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U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Subject: Oconee Nuclear Site
Docket Nos. 50-269, 50-270, 50-287
10 CFR 50.59 Annual Report

Attached are descriptions of Oconee facility changes, tests, and experiments which were completed subject to the provisions of 10 CFR 50.59 between January 1, 1999, and December 31, 1999. This report is submitted pursuant to the requirement of 10 CFR 50.59 (b) (2).

An attachment to denote any UFSAR changes performed in accordance with licensing amendments is also included for information.

If there are any questions, please contact Larry Nicholson at (864) 885-3292.

Very truly yours,

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Attachment

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Attachment 1

Oconee Facility Changes - 1999

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I. NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: BWST, HPI

NSMs ON-1, 22885 added an interlock between the Letdown Storage Tank (LDST) Lo-Lo Level signal and the High Pressure Injection (HPI) Pump Suction Supply from the Borated Water Storage Tank (BWST) Isolation valves HP-24 and HP-25 that open when the LDST Lo-Lo Level setpoint is reached on Units 1&2. A switch was also added to the control boards to provide the capability to disable the interlock. Computer points were added to monitor the new circuitry. New alarms were also added.

This modification replaced the pneumatic and electronic LDST pressure instrument loops with QA Condition 1 electronic components and power supply. These modification parts also replaced both trains of LDST level instrumentation with QA Condition 1 instrumentation. The setpoint for the LDST Lo-Lo level was raised. This setpoint is used to interlock valve HP-14 (LDST Bypass) to the LDST Lo-Lo Level. The LDST Hi level computer point was renamed the HiHi level and the Hi level point was deleted. The Lo level setpoint for the recorder and statalarm was increased and the Hi level setpoint was reduced. This modification deleted a pressure switch whose function was to automatically open valve N-1 to add nitrogen to the LDST on low LDST pressure. This function is no longer used.

SAFETY EVALUATION SUMMARY

The normal function of the HPI System is not adversely affected. The new circuitry's automatic action is a backup action to the manual Operator action to align the BWST outlet valves. The potential for hydrogen from the LDST to reach the HPI pumps is not increased. Monitoring for RCS leakage is not adversely affected. The increase in the setpoint of the Lo-Lo level alarm will provide the Operators with additional time to be aware of low LDST level. All equipment associated with this modification, except the Operator Aid Computer annunciators and alarms, the local readout instrumentation, and the nitrogen switch are QA-1. There are no single failures that will cause the circuitry to actuate inadvertently and open the BWST isolation valves. This modification does not affect the ES operation of the valves HP-24 and HP-25. The ES signal will open the valves if they have not already been opened by the new logic. The power supplies and electrical components are adequate for the new loads. An electrical 10 CFR 50 Appendix R fire review was performed. This modification meets the applicable electrical standards in UFSAR Sections 8.3.1.4, 8.3.1.5, and 9.5.1.4.3. No Regulatory Guide 1.97 instrument indications are adversely affected. A seismic control board review was performed. A core drill was made to the QA-1 Auxiliary Building wall, but does not adversely affect the structural integrity of the wall. This modification involves no USQs or safety concerns. No technical specification changes are required. Since the LDST level instrumentation was changed to a Regulatory Guide 1.97 Category 2 instrument, changes were made to UFSAR Section 7.5.2.45. UFSAR Section 5.2.3.10.3 was revised to change the high and low setpoints for the LDST high and low alarm (statalarm) indication and the approximate maximum time that the LDST low level would provide the alarm indications for Units 1&2.

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: Spent Fuel Pool (SFP) Fuel Handling

NSMs ON-12914, Parts AL1 & AL2, upgraded the power systems, control systems and the mechanical design of the Unit 1 & 2 shared SFP fuel handling bridge to resolve reliability and obsolescence issues. The electrical control consoles, motor control centers, load weight systems, feeder cabling, motor drives, brakes, fuel grapples, air systems, and wiring were replaced or modified. The present analog controls were replaced with a digital Programmable Logic Controller (PLC) controller and a programmable load cell. The crane interlocks (bridge, trolley, and hoist permissives and safety features) are implemented through PLC programming, in place of relay logic. The fuel bridge/grapple operational interlocks and bypasses are functionally equivalent to those of the existing system. More reliable and versatile load cell and elevation systems provide inputs to the PLC in the new design. Bridge and trolley positioning capabilities were added, to permit small, controlled changes in fuel grapple position. The fuel bridge drive motors were modified to have frequency drive for smooth variable speeds operation. The fuel handling grapple was replaced with a newer design. An unused grapple interlocks bypass capability is removed. A grapple controls bypass function is added that provides a backup in case of controls failures or problems with pneumatic valves. However, the design of fuel grapple will not permit it to open/disengage unless the grappled fuel assembly is fully seated in a spent fuel pool rack or fuel transfer carriage basket, unloading the grapple locking mechanism. The hydraulic fuel grapple actuation system was replaced with a pneumatically actuated design. The fuel hoist was modified to incorporate a programmable load cell into the load weight system. The configuration of the load weight system was modified, with the three existing pulleys being replaced with a single load-bearing pulley.

SAFETY EVALUATION SUMMARY

The SFP fuel handling bridge plays no direct role in plant operations other than fuel handling (e.g. refueling, fuel shuffles within the SFPs, dry cask loading, etc.). The system is not a precursor for any accident other than the design basis fuel handling accident. The number of fuel assemblies potentially damaged during a fuel handling accident is not changed by this modification. With the reconfigured hoist and fuel grapple configuration, the minimum water depth above fuel being handled in the SFP, presently credited for personnel radiation shielding, is still met. The water depth credited for the removal / retention of iodine within the SFP water during a SFP fuel handling accident is not adversely impacted. The consequences of the design basis, single fuel assembly fuel handling accident (FHA) in the SFP are not adversely impacted. The functional design and safety features of the SFP Fuel Handling System and the fuel bridge are retained. Interlock protection is provided for new control features that replace existing manual capabilities. The fuel bridges will still move only one fuel assembly at a time. The fuel bridge mast will still be used only to lift/move fuel assemblies, control rod assemblies, and burnable poison assemblies. No reductions in the margins of safety as defined in the basis of any technical specification are postulated. The fuel handling crane will still be restricted to suspending loads no greater than 3000 lbm. There are no credible adverse impacts on the ability of the Unit 1&2 SFP Ventilation System to be used to mitigate the consequences of a FHA. There are no adverse impacts on the RCS, containment integrity, or containment isolation capabilities. This modification involves no safety concerns or USQs. No changes are required to the station SLCs, Technical Specifications, or Technical Specification bases. UFSAR Section 9.1.4 and Figure 9-7 were updated to reflect the modification.

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: Reactor Building Fuel Handling

NSM ON-12914, Parts BL1 and BL2, implemented changes to the Fuel Handling System within the Units 1&2 Reactor Building. The unused Auxiliary fuel handling bridge was removed from containment and scrapped. Power systems, control systems and the mechanical design of the main fuel handling bridge were upgraded. The multifunctional fuel handling mast was replaced with a newer design for handling fuel assemblies with/without control/orifice rod components. The main bridge fuel hoist now has a programmable load cell in the weighing system. The existing hoist pulley arrangement was similarly modified. The electrical control consoles, motor control centers, load weight systems, feeder cabling, motor drives, brakes, fuel grapples, air systems, and wiring were replaced or modified. The existing programmable logic controller (PLC) controls for the bridge, trolley, and hoist were replaced with a newer digital model and programmable load cell. The unused automatic positioning system for the main fuel bridge and associated control logic was removed. The control logic was modified to reflect the replacement of the multifunctional mast with a fuel-only mast. Control logic for the rod handling mast was deleted, and the man/machine interface changed accordingly. The crane interlocks (bridge, trolley, and hoist permissives and safety features) are now implemented through PLC programming. More reliable and versatile load cell and elevation systems provide the inputs. Bridge and trolley positioning "jog" capabilities were added, to permit small, controlled changes in fuel grapple position. The electrical control console, motor control center, festoon cabling, and wiring were replaced. The fuel bridge drive motors were modified to have frequency drive for smooth variable speeds operation. The fuel handling grapple was replaced with a newer design. The design of fuel grapple will not permit it to open/disengage when it is loaded. The existing, pneumatically-actuated fuel grapple actuation system was also replaced with a similar design.

SAFETY EVALUATION SUMMARY

The main fuel handling bridge plays no direct role in plant operations other than fuel handling. The system is not a precursor for any accident other than the design basis fuel handling accident. The fuel handling crane plays no direct role in mitigating the progression or radiological consequences of any accident described in the SAR. The number of fuel assemblies potentially damaged during a fuel handling accident is not changed by this modification. With the reconfigured hoist and fuel grapple configuration, the minimum water depth above fuel being handled in the Unit 3 refueling canal, presently credited for personnel radiation shielding, is still met. The water depth credited for the removal / retention of iodine within the SFP water during a RB fuel handling accident is maintained. As a result, the consequences of the design basis, single fuel assembly fuel handling accident (FHA) in the SFP are not adversely impacted. No adverse impacts on post-accident Reactor Building conditions, containment integrity, or the environmental qualification of plant SSCs are postulated. The functional designs and safety features of the Fuel Handling System and the Units 1&2 main fuel bridge specifically related to fuel assembly handling are retained, and are not adversely impacted by the modification. Interlock protection is provided for new control features that replace existing manual capabilities. The fuel bridges will still move only one fuel assembly at a time. The design of fuel grapple will not permit it to open/disengage unless the grappled fuel assembly is fully seated. There are no adverse impacts on the RCS, containment integrity, or containment isolation capabilities. This modification involves no safety concerns or USQs. No changes are required to the station SLCs, Technical Specifications, or Technical Specification bases. UFSAR Section 9.1.4 and Figure 9-7 were updated to reflect the modification.

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: Independent Spent Fuel Storage Installation (ISFSI)

This safety evaluation supports NSM-52959, Part C that added the final twelve horizontal storage modules (HSMs) to ISFSI Phase III. The modification provides for continued dry storage of spent fuel discharged from the Oconee reactors at the onsite General License ISFSI.

SAFETY EVALUATION SUMMARY

The new GL dry storage system is similar to the Oconee site specific system (License SNM-2503), and can utilize the existing fuel handling equipment, dry storage canisters (DSC) design, transport/loading equipment, and site location. For the Phase III GL design, Duke utilizes its QA-4 designation for the HSMs. Although some of the license conditions may differ between the existing site specific and General License systems, there is no conflict since each system will be treated as a separate entity, both procedurally and in licensing space. The operation/function of plant SSCs, as evaluated in the SAR is not adversely affected by this activity. The change does not adversely affect the design, integrity, operation or function of SSCs. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity was also evaluated under 10CFR72.212 and communicated to the NRC. No USQs are involved with loading Phase III HSMs. This activity has no effect on any margins of safety as previously evaluated in the SAR. No Technical Specification changes are required. No UFSAR changes were required.

