UV-6281 located on the Main Steam System while the plant is in operation. The change will have no impact on the function or operation of the Main Steam System. This is based on review of Technical Specification 3/4.7 (Plant Systems).

SUBJECT: MDC 96-V2M017, Revision 0, Sequence 1

DESCRIPTION: The piping to the main feed pump turbine (MFPT) lube oil coolers required replacement due to severe tubercule formation. A severe silting problem was also present. The cooling water supply has been changed from TPCW, which is cooling tower water, to TPCCW, which is closed and treated. TPCCW is susceptible to neither silting nor tubercule formation, thereby eliminating both problems, and subsequently greatly reducing the interval between PMs. In addition, the TPCCW system is operating at a lower flow than originally anticipated and therefore the resultant increase in flow will not present a challenge for proper system operation. The existing 4" piping was replaced with 2" piping. The 2" pipe will more than adequately supply the necessary flow and greatly reduce the cost of replacement. The temperature control and bypass valves have also been relocated from Level A to Level 1, in front of the MFPT skid.

SAFETY EVALUATION: Tables 9.2.10-1 and 9.2.11-1 list the heat loads for TPCCW and TPCW respectively. The loading for the SGFT lube oil cooler must be deleted from Table 9.2.11-1 and added to Table 9.2.10-1. The additional flow and heat load to the TPCCW system as a result of this change has been reviewed and determined to be within existing capabilities of the system and therefore will not impact TPCCW system operation as described in this section. The SGFT lube oil coolers are not required for safe-shutdown and do not support any equipment necessary for safe-shutdown. In addition, the lube oil cooling water supply control valve needs to be listed in paragraph (2) of section 9.2.10.2.3. The SGFT lube oil coolers are not mentioned otherwise in the UFSAR. The changes will not impact any plant Technical Specification.

SUBJECT: MDC 96-VAM026, Revision 0, Sequence 1

DESCRIPTION: Vogtle had requested a Technical Specification change involving a ten year fuel oil system pressure test. Part of the proposal involved the Fuel Oil Day Tank Truck Fill Line. These lines provide an alternate method of filling the day tank using a fuel oil truck. Design engineering concluded that these fill lines were not required to support accident conditions and therefore did not require either a pressure or inservice test. The NRC took exception to this and indicated that the lines either remain in the

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testing program or be blanked off. This modification installs a blank plate into each Diesel Generator Day Tank Truck Fill Line at the flanged connection to the day tank.

SAFETY EVALUATION: The UFSAR describes the diesel generator fuel oil day tanks in Section 9.5.4.2.1.3 as having fittings to provide for external tank fill. While the line and fittings will remain, the capability to use these fittings for tank fill will be removed by installing the blank into the fill line. Therefore, external tank fill will no longer be possible without disassembly of the fill line. This line will not be used for filling the day tank and thus will not require pressure testing in accordance with Technical Specification 4.8.1.1.2.j (2).

SUBJECT: MDC 96-VAM027, Revision 0, Sequence 1

DESCRIPTION: After a failure of the elevator motor/generator set, a jib crane was added to the Auxiliary Building central stairwell to remove the generator set. This consisted of a commercial jib crane being installed to the concrete stairwell wall with Hilti Kwik Bolts. Since the crane has a capacity of 4,000 lbs. load limit, the UFSAR Table 9.1.5-2 was revised to add this new crane to the list.

SAFETY EVALUATION: There are no safety related items located in the load path area of the new jib crane, nor are there any safety related items located on levels below the load to be moved.

SUBJECT: MDC 96-V2M028, Revision 0, Sequence 1

DESCRIPTION: Valves 2UV-6276 and 2UV-6281 provide a secondary vent path to atmosphere for two drain pots associated with the main steam lines. Previously there was no means of isolating these level control valves while the plant is in operation. Manual isolation valves have been added upstream of these valves. These new manual valves will facilitate maintenance activities on these valves during power operation. The manual isolation valves will be locked open for appropriate administrative controls and will be consistent with the 424 project classification utilized in this portion of the Main Steam System.