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: 7 kV Electrical

NSM ON-1, 22983/0 addresses the following:

Item 1- Interlocks the 7kV startup breakers (E) with switchyard isolation actuation to prevent them from closing and trip, if closed, during a Loss of Offsite Power (LOOP) event. Both channels of switchyard isolation are used to preclude single channel failure.

Item 2 - Replaced the slow bus transfer timers (Agastat) with Cutler Hammer relays and timers, and reset the 7kV slow bus transfer timers.

SAFETY EVALUATION SUMMARY

The Switchyard Isolation and its associated wiring is QA Condition 1. The portion of this modification associated with the 7kV startup breakers is also QA Condition 1. A review for seismic interaction between non-seismic and seismic structures, systems, and components was performed and no concerns were identified. The new electrical components are adequate for the electrical loading. The new safety/non-safety electrical interfaces are protected with safety related isolation devices. The new equipment is qualified for its environment. An electrical 10 CFR 50 Appendix R fire review was performed. The slow bus transfer time delay relay setting does not adversely affect the slow bus transfer and associated equipment's operation. The function of the Agastat E7012 time delay relay contacts was not changed. The nuclear fuel, RCS, and containment integrity are not adversely impacted, and no new radiological release pathways are created. This modification involves no USQs or safety concerns. No technical specification changes are required. UFSAR Section 8.3.1.1.2 and Figure 8-3 were revised to change the time delay when the main generator has been supplying in-plant loads while separated from the switching station and the normal unit source is lost. The time delay was changed from 1 second to 1.8 seconds.

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: 125 Vdc Vital Instrument & Control (I&C) Batteries

NSM ON-22998/0 (Part AL1) replaced the two Unit 2 125 Vdc Vital I&C Batteries (2CA, 2CB) and the battery racks. The existing battery rack bases and anchors were removed, and the method of connecting the power cables to the battery was changed. A battery test circuit with circuit breaker disconnects was added. The new test disconnects were added to provide QA-1 isolation between the battery test connections in the Turbine Building and the 125 Vdc batteries located in the Auxiliary Building.

SAFETY EVALUATION SUMMARY

The Vital I&C Batteries and their associated system are used for mitigation of some loss of power scenarios. Replacement of the batteries does not change the existing design basis. Each new battery is sized to carry the continuous emergency load for a period of one hour in addition to supplying power for the operation of momentary loads during a one hour period. The new batteries are sized to support the Station Blackout coping strategy that allows for operation of the equipment required during the scenario for four hours. The new batteries, racks, terminal boxes and disconnects are QA-1 and seismically qualified. The new batteries are completely redundant. An Appendix R review was completed. The batteries and new associated cabling meet electrical separation criteria and specifications for electrical components as listed in UFSAR Sections 8.3.1.4.6, 8.3.1.5, and 9.5.1.4.3. The design of the new batteries meets Tech Spec 3.8.5 and Table 3.8.5-1 requirements. All installed components reside in a mild environment. No alarm or protective features were eliminated. The existing ventilation system is still adequate to maintain hydrogen generation at or below UFSAR limits with the new batteries. This modification involves no USQs or safety concerns. No technical specification changes are required. UFSAR Table 3-68 was revised to include the seismic documentation reference for the new Unit 2 batteries (Pkg 99-66).

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: Essential Siphon Vacuum (ESV)

NSM ON-13000, Part C tied the ESV system into the existing plant Vacuum Priming system on Unit 1.

SAFETY EVALUATION SUMMARY

The operation of the ESV system enhances the siphon mode of operation of the CCW system. The reliability of the siphon is improved with ESV providing air removal. The new connection does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs, including vacuum priming, are degraded. There is no affect on reactivity. No plant safety limits or setpoints are adversely impacted. This activity also has no effect on any margins of safety as previously evaluated in the SAR. This modification involves no USQ's or safety concerns. No Technical Specification changes are required. UFSAR Figure 10-5 was revised accordingly per package 99-216.

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: 125 Vdc Vital Instrument & Control (I&C)

NSM ON-53004 upgraded the trouble alarms in the 125 Vdc Vital I&C System by:

- (1) replacing the existing ground detection relays
- (2) enhancing alarm configuration of charger alarms and ground alarms, and
- (3) adding equipment for quantifying ground location and severity.

SAFETY EVALUATION SUMMARY

The 125 Vdc Vital I&C Power system provides continuous power, on loss of AC power, to certain loads. The ground detection system is used to detect grounds on this system. The modified ground detection system provides better sensitivity for detecting "smaller" grounds. The 125 Vdc trouble alarms are not safety related. There are no seismic or environmental concerns, and an Appendix R fire review was completed. This modification does not affect the design or function of any Regulatory Guide 1.97 instruments. This modification does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There is no effect on plant safety limits or design parameters. There is no reduction in any safety margins associated with the fission product barriers. This modification involves no USQs or safety concerns. No technical specification changes are required. UFSAR Sections 8.3.2.1.8 and 8.3.2.2 were revised accordingly (Pkg 99-68).

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: MFW, EFW, & RPS

NSM ON-23007 "Main Feedwater Pump Discharge Pressure Switch Removal" removed the main feedwater pump (FDWP) discharge pressure input to the Reactor Protection System (RPS) Anticipatory Reactor Trip System (ARTS) and the Emergency Feedwater (EFW) System on Unit 2. The modification reconfigures the ARTS to initiate a loss of main feedwater anticipatory reactor trip solely in response to indications of low FDWP control oil pressure. The ARTS loss of main turbine anticipatory trip is unchanged. The EFW circuitry was reconfigured to automatically initiate on low control oil pressure and low-low steam generator level. The Anticipated Transient Without Scram (ATWS) Mitigation System Actuation Circuitry (AMSAC) initiation of EFW on low FDWP discharge pressure remains unchanged. This modification was implemented to resolve a history of operational, design, and procurement problems.

SAFETY EVALUATION SUMMARY

The RPS and EFW are accident mitigation systems. The removal of the FDWP discharge pressure inputs from the ARTS and EFW systems does not prevent these mitigative systems from sensing a loss of main feedwater and providing their design functions. AMSAC/DSS is unaffected by this modification and will continue to monitor FDWP discharge and hydraulic oil pressures to detect a loss of main feedwater. Removal of the FDWP discharge pressure switches is postulated to potentially reduce the possibility of a reactor trip. Sufficient diversity exists such that the probability of challenging the PORV is not be increased. The NRC approved the Technical Specification change request to remove the main feedwater pump discharge header pressure switch inputs to the ARTS and EFW actuation. This change was incorporated into the Improved Technical Specifications, Selected Licensee Commitments and the UFSAR; therefore this modification maintains the plant within a previously evaluated condition. The actuation of the EFW System on low FDWP hydraulic oil pressure and low-low steam generator water level actuation functions are unaffected by the modification. Deletion of the FDWP discharge pressure switches and associated hardware removes secondary instrumentation with the potential for causing a reactor trip. This modification does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There is no adverse effect on plant safety limits or design parameters. There is no reduction in any safety margins associated with the fission product barriers. This modification involves no safety concerns or USQs. No Technical Specifications or UFSAR changes are required.

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM:

NSM ON-53015/0 (Part AL1) provides logic in the controls of the three gas turbines to preclude the effects of postulated out of tolerance voltage and frequency when the 100 kV source is the isolated path from a Lee Steam Station Combustion Turbine Generator. A selector switch in the turbine control panel allows operators at Lee to defeat the out of tolerance voltage and frequency logic at any time. Relay targets provide indication of the status of the logic provided by this modification.

This modification results in the generator breaker of the Lee combustion turbine supplying the isolated 100 kV line being automatically tripped (after a time delay) if out of tolerance voltage and/or frequency occurs. The new circuitry prevents the output breakers from being manually closed until voltage and frequency is both in tolerance. Once the voltage and frequency are in tolerance, the out of tolerance voltage and/or frequency must exist for an additional time delay for automatic breaker trip to occur.

This modification alleviates concerns relative to postulated combustion turbine malfunctions that involve out of tolerance (either high or low) voltage and frequency, when operating in the Isolated Mode and aligned to the Oconee Standby Buses. In particular, occurrence of these malfunctions could possibly cause adverse effects to Oconee auxiliary loads during Design Basis Events that involve the combustion turbine source becoming automatically connected to the main feeder buses.

SAFETY EVALUATION SUMMARY

The Lee combustion turbines are used for mitigation of loss of power scenarios. This modification is an enhancement to the system. All the circuitry changes are made to the non-QA-1 portion of the system. The out of tolerance voltage and frequency is not assumed to occur at Lee when Lee is used for Oconee's emergency power supply since the plant is in technical specification action statements. The new circuitry is designed as a 2 out of 3 logic, thus a single failure of one of the non-QA components will not cause the circuitry to inadvertently actuate. The Emergency Power Switching Logic CT-5 Degraded Grid Voltage Protection is not changed. The installation of the new out of tolerance relaying does not impact the way in which the Lee combustion turbines interface with the Duke grid. There are no 10 CFR 50 Appendix R concerns. Power sources, cabling, and other electrical components are adequately sized. There are no seismic interaction concerns. There are also no new non-safety/safety electrical interfaces created since the circuitry is installed at Lee. Duke voluntarily committed to provide protection against damage due to out of tolerance voltage and frequency. Information concerning the circuitry described by Duke to the NRC included that the location of the circuitry be incorporated into the SL breaker trip logic. The circuitry for this modification is physically located at each of the three combustion turbines, not at the SL breakers. Duke stated in the response to the open item that the conceptual design could be changed and the changes in the conceptual design could be provided at a later date. The NRC acknowledges in their interim report that the modification scope provided by Duke was tentative. The commitment is to provide voltage and frequency protection, and this modification provides that protection. This modification involves no USQs or safety concerns. No UFSAR changes are required. No technical specification changes are required.

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: Control Rod Drive Mechanisms (CRDM)

NSMs ON 1, 23032 Part AM1 replaced 34 of the Type A CRDMs as well as all of the PI amplifier cards on Units 1 & 2. The upgrade consisted of CRDM assemblies, which includes new motor tubes, internals and bolting hardware, stator/water jacket assemblies, and position indicator (PI) tubes. The jackscrew closure assemblies were replaced with closure assemblies with a hydraulic tension design. Seismic plates were replaced to accommodate the new PI tube. The new replacement PI tubes are dual (redundant) channel design. Since the new PI amplifier cards work with the original Type A CRDMs as well as the new Type C CRDMs, all of the PI amplifier cards were replaced in this phase. This process allows the benefit of using the redundant PI channel on the drives that have been replaced. Emphasis is on replacing trouble prone drives in the first phase, which replaced approximately one half of the CRDMs. The Type C CRDMs are direct replacements for the old ones and are attached to the top of the reactor vessel head inside the service structure. The Type C motor tubes are identical with respect to the lower flange bolt hole circle, size, and location of the index pin. The closure motor tube assemblies are hydraulic tension types with quick vents. The old CRDMs were jack screw loaded for proper seating. The quick vents on the mechanism remain the same.

SAFETY EVALUATION SUMMARY

The CRDMs are classified as QA Condition 1 due to the Class A pressure boundary with the reactor coolant. The Type C CRDMs are designed to the same pressure and temperature requirements as the Type A CRDMs. There are no new failure mechanisms for the Type C CRDMs as compared to the Type A CRDMs that could cause the rods to not trip, or to "stick". The PI tube, seismic plate, or amplifier cards are not QA Condition 1. There are no new safety/non-safety electrical interfaces. The Type C CRDMs have a 0.1 second longer trip time than the Type A CRDMs. However, the transients that are sensitive to trip delay time (Startup, Rod withdrawal, and Rod ejection accidents) were evaluated for the longer trip delay time of the Type C CRDM for Unit 3. The Type C CRDMs are presently installed on Unit 3. As stated in the UFSAR, the results of these sensitivity studies shows that there is minimal impact from the longer trip delay time and all acceptance criteria are still met. Thus, the existing analyses are applicable to Units 1 & 2 for the replacement of the Type A CRDMs with Type C CRDMs. No new radiological release pathways are created. There is no adverse impact on reactivity management. There is no adverse affect any plant safety limits, set points, or design parameters. The change does not adversely affect the fuel, fuel cladding, Reactor Coolant System pressure boundary, or containment integrity. This modification involves no USQs or safety concerns and no technical specification changes are required. UFSAR sections 4.2.4.1, 4.3.5, 4.5.3, 15.2, 15.3.3, and 15.12.3, Tables 3-5, 4-22, and Figures 4-33, 34 and 4-35 were revised accordingly.

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: Reactor Building Cooling Units (RBCUs)

NSM ON-23041 removed the motor operated discharge dampers located in the Unit 2 RBCUs and installed dampers that operate on a combination of fan discharge pressure and gravity counterweights. This modification eliminates damaged dampers and the cause of the damage. The new design performs the intended functions – to prevent air backflow through RBCU fans when they are not running and to prevent the off cycle fan from rotating backwards. VN-23041AM1A to NSM-23041 modified an existing Reactor Building structural steel column and damper linkage shafts in order for the Unit 2 RBCU "B" damper to be installed. The damper linkage protruded beyond the damper housing creating the interference.

SAFETY EVALUATION SUMMARY

The replacement of the RBCU discharge dampers does not create any conditions or events that lead to an accident. The present functionality of the system is unchanged and no new failure modes are postulated. Neither the normal reactor building cooling nor the emergency functions provided by the RBCUs is adversely affected. The discharge dampers are located in a non-Q.A. portion of the RBCU. The dampers are not required to operate during accident conditions. New limit switches were installed for damper position, however, there are no new electrical safety to non-safety interfaces created. The slight modification to the steel column did not result in any structural degradation. No new radiological release pathways are created. There is no adverse affect any plant safety limits, set points, or design parameters. The change does not adversely affect the fuel, fuel cladding, Reactor Coolant System pressure boundary, or containment integrity.

This modification did not change any of the existing functions, but simply provides equivalent performance characteristics and much greater reliability. This modification involves no USQ's or safety concerns. No Technical Specification changes are required. UFSAR Section 3.1.49 and Figure 6-3 were revised per package 99-67 to show the elimination of the power operators on the dampers on Unit 2.

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: RCS, multiple

NSMs 1, 2, 33043 address thermal overpressurization concerns associated with isolated piping inside containment on all three units. Relief and check valves were added to the isolated sections of piping that are of concern. In one instance, the inside containment portion of the system is removed from service, as it is no longer of any use.

SAFETY EVALUATION SUMMARY

The design functions of the systems and equipment affected by this modification are unchanged. No new failure modes are created. No new accident scenarios are created by the addition of check and relief valves. The removal of the demineralized water supply to the third seal of the reactor coolant pump has no effect on the operation of the pump. The additional valves added to penetration piping have no effect on the ability of the penetrations to fulfill the design functions. Check valves are used to protect some of the isolated piping. The addition of a check valve provides an escape path for any water that would create increased pressure conditions, without impacting the operation of the system. In most cases, the isolated piping is protected by the addition of a relief valve. The relief-valve set point accounts for normal system operation and has been adjusted to prevent the valves from operating unless the pipe being protected is approaching overpressure conditions. With the exception of penetration 12b, the new relief valves are installed on the isolated piping with set points above the remainder of the system design pressure. The portions of pipe affected by potential overpressurization were requalified to the higher design pressure. Relief valve actuation will only occur in a situation of actual overpressurization. Under these circumstances the affected piping will already be isolated. Any fluids discharged from the relief valve will only be a small amount. In the unlikely event the valve fails to reseal, an additional small amount of fluid may be discharged while the content of the isolated piping reaches atmospheric pressure. For penetration 12b, the new relief valves set point is the same as the existing relief valve HP-404. This existing relief valve is located on the discharge of the RC Make-up Pump. However, the new relief valve is on a section of pipe that is isolated during normal system operation. There are no USQs and no technical specification changes are required. UFSAR Table 6-7, Figure 6-9 and Selected Licensee Commitment Table 16.6-1 were revised to show the deleted piping for penetration 47.

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: CBSAT, CS

NSM ON-1, 23044 replaced the Units 1 & 2 Concentrated Boric Acid Storage Tank (CBAST) positive displacement pumps with a centrifugal pump with a flow capacity of approximately 50 gpm to the Letdown Storage Tank. The primary function of the new CBAST pump is to deliver concentrated boric acid to the Reactor Coolant System (RCS) via the Letdown Storage Tank and the High Pressure Injection (HPI) pumps. The new pump will also recirculate the contents of the CBAST. Additionally, this modification; Removed accumulators downstream of the pumps' discharge, replaced throttle valve CS70, replaced the CBAST recirculating flow measuring orifice and associated flow gage with components designed for the higher recirculation flow rate, added a manual valve in the pump discharge line for double isolation., added a check valve in the pump discharge line for pump protection, added connections to allow the capability for a temporary pump to circulate the CBAST, removes the pump discharge pressure gage from the control room, added a new pump discharge pressure gage for local indication, added new instrument blowdown valves for the flow gage, and replaced affected piping. All affected heat tracing and wiring was removed and/or replaced.

SAFETY EVALUATION SUMMARY

The new pumps, piping, and new components are QA-2, Class E. The QA-1 portion of the suction piping is not affected by this NSM. The replaced piping is stainless steel. The modified Coolant Storage (CS) System will contain the specified sources of concentrated boric acid, including pumps and flowpaths. The modified CS System retains adequate trace heating. The new CBAST pump has a flowrate capacity greater than that in the technical specification bases. The removal of one CBAST pump and associated piping does not increase the likelihood of loss of boration control since the Technical Specifications already allow the plant not to be in an LCO with only one CBAST pump and associated flow path operable. The design includes having adequate heat tracing to meet the requirements of Technical Specifications. The new pump, piping, and other replaced/added components are designed for proper design conditions (e.g. pressure, temperature, and class). There are no seismic interaction concerns. A 10 CFR 50 Appendix R fire review was performed for the design phase, with no concerns identified. No special environmental qualification is required. The probability of the moderator dilution accident is not increased. The NSM replaced the auto stop batch counter, but the new controller also has a batch counter auto stop feature. This modification involves no USQs or safety concerns. No technical specification changes are required. UFSAR Section Table 3-2 was revised accordingly.

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: MFW, RPS

NSM ON-23058 installed on-line test circuits to functionally verify operation of the Main Steam Line Break (MSLB) detection circuitry on Unit 2.

SAFETY EVALUATION SUMMARY

The MSLB Detection and Feedwater Isolation circuitry itself is designed to address containment over-pressurization concerns by isolating feedwater to both steam generators during a Main Steam Line Break event. This modification to add test circuitry does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There is no adverse effect on plant safety limits or design parameters. There is no reduction in any safety margins associated with the fission product barriers. This modification involves no safety concerns or USQs. No Technical Specifications changes are required. UFSAR Section 7.9 was added to describe the MSLB detection and feedwater circuitry (Pkg 99-60).

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: Emergency Power - Keowee Hydro Exciter Breakers

NSM ON-53050 Part AL1 replaced the Keowee Generator Excitation Breakers with new Westinghouse DB breakers that utilize the original "X" relay scheme. The breakers used for the Keowee Unit 1 and Unit 2 generator excitation system include the Unit 1 & 2 field, supply, and field flash breakers, plus one on-site spare for each breaker function. The field breakers are Westinghouse Type DBF-16, the supply breakers are Westinghouse Type DB-50, and the field flash breakers are Westinghouse Type DB-25. Compartments were also modified with side to side restraints for the DB-50 and DBF-16 excitation breakers. The side to side restraints are a seismic enhancement and are to be used on the breakers to meet the SQUG (Seismic Qualification Utility Group) GIP-2 (Generic Implementation Procedure, Revision 2) criteria. The loadcenter 1X and 2X breaker compartments were also modified. The purpose of the replacement DB breakers is to eliminate failures associated with the old "Y" relay. The original "X" relay electro-mechanical anti pump scheme was replaced with an electrical "X-Y" relay anti-pump scheme by a previous NSM.

SAFETY EVALUATION SUMMARY

The Keowee Hydro units are used for mitigation of loss of power scenarios. This modification does not change, or adversely affect, the current function of the Keowee Hydro Units or the breakers. The new DB breakers are QA-1. The replacements are like-for-like with the original breakers. The seismic qualifications are maintained. There are no new safety/non-safety electrical interfaces. The power sources are adequate and the cabling and other electrical components are adequately sized. The modification meets the applicable electrical criteria in the UFSAR, such as the electrical separation criteria. The new components are qualified for their environment. An electrical 10 CFR 50 Appendix R fire review was performed. There is no adverse affect on containment integrity, and no new radiological release pathways are created. There is no affect on reactivity management. This modification involves no USQs or safety concerns. No UFSAR or technical specification changes are required

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: RMS, TMS

NSMs ON-1, 2, 33055 replaced the existing Radiation Monitor System (RMS) and Transient Monitor System (TMS) computer on all three Oconee Units. A new system, designated Process Monitoring Computer (PMC), was installed. The new PMC combines the RMS and TMS into a single system that meets the functional requirements of both systems while eliminating a potential Y2K deficiency. The new computer is an easily expandable, open architecture, data acquisition system that can utilize commercially available components.