SAFETY EVALUATION: The change required a revision to a plant design drawing to reflect the addition of these manual isolation valves. This drawing was referenced in UFSAR sections 10.2.2 (Turbine-Generator) and 10.3.2 (Main Steam Supply System). The discussion in these UFSAR sections will not require any revision, because neither the operation nor function of the system will be changed. The new valves will conform to the Piping Materials Classification document and will meet all the design requirements for the referenced Main Steam System lines. The referenced change does not require a change to the Technical Specifications. The modification will provide a means of performing maintenance activities associated with valves 2UV-6276 and 2UV-6281 located on the Main Steam System while the plant is in operation. The change will have no impact on the function or operation of the Main Steam System. This is based on review of Technical Specification 3/4.7 (Plant Systems).

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SUBJECT: RER 95-0181

DESCRIPTION: Two doors were removed from the hinges and deleted from the prints. Unit one door V1-2101-L1-105 and Unit 2 door V2-1201-L1-105 were in the Equipment Buildings near the containment personnel air locks. These doors were installed in a particle wall that was not a hazard boundary.

SAFETY EVALUATION: The doors served no real purpose. There were not part of a fire boundary or any other hazard boundary. UFSAR figure 12.3.1-1 was changed to reflect this change.

SUBJECT: RER 95-0282

DESCRIPTION: Nitrogen line 2-2402-016-1" located downstream of valve 2-2402-U4-006 was cut and an end cap welded in place under DCP 93-V2N0070. The symbol used to depict this connection on the P&ID was that of a "screwed cap" versus a "welded cap". The P&ID has been revised to reflect the proper plant configuration. The change does not involve any physical work activity.

SAFETY EVALUATION: The function and operation of the Auxiliary Gas Systems and in particular the Nitrogen Supply system is discussed in UFSAR Section 9.3.5. The change to the drawing does not impact the discussion contained within this section. The drawing that was revised to reflect this configuration is referenced in this section. The Auxiliary Gas Systems are required for normal plant operation and plant startup only and are not required for Safe Shutdown. The Auxiliary Gas Systems are not the topic of any plant Technical Specification.

SUBJECT: RER 96-0042

DESCRIPTION: The Unit 1 Turbine Generator Hydrogen Seal Oil Filters (1-1324-S4-501-F01 & F02) have 1/2" plugs in their covers to support draining the filter canister during filter change out and for filling and venting of the filters after change out. Use of the plugs for venting is difficult and can pose a oil spill hazard since the filters are vented using seal oil pump discharge as a supply. Under this modification, valves were installed in place of the threaded plug to provide a controlled method of draining the referenced filters. The valve and piping assemblies meet all the original design requirements of the Hydrogen Seal Oil System and skid manufacturer.

SAFETY EVALUATION: While the referenced valve addition to the Hydrogen Seal Oil Filters will meet the design and construction specifications for the system, the valve addition will require a change to P&ID 1X4DB191, which is referenced in UFSAR Section 10.2.2-Turbine Generator Description. This therefore changes the plant as described or referenced in the UFSAR. The referenced valve addition will not effect any safety related system or component. The Hydrogen Seal Oil system is not a safety related system, nor can its failure effect any safety related system or component not previously analyzed. This is based upon a review of Technical Specification Section 3/4.7 "Plant Systems." The referenced valve addition will not change any design basis for possible spillage or containment of seal oil in the environmental protection plan for the plant.

SUBJECT: RER 96-0049

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DESCRIPTION: Drain lines associated with the Low Pressure control valve below seat drains on the Unit 1 Steam Generator Feed Pump Turbines (SGFPT) have been modified to support maintenance activities (turbine disassembly). The modification will add a flange connection in drain lines 1-1306-L4-008-3/4" and 1-1306-L4-006-3/4" for SGFPT's 1-1306-K4-001 and 1-1306-K4-002, respectively. This connection will facilitate removal of the low pressure control valve assembly and eliminate the necessity of rewelding this connection each time removal is performed.

SAFETY EVALUATION: The SGFPT's are discussed in UFSAR Section 10.4.7, "Condensate and Feedwater". The description provided under this section describes basic turbine function and operation. The discussion does not go into the level of detail concerning drain lines associated with turbine components. Steam supply to the turbines is noted in both UFSAR Sections 10.2, "Turbine Generator" and 10.3.2, "Main Steam Supply System." Again, these descriptions do not provide a level of detail concerning component drains. The final reference to the SGFPT's is contained in UFSAR Section 10.4.3, "Turbine Steam Sealing System". The changes being implemented by this RER do not impact any discussion contained within these sections and will meet all the design requirements associated with the referenced lines' temperature and pressure rating. References are however made addressing P&ID 1X4DB166 which illustrates the drain lines impacted by this change. The drawing will require revision as a result of these changes and therefore will result in a change to the plant as described in the UFSAR.

SUBJECT: RER 96-0073

DESCRIPTION: The instrument air supply to pressure controllers used in placing a nitrogen blanket on the steam generators during wet lay-up are being closed. This will cause the individual pressure control valves to fail to the closed position. This function is not being used. The controllers in question have been the source of numerous maintenance activities to repair air leaks. Since they are not being used, performance of maintenance activities is not necessary. Air leaks have typically occurred in the bellows area of the controllers. With the valves in the closed position, air will not be supplied to this area thereby eliminating any leaks. This change involves drawing updates to reflect the positions of the air supply valves and pressure control valves.

SAFETY EVALUATION: The Nitrogen Supply system is discussed in UFSAR Section 9.3.5. Although this section describes one of the functions of the gas system as being for blanketing, it is not specific as to exact requirements and systems affected. Additionally, the valves although not currently being utilized for this function will still be capable of providing this function. The instrument air system is described in UFSAR Section 9.3.1. The description provided in this section does not provide sufficient detail as to individual loads served by the instrument air system. UFSAR section 10.3 describes the function and operation of components within the Main Steam system. This section references P&ID 1X4DB159-1 and 1X4DB159-3 which are being changed to reflect the disposition of the RER and therefore results in a change to the plant as described in the UFSAR. The change itself does not impact any discussion addressing system function and operation contained within these sections.

SUBJECT: RER 96-0077

DESCRIPTION: The Unit 1 and Unit 2 Turbine Generator Hydrogen Seal Oil Filters (1/2-1324-S4-501-F01 & F02) have 1" threaded plugs on their bottoms to support draining the filter canister during filter change out. Use of the plugs for a controlled draining is difficult and can pose an oil spill hazard since this is the low point for the skid. Under this modification, valves were installed in place of the threaded

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plugs to provide a controlled method of draining the referenced filters. The valve and piping assemblies meet all the original design requirements of the Hydrogen Seal Oil System and skid manufacturer.

SAFETY EVALUATION: While the referenced valve addition to the Hydrogen Seal Oil Filters will meet the design and construction specifications for the system, the valve addition will require a change to P&ID 1X4DB191, which is referenced in UFSAR Section 10.2.2-Turbine Generator Description. This therefore changes the plant as described or referenced in the UFSAR. The referenced valve addition will not effect any safety related system or component. The Hydrogen Seal Oil system is not a safety related system, nor can its failure effect any safety related system or component not previously analyzed. This is based upon a review of Technical Specification Section 3/4.7 "Plant Systems." The referenced valve addition will not change any design basis for possible spillage or containment of seal oil in the environmental protection plan for the plant.