SAFETY EVALUATION SUMMARY

Most of the information provided by the RMS/TMS computers is either duplicated elsewhere in the control room, or deemed not significant enough to have a dedicated display device. The RIA-57 and 58 (safety related Class 1E high range containment radiation monitors), have separate QA-1 indications that are hard-wired directly into the Control Board independent of the computer. Neither computer system is designated important to safety, safety related, or QA-1. Technical Specifications do not address computers except for speaking to use of the OAC for surveillance of the control rod drive system after opening of the patch panel. The SLCs only require additional operator support in the event of loss of OAC. The RMS/TMS computer is not relied upon to directly initiate a reactor trip, mitigate an accident, actuate a safety system, or perform any direct plant control function. The RMS/TMS computer is not required to be operable for the plant to operate. No detectors, instruments or local indications are affected by this change out. This modification involves no safety concerns or USQs. No Technical Specification changes are required to implement this modification. UFSAR sections 7.2.3.9 and 7.7.2 were revised to reflect installation of this NSM.

II. MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: Reactor Coolant System (RCS)

This activity is Revision 1 to the 10CFR 50.59 evaluation that supports ONOE-8272. This minor modification allows pre-positioning the breakers for SSF isolation valves and for the SSF RC makeup pump in the closed position to decrease the amount of time it takes operations to activate the SSF. Opening the breakers on normally closed containment isolation valves that are powered from the SSF is not required to ensure containment isolation unless they are deemed inoperable. Therefore, closing the breakers on normally closed SSF containment isolation valves is acceptable. 1/2/3CCW-269 breakers are now left in the closed position. The following breakers for SSF RC makeup system EMO valves and for the SSF RC makeup pumps are now also left in their closed position during normal operation:

1. 1/2/3SF-82
2. 1/2/3HP-417
3. 1/2/3HP-426
4. 1/2/3SF-97
5. 1/2/3HP-428,

SAFETY EVALUATION SUMMARY

Closing the breakers on normally closed valves, 1/2/3CCW-269, does not impact the non-Appendix R accident response of the EFW system since spurious operation of a powered EFW component need not be considered when designing the EFW system to withstand a single failure. If an Appendix R fire causes CCW-269 to spuriously operate, 1,2,3FDW-315 located upstream of the CCW-269 cross connect line will provide the Main Control Room Operator adequate flow control to feed the steam generators. If the 1/2/3CCW-269 breakers are left in the open position, an Appendix R fire could not cross connect the flow path between the A and B steam generators by spuriously opening 1/2/3CCW-269. However, cross connecting the flow path between the A and B steam generators due to spurious actuation of 1/2/3CCW-269 will not decrease the margin of safety for the following reasons: (1) EFW check valves will prevent EFW flow from being diverted away from the SG's. Therefore, EFW flow will be used for decay heat removal whether it is all directed to one SG or it is split between two SG's. (2) Total flow is controlled to the SG's by throttling the EFW control valve located upstream of the cross connection line located upstream of 1/2/3CCW-269. Flow control will be based on RCS parameters and SG level of the SG receiving the highest EFW flow rate. The HPI System would not be disabled by the same fire capable of opening a flow path from the RCS to the SFP due to multiple spurious actuations of SSF RC makeup system valves. The capacity of the HPI System can easily make up for any RCS leakage resulting from an open flow path from SSF RC makeup system flow path to the SFP. Therefore, an Appendix R fire in the Reactor Building, the West Penetration Room, or the SSF will not prevent systems normally used to bring the plant to stable mode 3 conditions with an average Reactor Coolant temperature ≥ 525 °F, from performing their function. No USQs or safety concerns exist. No changes are required to the Technical Specifications or UFSAR.

MINOR MODIFICATION (ONOE's)

DESCRIPTION

SYSTEM: Reactor Building Purge

Minor Modifications OE-8961 and OE-8962 replaced the actuators on valves 1PR-3 and 1PR-4 with a Flo-Tork model number NMS-1640-2 type, and also added isolation valves in the air supply line for Unit 1. PR-3 and PR-4 are the RB Purge Control and Inlet valves, respectively.

SAFETY EVALUATION SUMMARY

When closed, 1PR-3 & 4 direct any Reactor Building leakage which passes through the containment isolation valves (PR-1,2,5&6) through a vent line to the penetration room. This allows any leakage to be filtered by PRVS prior to being released to the environment. UFSAR Sections 15.14 and 15.15 describe the assumptions for calculation of doses to the public per 10CRF100 guidelines. For both the LOCA and the MHA, the dose analysis assumes a reactor building leakage rate of 0.25 w%/day. In addition, it is assumed that 50% of the 0.25 w%/day (0.125 w%/day) leakage passes through the PRVS filtration system. The remaining 50% is assumed to pass directly to the atmosphere. The results of the latest Unit 1 ILRT conducted in Jan 1993 showed an actual leak rate of 0.0871 w%/day (mass point UCL). This value is less than the assumed unfiltered leak rate that is released directly to the environment. Therefore, if none of the reactor building leakage is filtered by PRVS the assumptions for off-site dose are still valid. The replacement of the actuators with newer more reliable devices that provide all required SAR described functions does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. No new accidents are created. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. All Design Basis requirements are maintained. No USQs or safety concerns are involved with this modification and no Technical Specification or UFSAR changes are required.

MINOR MODIFICATION (ONOE's)

DESCRIPTION

SYSTEM: Reactor Building (RB), Filtered Water (FW)

Minor modifications ONOE's-10972, 11275 and 11283 eliminated Reactor Building penetration # 46, Filtered Water System, as a functional penetration on all three units. These minor modifications deleted 3 valves and about 50 feet of piping. The remaining FW pipe in the reactor building was left as is. The pipe outside the reactor building was retained because the FW system continues to serve functions outside the reactor building. These modifications resolved two issues:

1. Elimination of a source of chlorides in the reactor building, and
2. Elimination of a potential service water waterhammer penetration

Additionally, Filtered Water is no longer used to wash down the reactor building at the beginning of each refueling outage. It is also difficult to isolate and perform a leak rate test on this penetration.

SAFETY EVALUATION SUMMARY

The removal of the non-safety filtered water source to the reactor building does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. No new accident scenarios are created. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any important to safety SSC, and no increase in the probability of a malfunction of equipment important to safety. The affected penetration was fixed to ensure it does not become a source of reactor building leakage. No new radiological release pathways or failure modes are created. There is no adverse effect on reactivity. No plant safety limits, setpoints or design parameters are adversely impacted. No USQs or safety concerns are involved with this modification. No Technical Specification changes are required. UFSAR Section 3.7.3.1, Table 6-7, and Figure 6-9 were revised accordingly (Packages 99-15, 50).

MINOR MODIFICATION (ONOE's)

DESCRIPTION

SYSTEM: High Pressure Injection (HPI)

Minor Modification ONOE-11490 replaced valve 2HP-120, and the associated pneumatic operator, on Unit 2. HP-20 is the makeup and letdown isolation valve. This modification improves flow control and valve reliability.

SAFETY EVALUATION SUMMARY

The replacement of obsolete valves and operators with newer more reliable devices that provide all required functions does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. No new accidents are created. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. All seismic environmental, and QA requirements were maintained. All Design Basis requirements were maintained. No USQs or safety concerns are involved with this modification. No Technical Specification or UFSAR changes are required.

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: Once Through Steam Generators (OTSG)

Minor modification ONOE-12459 documents tube repairs in the 1A OTSG. The repairs include the removal of any existing plugs which might contain defects, and installation of stabilizers (as necessary) and plugs as required by the results of visual inspections (bubble or drip tests) and eddy current testing, and the tube stabilization criteria document. Presently there are 234 in-service sleeves installed in the 1A OTSG and 491 tubes plugged. Based on the information in TAC ONTC-0-100A-0001-001, there must be greater than 13,978 tubes (assuming a 10% plugging limit) available in each steam generator to meet core thermal-hydraulic design criteria. Following the completion of the repair activities performed under this modification, the TAC was re-evaluated using the revised plugging and sleeving numbers.

SAFETY EVALUATION SUMMARY

The inspections and repairs are done to ensure the integrity of the OTSGs. All the repair parts are QA condition 1 and will be no more likely to fail than the existing parts. Tube stabilization and plugging are accepted industry practices for removing heat exchanger tubes from service. Once the steam generator manways are closed up and secured the RCS pressure boundary of the steam generator is intact. This activity does not cause, or adversely affect the mitigation of, any previously analyzed SAR accidents. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No new failure modes are created. The OTSGs will continue to perform their design functions during normal and accident conditions. Based on the safety evaluation performed, no unreviewed safety questions are involved with these minor modifications. No changes to the Technical Specifications or the UFSAR are required.

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: Once Through Steam Generators (OTSG)

Minor modification ONOE-12460 documents tube repairs in the 1B OTSG. The repairs include the removal of any existing plugs which might contain defects, and installation of stabilizers (as necessary) and plugs as required by the results of visual inspections (bubble or drip tests) and eddy current testing, and the tube stabilization criteria document. Since the number of tubes plugged in the 1B OTSG during the outage resulted in the 10% plugging limit being exceeded, a revision to the Test Acceptance Criteria (TAC) ONTC-0-100A-0001-001, documented in OE-13587, was made to increase the plugging limit to 15%. This revision states that there must be greater than 13,201 tubes available in each steam generator to meet core thermal-hydraulic design criteria. During the ONS-1 EOC-18 outage, there were 189 tubes removed from service. Eight of these were sleeved tubes. Including the tubes plugged during ONS-1 EOC-18, there are a total of 1642 tubes removed from service and 178 sleeved tubes in service in the 1B steam generator. The current number of tubes plugged/sleeved in the 1B steam generator satisfies the requirements of the revised TAC limit of 15%.

SAFETY EVALUATION SUMMARY

The inspections and repairs are done to ensure the integrity of the OTSGs. All the repair parts are QA condition 1 and will be no more likely to fail than the existing parts. Tube stabilization and plugging are accepted industry practices for removing heat exchanger tubes from service. Once the steam generator manways are closed up and secured the RCS pressure boundary of the steam generator is intact. This activity does not cause, or adversely affect the mitigation of, any previously analyzed SAR accidents. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No new failure modes are created. The OTSGs will continue to perform their design functions during normal and accident conditions. Based on the safety evaluation performed, no unreviewed safety questions are involved with these minor modifications. No changes to the Technical Specifications or the UFSAR are required.