SUBJECT: RER 96-0095

DESCRIPTION: Valves 1/2-1301-X4-800 through 807 have been deleted. These valves serve as isolation points for connection of temporary instrumentation for pressure test points associated with the Moisture Separator Reheater (MSR) reheating steam supply. These valves have been the source of numerous leaks. The valves have been deleted from the system. Pipe caps have been welded in place of the valves.

SAFETY EVALUATION: The valves that were eliminated are associated with the main turbine MSR reheating steam supply. the description of the main turbine in UFSAR Section 10.2 does not address these valves. Overall system operation has not been impacted by the deletion of these valves. The change did necessitate the revision of P&ID 1X4DB160-2 which is referenced in UFSAR Sections 10.2.2 and 10.3.2.1.

SUBJECT: RER 96-0160

DESCRIPTION: Valve 2-1404-U4-728 is a sample point for chemistry to monitor Turbine Plant Closed Cooling Water. The sample valve has had a history of not shutting off completely allowing leakage. The sample valve is welded inline and cannot be removed from service while the unit is on line. To help alleviate this problem, a valve has been added downstream of this sample valve. The added valve is smaller in size which offers a more controllable flow stream for sampling. In addition, the installation of the valve is such to facilitate replacement if necessary. The addition of the smaller valve will also prevent the necessity of the use of the larger valve for throttling sampling flows which has been linked to the original seat failures for this valve.

SAFETY EVALUATION: The Turbine Plant Closed Cooling Water System is discussed in UFSAR Section 9.2.10. The description provided in this section is not to the level of detail that would address sample valves and connections. The change does however result in a required revision to a plant design drawing referenced in this section. Addition of a valve downstream of the existing sample valve will not impact operation of the system as defined in this section. The Turbine Plant Closed Cooling Water System is not the topic of any plant Technical Specification.

SUBJECT: RER 96-0189

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DESCRIPTION: The tubing which was added under MDC 95-VAM045 to supply a small continuous flow of dry instrument air through the EHC Hydraulic Power Unit breather is being modified to route the purge air directly into the space above the fluid in the reservoir. This was found to be more effective in decreasing the EHC fluid moisture content than the original method of connection.

SAFETY EVALUATION: The Main Turbine EHC system is generally discussed in UFSAR Section 10.2. The level of detail provided in this discussion is of such a nature that the changes being made will not necessitate further discussion. The change did result in the revision to a design drawing that was referenced in this section. The Instrument Air System is discussed in UFSAR Section 9.3.1. The change implemented under this modification adds a small amount of air flow to the reservoirs associated with the Main Turbine EHC System. This will not impact overall system operation as described in this section. The change did result in the revision to a design drawing that was referenced in this section. The Main Turbine EHC hydraulic power unit and the instrument air systems are not the subject of any Technical Specification.

SUBJECT: RER 96-0190

DESCRIPTION: This evaluation reviews the storage of solid radwaste in a High Integrity Container (HIC) which is to be positioned into a Shielded Environmental Container (SEC). This container is to be located immediately south (on the south east corner) of the abandoned radwaste solidification building and will contain spent radwaste process filters. Only solid waste will be stored. This container, when filled to capacity, is expected to reach internal dose rates as high as 2000 R/hr and will be stored in this location for several years prior to final offsite shipment. The entire container "package" consist of a HIC which will house the filter elements and will be positioned into the SEC cask. The SEC cask will serve as a shielding cask and environmental container providing radiation exposure shielding and protecting the HIC from normal environmental exposure. Neither the SEC cask or the HIC is designed to withstand earthquake, tornado or missile exposure. The HIC is qualified to withstand three times it's weight (overburden, i.e., can be buried in 3 times it's weight) for underground burial purposes. The SEC is made from non-combustible materials and no fire protection system is required. The SEC cask is a right circular cylinder approximately 9-1/2 feet tall (including the lid), 10 feet wide (i.e., outside diameter) with 23 inch walls. Its floor is 12 inches thick. It is equipped with a drain and vent pipe (3/8" SS schedule 40 pipe) that is routed through the wall in a way that prevents outside rain water from intruding into the plenum or any material inside from getting out. The lid, which weighs 29,000 lb., sits on top of the vessel base mating with the vessel lip with a stop joint such that, to move the lid requires lifting it approximately 5" (height of the stop joint). The vessel base weighs 62,000 lb. So the total vessel weight is 91,000 lb. (or 40.6 tons). The vessel is fabricated with two sheets of rebar; one located 1.5 inches from the inside surface, the other 1.5 inches from the outside. This rebar is embedded in the concrete vessel material. At internal dose rates of 2000 R/hr, the external dose rate at 25 ft. is expected to be less than .05 mR/hr.