MINOR MODIFICATION (ONOE's)

DESCRIPTION

SYSTEM: High Pressure Injection (HPI)

Minor Modification ONOE-12474, procedure TN/1/A/12474/MM/01E and VN-12474B replaced the operator and changed the feeder breaker on valve 1HP-27 ('B' train isolation throttle valve) on Unit 1. This modification is solely to enhance the capability of the valve-operator combination to have sufficient margin to position valve 1HP-27 in its design safety position during a Design Basis Accident or Event.

SAFETY EVALUATION SUMMARY

The replacement of obsolete valves operators with newer more reliable devices that provide all required functions does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. No new accidents are created. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. All seismic environmental, and QA requirements were maintained. The new operators comply with GL 89-10 requirements. All Design Basis requirements were maintained. No USQs or safety concerns are involved with this modification. No Technical Specification or UFSAR changes are required (Pkg 99-69).

MINOR MODIFICATION (ONOE's)

DESCRIPTION

SYSTEM: AC Power – MCCs 1, 2XS1

ONOE's-12791 and 12843 replaced all the obsolete type CY motor starters in Units' 1& 2 safety related motor control centers (MCC) 1, 2XS1 with an equivalent type TM motor starter. In the past, the B-finger in some of the old motor starters has stuck in the open position, preventing valves from operating electrically. The problem appears to have been a design or aging problem associated with MOV starters. Most of the loads supplied by these motor starters are QA-1 and are required to function upon Engineered Safeguards (ES) signals to provide safety features during various plant modes of operation. TN/1, 2/A/12843/MM/01E provided implementation and controlled the isolation of the motor starters and their loads during installation. The removal of equipment from service was scheduled via the work control process with OPS involvement to ensure that the necessary equipment remained operational as required by Tech Spec. The procedure provides documentation of the removal of the existing and installation of the replacement motor starters using existing approved plant procedures. Installation and functional testing of all affected circuitry is documented within this procedure.

SAFETY EVALUATION SUMMARY

The replacement of obsolete components with newer more reliable devices that provide all required SAR described functions does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. No new accidents are created. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. The replacement components do not function differently than the existing components. The voltage pickup and dropout capabilities for the CY Starters are equivalent to the components that are to be replaced. The overload heaters, including the alarm overload, provide the protective features. The new components are compatible with the existing MCC components. The new components are QA-1, seismically and environmentally qualified. The applicable design and protective features for Onsite Power Systems and electrical separation criteria and component specifications, as specified in the UFSAR, are maintained. An electrical 10 CFR 50 Appendix R fire review was completed. There are no new safety/non-safety interfaces. The modification does not adversely affect the single failure protection of the components or systems that are supplied by the affected MCCs. The electrical components (fuses, breakers, cabling, etc.) and power supplies are adequate for the loads. Neither the modification, nor the procedure for the replacement of C-Y starters in the MCCs, involves an Unreviewed Safety Question. No Technical Specification changes are required. UFSAR Figure 8-4 was revised accordingly (Pkg 99-70)

MINOR MODIFICATION (ONOE's)

DESCRIPTION

SYSTEM: Meteorological Instruments

Minor modification ONOE-13075 upgraded the meteorological instrumentation and towers to enhance performance, reliability and maintainability.

SAFETY EVALUATION SUMMARY

All equipment involved is non-safety related. Regulatory Guide 1.97 commitments continue to be met. This change does not adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no change to plant setpoints, safety limits or design parameters. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 2.3.3.2 was revised accordingly (Pkg 99-71).

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: Once Through Steam Generators (OTSG)

Minor modifications ONOE's- 13213 and 13214 document tube repairs in the 2A and 2B OTSGs, respectively. The repairs include the removal of any existing plugs which might contain defects, and installation of stabilizers (as necessary) and plugs as required by the results of visual inspections (bubble or drip tests) and eddy current testing, and the tube stabilization criteria document. Presently there are 277 in-service sleeves installed in the 2A OTSG and 499 tubes plugged. Based on the information in TAC ONTC-0-100A-0001-001, there must be greater than 13,978 tubes (assuming a 10% plugging limit) available in each steam generator to meet core thermal-hydraulic design criteria. Following the completion of the repair activities (tube plugging/sleeving) performed under this modification, the TAC was re-evaluated using the revised plugging and sleeving numbers.

SAFETY EVALUATION SUMMARY

The inspections and repairs are done to ensure the integrity of the OTSGs. All the repair parts are QA condition 1 and will be no more likely to fail than the existing parts. Tube stabilization and plugging are accepted industry practices for removing heat exchanger tubes from service. Once the steam generator manways are closed up and secured the RCS pressure boundary of the steam generator is intact. This activity does not cause, or adversely affect the mitigation of, any previously analyzed SAR accidents. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways, or failure modes are created. No new failure modes are created. The OTSGs will continue to perform their design functions during normal and accident conditions. Based on the safety evaluation performed, no unreviewed safety questions are involved with these minor modifications. No changes to the Technical Specifications or the UFSAR are required.

MINOR MODIFICATION (ONOE's)

DESCRIPTION

SYSTEM: Low Pressure Injection (LPI)

Minor Modifications ONOE-13282 and 13284 replaced the existing SB Limatorque operators on valves 2LP-17 and 18 (LPI header isolations on Unit 2) with Rotork design. The new actuators are sized larger to accommodate new globe valves that were installed on Unit 2 under different modifications. This modification also installed new overload heaters, EGS Quick Disconnects, and changed the operating logic from open-close to throttle. This modification improves flow control and valve reliability.

SAFETY EVALUATION SUMMARY

The replacement of obsolete valves and operators with newer more reliable devices that provide all required functions does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. No new accidents are created. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. All seismic environmental, and QA requirements were maintained. The new operators comply with GL 89-10 requirements. All Design Basis requirements were maintained. No USQs or safety concerns are involved with this modification. No Technical Specification or UFSAR changes are required (Pkg 99-72).

MINOR MODIFICATION (ONOE's)

DESCRIPTION

SYSTEM: Low Pressure Injection (LPI)

Minor Modifications ONOE-13283 and 13285 replaced the existing 2LP-17 and 18 (LPI header isolations on Unit 2) Gate valves with a Globe design. This modification improves the ability of the valves to throttle in a post accident environment. Also, pressure locking relief is no longer required, and was deleted.

SAFETY EVALUATION SUMMARY

The replacement of obsolete valves and operators with newer more reliable devices that provide all required functions does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. No new accidents are created. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. There is no adverse effect on reactivity. No plant safety limits, setpoints or design parameters are adversely impacted. All seismic environmental, QA and Design Basis requirements were maintained. No USQs or safety concerns are involved with this modification. No Technical Specification or UFSAR changes are required.

MINOR MODIFICATION (ONOE's)

DESCRIPTION

SYSTEM: Fire Protection

Minor modification ONOE-13494 documents the installed fire barrier penetration seals configuration. This activity enhances legibility and detail of the fire barrier drawings, added each seal to the EDB database, and prompted a UFSAR change.

SAFETY EVALUATION SUMMARY

This minor mod ensures that each NRC committed penetration is in compliance with an approved tested design and had an equivalency evaluation. This activity did not change existing system design, construction, or operation. The revision did not result in any plant modifications, procedure changes, or other activities, which involved an unreviewed safety question. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. There is no change to plant setpoints, safety limits or design parameters. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No Technical Specification changes were required. UFSAR sections 9.5.1.4.3 and 9.6.6 were revised accordingly (Pkg 99-73).

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: Once Through Steam Generators (OTSG)

Minor modification OE-13587 documents a revision to the Test Acceptance Criteria (TAC) sheet on Steam Generator (SG) tube plugging, ONTC-0-100A-0001-001. The TAC was revised to decrease the number of effective tubes required to be in service to 13,201, which equates to 15% of the tubes being plugged in each SG. Previously, the TAC sheet stated that a minimum of 13,978 effective tubes per steam generator (10% plugged) are to be in service.

SAFETY EVALUATION SUMMARY

A detailed safety evaluation of the increase from 10% to 15% limit on tube plugging was performed in Oconee Nuclear Station calculation OSC-3630 Rev. 2. This revision evaluated the effects that 15% tube plugging has on RCS flow and the subsequent impact on minimum departure from nucleate boiling ratio (DNBR). Additionally, it evaluated each of the UFSAR Chapter 15 accidents for both reduced RCS inventory and reduced primary-to-secondary heat transfer area. It was determined that sufficient Reactor Coolant System (RCS) flow is still available to meet core thermal-hydraulic design criteria with 15% of the tubes being plugged. Therefore, this activity does not cause, or adversely affect the mitigation of, any previously analyzed SAR accidents. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No new failure modes are created. The OTSGs will continue to perform their design functions during normal and accident conditions. Based on the safety evaluation performed, no unreviewed safety questions are involved with this change. No changes to the Technical Specifications or the UFSAR are required.

MINOR MODIFICATION (ONOE's)

DESCRIPTION

SYSTEM: Standby Shutdown Facility (SSF)

Minor modification ONOE-13685 enhanced, clarified and updated the SSF general arrangement and architectural drawings.

SAFETY EVALUATION SUMMARY

This minor mod ensures that the SSF controlled drawings reflect the as-built plant. This activity did not change existing system design, construction, or operation. The revision did not result in any plant modifications, procedure changes, or other activities, which involved an unreviewed safety question. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. There is no change to plant setpoints, safety limits or design parameters. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No Technical Specification changes were required. UFSAR Figures 9-30, 31, 32, 33, and 34 were revised accordingly (Pkg 99-74).

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: Containment & LPI

ONOE-14017 revises plant documentation to consistently reflect the containment mitigation strategy for penetration 62 as described within UFSAR Table 6-7 and Figure 6-9. The containment barrier strategy for penetration 62 (Unit 2 & 3) was changed to be consistent with its counterpart penetration 57 (Unit 1). The strategy for containment isolation for penetration 62 was changed to credit LP-3 as the containment barrier.

SAFETY EVALUATION SUMMARY

Valves 2LP-3 and 3LP-3 are QA Condition 1, seismically qualified, environmentally qualified, and ISI classified as B. With respect to containment design bases, the ability of penetration 62 to meet the requirements set forth within the SAR will not be eliminated by this activity. These changes to the SSC descriptions to facilitate agreement with the as-built plant do not cause, or adversely affect the mitigation of, any previously analyzed SAR accidents. There are no physical changes to the facility or operating procedures. No new radiological release pathways or failure modes are created. The systems will continue to perform their design functions during normal and accident conditions. The overall containment isolation system design, function, performance and integrity are not affected by these changes. There are no USQs associated with this activity. No Technical Specification or UFSAR revisions are required.