SAFETY EVALUATION: UFSAR section 11.4.1(D) indicates that the design basis for the solid waste management system includes a means to transfer spent filter cartridges in a manner that minimizes radiation exposure to operating personnel, and to minimize the spread of contamination. Storage of the filter elements in the SEC cask is consistent with that description. Additionally, the design and construction of solid radwaste management systems and components are to be consistent with the criteria of Reg. Guide 1.143, which provides design criteria for solid waste systems and indicates that no seismic design criteria are required for systems or components that are used to collect, process or store solid radwastes. (Ref. RG 1.143, section 3, "Solid Radwaste System", paragraph 3.1.4). The storage of spent filters in the SEC cask does not compromise this design commitment to RG 1.143. UFSAR section 11.4.1.2, "Power Generation

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Design Basis," indicates that temporary onsite storage for packaged waste is provided by the solid waste management system. The use of the shielded SEC cask for spent filter storage has no impact to power generation and therefore, does not effect the UFSAR's existing evaluation of the Solid Waste Management Systems impact to power generation. UFSAR section 11.4.2.3.3, "Filter Handling System," describes the system for removing spent filters from process vessels for placement in externally shielded drums and describes that the filters in the shielded drums are transported to the ARB for packaging. This process remains unchanged. UFSAR section 11.4.2.4, "Portable Radwaste System," indicates that onsite storage of liners that cannot meet the dose limitations for transportation (49 CFR 173 limits), and is accomplished by allowing decay "...in appropriate onsite storage areas." The location of the SEC will be under the control of the Health Physics dept. which would establish appropriate controls in accordance with UFSAR sections 12.3.1.2 and 12.5. Additionally, the pad which will support it has been evaluated for civil integrity. This section will be changed to describe this added storage description. UFSAR section 9.5.1 lists the potential fire impacts on radwaste systems and components. The SEC is made of noncombustable material. Thus, there is no impact to this section. Section 6.6 of the Process Control Program (PCP) describes that spent cartridge filters are transported to the Alternate Radwaste Building (ARB) for disposal in "...suitable containers," (these include 55 gallon drums, HIC's, etc.). Storage of these filters in the location described does not compromise this description since spent filter and HIC preparation for positioning into the shielded container will be completed in the ARB as described in the PCP.

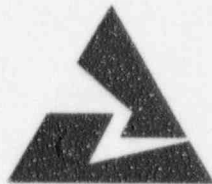
SUBJECT: RER 96-0205

DESCRIPTION: Drain lines associated with the Low Pressure Control Valve Below Seat Drains on the Unit 2 Steam Generator Feed Pump Turbines (SGFPTs), plant tag numbers 2-1306-K4-001 and 002, must be cut to allow disassembly of the control valve assembly. The modification reviewed in the referenced RER and evaluated in this document will require the addition of mechanical connections (flanges) and minor rerouting of lines 2-1306-L4-008-3/4" and 2-1306-L4-006-3/4," for SGFPTs 2-1306-K4-001 and 2-1306-K4-002, respectively. This connection will facilitate the removal of the low pressure control valve assembly and eliminate the necessity of rewelding the line(s) during the disassembly/reassembly procedure. All modifications will follow the requirements for the applicable piping material designation and follow the design requirements for the applicable system.

SAFETY EVALUATION: The SGFPTs are discussed in UFSAR Section 10.4.7, "Condensate and Feedwater". The description provided under this section describes the basic function and operation of the turbine and main condensers. The discussion does not provide details of the referenced line(s) or their requirements. Steam supply to the SGFPTs is noted in UFSAR sections 10.2, "Turbine Generator," 10.3.2, "Main Steam Supply System," and 10.4.3, "Turbine Steam Sealing System." These descriptions also do not provide details of the referenced line(s). The referenced modifications being implemented under this RER do not impact any discussion contained within these sections and will meet all the design requirements associated with the system requirements and the line's temperature and pressure rating. The UFSAR does however reference P&ID 2X4DB166, which illustrates the drain lines impacted by this change. P&ID 2X4DB166 will require revisions as a result of this modification which results in a change to the plant as described in the UFSAR.

**10 CFR 50.59(B) REPORT
OF TESTS & EXPERIMENTS.
APRIL 1, 1995 THRU NOVEMBER 12, 1996**

**VOGTLE ELECTRIC GENERATING PLANT
UNITS 1 & 2**



Special Tests

SUBJECT: T-ENG-96-15

DESCRIPTION: The test was written to perform a verification that the accumulator discharge check valves, 2-1204-U6-079 thru 082, open by flow, utilizing non-intrusive check valve diagnostic equipment and/or by performing an L/D calculation. This calculation is a measure of pipe resistance given in equivalent length, in pipe diameters of straight pipe, that will cause the same pressure drop as the given piping configuration under the same flow conditions. The test involved pressing the accumulator to a maximum pressure of 125 psig. Test equipment was used to measure and record the change in accumulator pressure and level versus time during the test. Additionally, non-intrusive check valve diagnostic equipment was attached to the check valves. The discharge MOV will be cycled open and will remain open for a short duration of time and then it will be closed with sufficient time remaining before nitrogen would be injected into the RCS. If the flow causes the disk to hit the backstop with sufficient force to be recorded by the nonintrusive check valve diagnostic equipment, this will be a demonstration that the check valve fully opened. If the disk to backstop impact is not recorded by the nonintrusive check valve diagnostic equipment, then it may be proven to have opened by performance of the L/D calculation. Technical specification 4.0.5 requires that applicable pumps and valves be tested pursuant to ASME Section XI. ASME Section XI requires that a check valve be exercised to the position required to fulfill its safety function. For primary cold leg injection valves, this requirement has been satisfied by disassembling and inspecting and manually exercising the check valves on a staggered basis. To perform this type of testing on the accumulator check valves would require the plant to be at midloop. This evolution is very labor intensive and exposure to involved personnel is high. This method has been recognized as an acceptable method of verifying full stroke of check valves (NUREG-1482).

SAFETY EVALUATION: 10 CFR 50.59 allows the holder of a licensee authorized to operate a nuclear power facility the capacity to investigate and disposition tests or experiments not described in the safety analysis report. The accumulator blowdown check valve testing represents such a test. The design basis of the ECCS is described in UFSAR Section 6.3. Specifically, the accumulators and the accumulator check valves are discussed in UFSAR Section 6.3.2.2.1. The ECCS requirements are discussed in Technical Specification (TS) 3/4.5, accumulator requirements (modes 1,2 and 3) are discussed in TS Section 3/4.5.1, and refueling operations are discussed in TS Section 3/4.9.1. The accumulator check valve test is performed during refueling (mode 6) operations with the reactor head removed and the pressurizer vented. Operability of the accumulators during Mode 6 is not required per the TS. Performance of this test will not affect any accident previously evaluated in the UFSAR. The accumulator check valve testing will not adversely affect the integrity and function of the ECCS components assumed in the accident analysis or plant scenarios. The integrity of safety related components and systems is maintained. Based upon the results of the safety evaluation it was determined that the proposed test did not constitute an unreviewed safety question.