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: High Pressure Service Water (HPSW)

Minor modification ONOE-14021 revised the UFSAR and design documents to clearly state that the HPSW interconnections to the Low Pressure Service Water (LPSW) pumps discharge are not used. Also, valves HPSW-10 and HPSW-13 were changed to normally closed. Each interconnection associated with the HPSW supply to LPSW contains two isolation valves, but no vents or drains. Therefore, the piping cannot be periodically flushed to remove debris without potentially flushing debris into the LPSW headers. Since the LPSW system for Units 1 and 2 is shared and is never removed from service, there is no situation that would allow this piping to be flushed without putting debris into the operating LPSW system. Additionally, if HPSW were used to supply the LPSW headers directly, the lower capacity of the HPSW pumps would result in depletion of the Elevated Water Storage Tank (EWST) inventory. If the HPSW pumps were not available due to loss of AC power, the EWST would be depleted within minutes. Once the EWST was depleted, the HPSW system could not supply vital cooling water to the HPI pump motor coolers or the TDEFWP oil coolers. By eliminating the use of the HPSW supply to LPSW, the EWST inventory is preserved to serve its functions as described in the UFSAR.

SAFETY EVALUATION SUMMARY

A risk assessment review was conducted, and it was determined that there is no significant change in core damage frequency if this function is not used. These changes do not have any effect on accident initiation. Eliminating the use of HPSW to supply LPSW during a loss of LPSW may actually decrease the probability of malfunction of equipment. Use of this interconnection during certain events would result in depletion of the EWST inventory, which is needed for other higher priority functions. The HPSW and LPSW Systems will continue to be capable of performing their required functions. The UFSAR already states that the HPSW supply to LPSW is not credited to mitigate any design basis accident or design event. There are no adverse effects on containment integrity, radiological release pathways, fuel design, filtration systems, MSR/V relief setpoints, or Radwaste systems. No new types of accidents or failure mechanisms are postulated. The system will continue to be operated within its existing design parameters for flow, temperature and pressure. This change involves no physical modifications to the plant. These changes do not require a change to Technical Specifications or involve an unreviewed safety question. UFSAR Section 9.2.2.2.3 and Figure 9-10 were updated accordingly.

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: Siphon Seal Water (SSW)

Minor modification ONOE-14058 revised OM-240-160-001 to allow the use of a 20 mesh (0.034" or 0.864 mm) SSW strainer basket. The OM previously only allowed the use of a 100 mesh (0.0055" or 0.14 mm) basket. However, the SSW Strainers clogged at too high a rate. The GRP EHS Aquatic Ecology Department of Duke Energy determined that an increase in the strainer hole size to 0.5 mm would eliminate 75-90% of the impinged material based on what was observed from previous strainer basket samples.

SAFETY EVALUATION SUMMARY

A decrease in SSW Strainer mesh size from 100 mesh to 20 mesh will not adversely affect the flow characteristics through the strainer. The dP at a given flow rate is not increased nor is the burst pressure reduced. SSW flow to the CCW pumps is not required, and thus no accident mitigation function of the CCW pumps is adversely affected. Sand influx is not considered a credible event based on historical Keowee Lake monitoring and trending. Based on recent lake sampling and historical data, the majority of the lake water particulate is zooplankton with a minimal amount of large, hard particles. Any ESV Pump degradation (unexpected) would be a long term phenomena detectable by testing over a period of years. These changes have no effect on accident initiation or mitigation. There are no adverse effects on containment integrity, radiological release pathways, fuel design, filtration systems, MSR/V relief setpoints, or Radwaste systems. No new types of accidents or failure mechanisms are postulated. The SSW, ESV, and CCW systems will continue to be operated within its existing design parameters for flow, temperature and pressure. These changes do not require a change to Technical Specifications or involve an unreviewed safety question. No UFSAR changes are required.

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: Reactor Building Spray (RBS)

Minor Modification OE-14087 blanked off the piping at the inlet to valve 2BS-7 and at the outlet of valve 2BS-9 on Unit 2. This activity permanently renders inoperative the capability of aligning the RBS System suction piping to the discharge piping of the LPI Coolers. The modification eliminated a potential radioactive leakage path between LPI and BS systems while operating in the piggyback mode.

SAFETY EVALUATION SUMMARY

This modification does not change or degrade the BS, HPI, and LPI System functions. The RBS Pumps will continue to draw suction from the BWST or Reactor Building Emergency Sump as they are designed to do. All system leakage requirements are maintained. These changes to the UFSAR SSC descriptions to facilitate agreement with the modified as-built plant do not cause, or adversely affect the mitigation of, any previously analyzed SAR accidents. No new radiological release pathways or failure modes are created. There is no change to plant setpoints, safety limits or design parameters. There are no reactivity management concerns. The affected systems will continue to perform their design functions during normal and accident conditions. There are no USQs associated with this activity. No Technical Specification changes are required. UFSAR Table 6-2, Figures 6-1, 6-2 and 9-19 were revised accordingly.

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: CCW, ASW

Minor Modification ONOE-14158 provided changes to UFSAR Section 3.2.2 and the Design Basis Document (DBD) per OSC-0864 Rev. 2. The fourth paragraph of 3.2.2 was changed to read: "An external source of cooling water is not immediately required due to the large quantities of water stored underground in the intake and discharge CCW piping. The stored volume of water in the intake and discharge lines below elevation 791 ft would provide sufficient cooling water for all three units for approximately 37 days after trip of the three reactors." Deleted:

"Intake and discharge lines below 791 ft	37 days
Intake lines only below elevation 791 ft	17 days
Intake and discharge lines below elevation 775 ft	78 hours
Intake lines only below elevation 775 ft	51 hours"

SAFETY EVALUATION SUMMARY

This activity clarifies and deletes extraneous references to Condenser Circulating Water (CCW) inventories (and associated DHR times) specified for Tornado and Loss of Lake Keowee events. The bounding criteria is the available static inventory in the CCW Intake and Discharge piping below 791 ft elevation that is adequate to supply decay heat removal via Steam Generator boil off for three Oconee Units for a period of 37 days. This change provides clarity and consistency between the SER, UFSAR, DBD's and supporting Calculation regarding the "time period" of available CCW Intake and Discharge inventory and associated DHR times for Auxiliary Service Water (ASW) System operation for Tornado and Loss of Lake Keowee event mitigation. The design basis of the units is unchanged. This change does not create any adverse effects concerning the operation of the ASW System, because the bounding CCW inventory requirement for DHR and NPSH remains unchanged. The activity does not change the operation of the CCW or ASW Systems as described in the SAR. This activity does not create any conditions or events that lead to new or previously evaluated accidents. There is no adverse affect on core decay heat removal or containment integrity and no new release paths are created. There are no physical changes to the facility or operating procedures. This activity involves no USQ's or safety concerns. No Technical Specification changes are required. UFSAR Section 3.2.2 was revised accordingly.

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: BWST, HPI, LPI, BS

ONOE's-14239, 14240, & 14241 were performed on all three units to change the LP BWST Emergency Low Statalarm to match the BWST water level (9 feet) at which swapover occurs within the emergency procedure. The previous setpoint of the LP BWST Emergency Low Statalarm was 7 feet. This change was made to increase the setpoint of this alarm to 9 feet. Additionally, there is a BWST lo-lo computer alarm that provides indication of decreasing BWST level. The previous setpoint for the computer alarm was 10 feet. A change was made to increase the setpoint of the lo-lo BWST computer alarm to 19 feet.

The emergency procedures were revised to increase the BWST level at which operator actions are taken to begin the swap of the suction supply of the low pressure injection (LPI), building spray (BS), and high pressure injection (HPI) systems from the BWST to the RBES. The EOPs were revised to ensure that necessary actions were taken to mitigate design basis accidents with the occurrence of associated single failures. Analyses determined that the BWST level at which the swapover to sump recirculation begins must be increased to ensure sufficient operator time to perform the necessary operator actions to mitigate postulated design basis accidents. These minor mods support those procedure changes.

SAFETY EVALUATION SUMMARY

The BWST heaters are interlocked such that the heaters de-energize upon actuation of the BWST Emergency Low Statalarm. With this change, the BWST heaters will de-energize at a BWST level of 9 feet rather than the previous level of 7 feet. The BWST heaters are not safety related and do not perform any safety function during an accident. Therefore the change in setpoint at which the BWST heaters de-energize does not affect the ability of the LPI system (including BWST) to perform its safety function.

The increase in the BWST level at which the swap from the BWST to the RBES occurs does not adversely affect to the ability of operators to perform actions necessary within the emergency procedure. Actions to ensure that adequate water level is transferred from the BWST to the RBES are not changed by this activity. Therefore, no adverse effects on the operation of the BS, LPI, and HPI systems are deemed credible with this activity. These alarm setpoint changes do not cause, or adversely affect the mitigation of, any previously analyzed SAR accidents. No new radiological release pathways or failure modes are created. There are no USQs associated with this activity. No Technical Specification or UFSAR revisions are required.

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: Reactor Building

Minor Modification ONOE-14610 involves changes to UFSAR Section 7.5.2.42. This section describes the configuration of the reactor building ambient air thermocouples on Unit 3. The activity evaluated a current failure of the reactor vessel ambient air thermocouple element to the OAC and the possibility of a duplicate failure on the adjacent thermocouple element feeding the Unit 3 Control Room chart recorder.

SAFETY EVALUATION SUMMARY

Twelve air temperature thermocouples for the Reactor Building remain available for Unit 3 versus thirteen for Units' 1 & 2. This number has been evaluated as acceptable to perform the intended function. This change does not cause, or adversely affect the mitigation of, any previously analyzed SAR accidents. No new radiological release pathways or failure modes are created. No design basis or safety functions of any structure, system or component are adversely affected by these changes. Operating procedures are not adversely affected by this modification. No USQs or safety concerns are created by this change. No Technical Specifications changes are required. Section 7.5.2.42 of the UFSAR (Pkg 99-158) was revised accordingly.

III. TEMPORARY MODIFICATIONS (TSMs)

DESCRIPTION

SAFETY EVALUATION SUMMARY

SYSTEM:

None

IV. PROCEDURES

DESCRIPTION

SYSTEM: Reactor Coolant System (RCS), CFT

This safety evaluation supports Chemistry procedure CP/1,2,3/A/2002/001, Revisions 35, 30, & 42 respectively. This change added specific instructions to steps taken during sampling core flood tanks (CFTs) with known in-leakage to the tank. A feed and bleed of 575 gallons of water through the tank will mix the contents and give reliable boron values. A sign off step to verify the condition, prior to sampling, was also placed in the procedure. Some other minor editorial type changes were also made to the procedure for enhanced clarity.

SAFETY EVALUATION SUMMARY

This change incorporates new controls for CFT sampling to improve accuracy. This activity does not in any way increase the likelihood of initiation or adversely affect the mitigation of any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no physical change to the plant. There is no adverse effect on reactivity. No plant safety limits, setpoints, or design parameters are adversely impacted. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. No UFSAR changes are required.

PROCEDURES

DESCRIPTION

SYSTEM: Reactor Coolant System (RCS),

This safety evaluation supports Chemistry procedure CP/0/A/2002/004E, Revision 10. This change requires having a dedicated person to operate containment isolation valves (RC-162, 163, 164, and 165) in the event of an ES actuation while sampling.

SAFETY EVALUATION SUMMARY

This change incorporates new conservative controls for sampling. This activity does not in any way increase the likelihood of initiation or adversely affect the mitigation of any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no physical change to the plant. There is no adverse effect on reactivity. No plant safety limits, setpoints, or design parameters are adversely impacted. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. No UFSAR changes are required.

PROCEDURES

DESCRIPTION

SYSTEM: Reactor Coolant System (RCS),

This safety evaluation supports Chemistry procedure CP/0/B/2002/10, Revision 18. This change incorporates steps for two additional methods of adding of hydrogen peroxide to the RCS to scavenge residual hydrogen.

SAFETY EVALUATION SUMMARY

This procedure allows for the proper control of plant chemistry. This activity does not in any way increase the likelihood of initiation or adversely affect the mitigation of any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no physical change to the plant. There is no adverse effect on reactivity. No plant safety limits, setpoints, or design parameters are adversely impacted. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. No UFSAR changes are required.

PROCEDURES

DESCRIPTION

SYSTEM: Nuclear Fuel, SFP

This safety evaluation supports Chemistry procedure CP/0/B/2002/046. This new procedure controls activities associated with the ISFSI Orbisphée hydrogen skid. The skid monitors hydrogen off gas of the fuel during dry cask storage canister welding operations to ensure the concentration remains below 4% flammability limit. This procedure covers system manipulations, calibration, and periodic maintenance.

SAFETY EVALUATION SUMMARY

This procedure allows for the proper control of hydrogen gas concentrations during dry cask storage loading activities in the SFP areas. This activity does not in any way increase the likelihood of initiation or adversely affect the mitigation of any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no physical change to the plant. There is no adverse effect on reactivity. No plant safety limits, setpoints, or design parameters are adversely impacted. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. No UFSAR changes are required.

PROCEDURES

DESCRIPTION

SYSTEM: Emergency Core Cooling (ECCS)

This safety evaluation supports Emergency procedures (EP/1/A/1800/001 change 28b, EP/2/A/1800/001 change 30b, EP/3/A/1800/001 change 28b) revisions to incorporate the following changes in the mitigation strategy associated with the Low Pressure Injection (LPI), High Pressure Injection (HPI), Core Flood (CF), and Building Spray (BS) systems:

- Revision of actions associated with HPI pump minimum recirculation flow path
- Revision of the operation of LPI pumps and headers
- Revision of the alignment of the LPI to HPI Piggyback supply valves (LP-15 & 16)
- Revision of actions necessary to maintain the controllability of LPI injection flow
- Addition of actions to ensure that BS-1 and BS-2 are opened (manually or remotely)
- Earlier throttling of BS pumps and a lower flow rate for throttling
- Procedure changes to stream line the execution of the emergency procedures
- Revision of HPI termination criteria

SAFETY EVALUATION SUMMARY

The overall effects of the combined changes to the emergency operating procedures were evaluated to be within the limits required by safety analyses with respect to postulated environmental conditions, containment responses, core integrity, and radiological effects. The changes were determined to be within the capability of being accomplished within the time frames required by safety analyses. Therefore, this activity does not operate systems outside of their capability or licensing bases. This activity does not increase the likelihood of initiation or adversely affect the mitigation of any SAR described accidents. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. This change does not increase the possibility or consequences of any SAR evaluated accidents or create any new accidents or failure modes. There is no effect on reactivity. No plant safety limits are adversely impacted. Based upon the considerations documented in this evaluation, these changes to procedure EP/1,2,3/A/1800/01 involve no unreviewed safety question or safety concerns. No UFSAR, Technical Specification, or Selected Licensee Commitment changes are required.

PROCEDURES

DESCRIPTION

SYSTEM: High Pressure Injection (HPI)

This safety evaluation supported troubleshooting procedure IP/0/A/0100/01 that was used to set the limit switches on valve 3HP-14 after it failed to control properly. Repair efforts to replace a failed coupling were completed using existing maintenance procedures. The evolution was performed with the motor power breaker closed (with the valve actuator "hot"). Power was only isolated long enough to facilitate removal of the limit switch access cover for switch adjustment and then again to re-install the access cover.

SAFETY EVALUATION SUMMARY

The normal feed and bleed controls provide no emergency function. For time periods in which light indications were not available to 3HP-14 (i.e. 3XL – 5D breaker open), appropriate precautions ensured that dilution of the RCS boron concentration was not performed. The isolation valves associated with letdown and makeup from the RCS are not affected by this activity. This activity does not affect the pressure boundary associated with the RCS or any controls which could cause an accident initiation. No new radiological release pathways or failure modes are created. This procedure does not adversely affect any plant safety limit, set point, or design parameter. Additionally, this procedure does not adversely impact the fuel, fuel cladding, RCS, or containment integrity. Therefore there is no reduction in the margin of safety as defined in Technical Specifications. Based upon the considerations documented in this evaluation and the responses to the seven standard questions, this activity involves no unreviewed safety question or safety concerns. No UFSAR, Technical Specification, or Selected Licensee Commitment changes are required.

PROCEDURES

DESCRIPTION

SYSTEM: Nuclear Fuel, Fuel Handling

This safety evaluation supports a change to MP/0/A/1500/012 - Rev. 009 Functional Check of the Fuel Transfer System__and MP/0/B/1500/009 - Rev 19 Defueling/Refueling Procedure to proceduralize the installation and removal of a jumper across the "open" indication switch for the Unit 1 and 2 fuel transfer tube isolation valves, valves (1)(2)SF-1 and (1)(2)SF-2. The limit switches for these valves failed, and could not be repaired in a timely manner. Unit 3 uses a different limit switch design. However, a temporary resolution was needed prior to the upcoming outage. The valves provide single isolation of the fuel transfer tubes from the spent fuel pool, and must be open to allow passage of the fuel transfer carriage through the valve body. To prevent the possibility of interference between the valve and the transfer carriage, the carriage control circuitry is interlocked to prevent travel unless valve open indication is present. Pending long term resolution, jumpers are temporarily installed across the valve open switches for use of the carriages during refueling operations. The procedures revised are the only ones that address operation of the transfer carriages. Procedural controls were added to prevent carriage travel without the valves being open. The jumpers are installed following visual verification (using underwater video cameras) that the respective valve is open (following transfer canal fill), and removed prior to closing the valves. The refueling procedures verify the valves open whenever the carriages are operated.

SAFETY EVALUATION SUMMARY

These procedure changes simply install temporary administrative controls to ensure that the fuel handling systems are operated in a safe and effective manner until a permanent physical modification can be implemented. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification or UFSAR changes are required as a result of these procedure changes.

PROCEDURES

DESCRIPTION

SYSTEM: Control Room Area Cooling (CRAC)

This safety evaluation supports a change to MP/0/A/3007/048 to identify the entry and exit from the LCOs required by ITS 3.7.16 and 3.7.9 to perform preventative maintenance. A contingency plan was also added to address the actions to be taken if the operating air handling unit fails during the procedure.

SAFETY EVALUATION SUMMARY

This activity is largely editorial clarification to ensure compliance with the applicable Tech Specs. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification or UFSAR changes are required as a result of this procedure change.

PROCEDURES

DESCRIPTION

SYSTEM: Chilled Water (WC)

This safety evaluation supports a temporary change MP/0/A/3007/050A to facilitate installation of a temporary chiller to cool the WC system. The WC Chilled Water System provides cooling to various Air Handling Units for the Control Room Zones and the Administration Building. Two trains of WC system components are installed to meet the requirements of Technical Specification 3.7.16. This Technical Specification also allows use of a temporary chiller. This change provides instructions for testing the temporary chiller system with only the trailer mounted pump to supply flow for the system. Steps to install and operate the temporary chiller exist in this procedure, but this change allows stopping the installed WC system pump under test conditions. With the temporary chiller in service in accordance with the procedure the installed WC pump and the trailer mounted pump run in series. Stopping the installed WC system pump allows a determination of whether the trailer mounted pump can maintain required system flow alone. After the temporary chiller is placed in service according to the procedure and the system is stable, steps were added to stop the operating installed WC system pump ('A' or 'B') and observe system operation. If monitored parameters indicate the trailer mounted pump is not operating within acceptable parameters or the system is not being supplied sufficient flow, the installed WC pump is restarted. If the system and trailer mounted pump are performing within acceptable parameters, the remainder of the test will be completed without operating a WC pump. Recovery from the steps added by this change is to restore the WC pump to operation.

SAFETY EVALUATION SUMMARY

If the WC system fails to operate without the installed pump, one of the two WC pumps can be restored in much less time than required by accident analyses (Ref. OSC-7141). Both chillers remain operable during this activity since either could be started upon demand. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification or UFSAR changes are required as a result of this procedure change.

PROCEDURES

DESCRIPTION

SYSTEM: Penetration Room Ventilation (PRVS)

This safety evaluation supports a change to OP/0/A/1104/016 to not require opening of valve 3PR-20 in the event of a Unit 3 PRVS fan failure. This action is not required. 3PR-68 must be opened to place the hydrogen recombiner into service post-accident. However, it is not required to be opened for at least 7 days into the event

SAFETY EVALUATION SUMMARY

Removal of this statement from the OP simply allows an operability evaluation to be entered in the event of a failure of AHU 3-9 rather than an immediate plant shutdown. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification or UFSAR changes are required as a result of this procedure change.

PROCEDURES

DESCRIPTION

SYSTEM: Low Pressure Injection (LPI)

This safety evaluation supports Revision 099 of Low Pressure Injection procedure OP/2/A/1104/04 which provides instructions to align the BWST recirculation crossover piping as one method of providing decay heat removal during No Mode, Mode 6, or Mode 5 operation.

SAFETY EVALUATION SUMMARY

All SAR requirements with respect to the Low Pressure Injection System are fully satisfied. A required engineering analysis assured adequate decay heat removal is available prior to any valve system manipulations being performed. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification or UFSAR changes are required as a result of this procedure change.

PROCEDURES

DESCRIPTION

SYSTEM: Penetration Room Ventilation (PRVS)

This safety evaluation supports a change to OP/0/A/1104/041 to not require an immediate plant shutdown in the event of a failure of AHU 3-9.

SAFETY EVALUATION SUMMARY

Removal of this statement from the OP simply allows an operability evaluation to be entered in the event of a failure of AHU 3-9 rather than an immediate plant shutdown. Testing and engineering evaluation have shown that dose limits would not be compromised with one train of the Unit 3 PRVS operating and AHU 3-9 off. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification or UFSAR changes are required as a result of this procedure change.

PROCEDURES

DESCRIPTION

SYSTEM: RBS, LPI, HPI

This safety evaluation supports changes station procedure PT/0/A/1102/01 and rev.1 to operate at power with the Reactor Building Spray (BS) header isolation valves normally open and the downstream header drain valves closed. This change is necessary to support operation of the Low Pressure Injection and High Pressure Injection systems in the "piggyback" mode of operation. The change resolves a concern with the pressurization of the suction piping of the LPI and BS systems and resultant creation of a leakage path for post accident sump water outside of the ECCS and BS system boundaries.

SAFETY EVALUATION SUMMARY

The change does not impair the capability of the BS system to perform its accident mitigation function, since the required accident mitigation function for the header isolation valve requires this valve to be in the open position. The system will continue to meet its licensing basis requirements for single failure, containment isolation, and testability. The change does not have any adverse effects on other systems. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. This change was ultimately only required temporarily, therefore no UFSAR changes are necessary.

PROCEDURES

DESCRIPTION

SYSTEM: Low Pressure Service Water (LPSW)

This safety evaluation is for Rev. 9 to PT/2/A/0251/023, "LPSW System Flow While Simulating Accident Conditions Test." The activity is to: (1) verify LPSW flow conditions while simulating accident conditions, (2) verify or set travel stop positions for cooler outlet valves, (3) verify throttling capability of associated LPSW valves, (4) obtain performance data for 2 LPSW-251, and (5) demonstrate the Unit 1&2 LPSW pumps can take suction siphon from the Unit 2 ECCW siphon.

SAFETY EVALUATION SUMMARY

These changes to the procedure simply facilitate and enhance the system flow test. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. The LPSW system can still fulfill all its cooling requirements (LPI, RBCUs, RCP coolers, etc.). The LPI pumps will not cavitate during performance of the test. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. There is no change to plant setpoints, safety limits or design parameters. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification or UFSAR changes are required as a result of this procedure.

PROCEDURES

DESCRIPTION

SYSTEM: Control Components

This safety evaluation supports Temporary Maintenance Procedure TM/2/A/1140/001 that performed drag force testing on Control Rod Assemblies during Unit 2 EOC17 RFO. The procedure is for obtaining data to determine the amount of frictional resistance of a control rod assembly contained within a fuel assembly. The data was obtained to aid the investigation of an incomplete control rod insertion event identified at TMI during performance of their Fall 1999 refueling shutdown control rod trip time test. Drag forces on the control rod are obtained by withdrawing the control rod while attached to the leadscrew of its respective Control Rod Drive Mechanism. The standard tool for parking the leadscrew (raising the leadscrew to its withdrawn position to allow reactor head removal) is used to raise the leadscrew and attached control rod. A load measuring device attached between an overhead hoist and the lifting tool used to obtain the data. Only one control rod is withdrawn at a time, and the amount of travel is limited to prevent damage to the control rod, CRDM, or associated fuel assembly, should the leadscrew be dropped

SAFETY EVALUATION SUMMARY

Data is obtained with the reactor shutdown in Mode 5 or 6, with RCS boron concentration meeting Mode 6 requirements, prior to reactor vessel head removal. The conditions involved require the reactor coolant system to be depressurized, and allow the vessel level to be at mid loop conditions. The limited amount of withdrawal maintains the control rod sufficiently covered to prevent increased radiation exposure to personnel. A licensed Senior Reactor Operator is stationed in the reactor building to oversee the evolution, since movement of a control rod constitutes a change in core reactivity. Direct communication between the SRO and control room personnel is established to ensure monitoring of nuclear instrumentation during control rod motion. The control room also verifies that two source range nuclear instruments are operable, and that no other positive reactivity additions are in effect during performance of the procedure. Reactor Coolant System boron concentration is maintained to assure the required shut down margins. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification or UFSAR changes are required as a result of this procedure change.

PROCEDURES

DESCRIPTION

SYSTEM: Penetration Room Ventilation (PRVS)

This safety evaluation supports procedure TT/3/A/0110/022 to evaluate options that might eliminate the adverse interaction between the Unit 3 PRVS and the PEER with AHU 3-9 off and to examine the effects of a simulated loss of switchgear TC. The test manipulates doors and/or exhaust louvers that may make the PRVS system (one train operating) able to maintain a vacuum with respect to all adjacent Auxiliary Building zones with AHU 3-9 off and in a simulated loss of switchgear TC configuration. A modification may then be initiated to make permanent the test conditions that proved to be the most effective.

SAFETY EVALUATION SUMMARY

This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification or UFSAR changes are required as a result of this test procedure.

PROCEDURES

DESCRIPTION

SYSTEM: Penetration Room Ventilation (PRVS)

This safety evaluation supports procedure TT/3/A/0110/023 to evaluate options that might eliminate the adverse interaction between the Unit 3 PRVS and the PEER with AHU 3-9 off. The test temporarily seals off the exhaust louvers in the Unit 3 Purge Exhaust Equipment Room and operates a variety of Auxiliary Building Exhaust Fan combinations. Test results are examined to determine which combinations are most effective with maintaining vacuum to adjacent Auxiliary Building zones with AHU 3-9 off. A modification may then be initiated to make permanent the test conditions that proved to be the most effective.

SAFETY EVALUATION SUMMARY

This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification or UFSAR changes are required as a result of this test procedure.

PROCEDURES

DESCRIPTION

SYSTEM: Low Pressure Injection (LPI)

This safety evaluation supports test procedure, TT/2/A/0150/055, "2LP-17 & 18 Flow Verification Test," to determine the performance of LPI Injection valves, 2LP-17 & 18, under flow conditions. During the test alignment the valves are manually throttled to various flow rates and valve position is recorded. The valves are then remotely throttled to various flow rates from the control room to assess the valves' remote throttling capability.

SAFETY EVALUATION SUMMARY

The procedure is written to ensure that total LPI flow does not exceed flow rates that could cause the LPI or SF pumps to have inadequate Net Positive Suction Head (NPSH). The LPI flow is controlled to preclude pump run-out or suction voiding. Technical Specification 3.9.4 (DHR Mode 6) allows for operating Decay Heat Removal (DHR) train to be removed from service for 1 hour every 8 hours. This TT provides direction to ensure DHR capability is maintained through out the test and contingency guidance to ensure that this 1-hour requirement is met in case all LPI flow is inadvertently isolated during this test. Also, Abnormal Procedure AP/2/A/1700/026 (Loss of Decay Heat Removal) addresses the equipment required if LPI were to be lost during Mode 6. This TT also inherently ensures that Site Directive 1.3.5 (Shutdown Protection Plan) is met. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification or UFSAR changes are required as a result of this procedure change.

PROCEDURES

DESCRIPTION

SYSTEM: Turbine Generators

This safety evaluation supports procedure TT/0/A/0150/056 that performs a test to fully close the Main Turbine Stop Valves, Turbine Control Valves, and Reheat Stop Valves/Intercept Valves. This test assures these valves will perform their intended closure functions in case of a turbine overspeed event. This test provides input into a permanent test that is performed at the turbine manufacturer's recommended quarterly frequency.

SAFETY EVALUATION SUMMARY

Procedural limits on OTSG feedwater flow and % power, along with symmetric testing of the Main Steam Stop Valves ensure that OTSG tube damage does not occur. All plant equipment and systems will be operated within their design basis limits at all times during this test. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification or UFSAR changes are required as a result of this procedure change.

PROCEDURES

DESCRIPTION

SYSTEM: Low Pressure Service Water (LPSW)

This safety evaluation is for Rev. 1 to procedure TT/2/A/0150/057, "2LP-17 & 18 Flow Verification Test." This activity determines the performance of the LPI injection valves under flow conditions. The required Unit status is Mode 5 or 6.

SAFETY EVALUATION SUMMARY

The test is written to ensure the total LPI flow does not exceed that which could cause pump run-out, and limits the time a pump is run against shutoff head. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. There is no change to plant setpoints, safety limits or design parameters. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification or UFSAR changes are required as a result of this procedure.

PROCEDURES

DESCRIPTION

SYSTEM: ECCW, ESV, LPSW

This safety evaluation supports new procedure (TT/3/A/0261/014) that is used to test the Emergency Condenser Circulating Water (ECCW) System, including the Essential Siphon Vacuum (ESV) System support function. This test is required by Technical Specification SR 3.7.8.9. The SAR already addresses that an unusual configuration exists during this test. Technical Specification SR 3.7.8.9 explicitly requires that the LPSW pumps take suction from the siphon during the air in-leakage testing. The Bases section for SR 3.7.8.9 discusses this requirement in detail and was modified as a result.

SAFETY EVALUATION SUMMARY

During this test, the CCW pumps have anti-rotation devices installed, thus preventing the pumps from operating. The testing activities associated with the ECCW System cannot cause any of the accidents evaluated in Chapter 15 of the UFSAR. The ECCW System is involved with mitigation of a LOCA/LOOP or other LOOP events. No postulated accidents are affected by this test procedure. The CCW System, ESV System, and LPSW System are operated within their design bases, as described in the SAR. There are no adverse effects on containment integrity, radiological release pathways, fuel design, filtration systems, MSR/V relief setpoints, or Radwaste systems. Therefore, the consequences of an accident evaluated in the SAR are not increased. No new types of accidents or failure mechanisms are postulated. This change does not change the physical design of the system. The LPSW, CCW, and ESV Systems will continue to be operated, tested, and maintained as described in the SAR. The systems will continue to be operated within their existing design parameters. No new malfunctions are postulated. This change involves no physical modifications to the plant or changes in operating characteristics or procedures. The change involves no relaxation of seismic, environmental, or QA requirements. There are no concerns associated with reactivity management. The change does not affect any safety limits or limiting safety system settings. No plant safety limits, setpoints, or design parameters are adversely affected. There is no impact to the nuclear fuel, cladding, Reactor Coolant System (RCS), or containment integrity. This change does not require a change to Technical Specifications. The proposed change does not involve an unreviewed safety question. The Tech Spec Bases section for SR 3.7.8.9 was changed accordingly.

PROCEDURES

DESCRIPTION

SYSTEM: Condensate

This safety evaluation supports TT/3/B/3002/001, "Controlling Procedure for the Functional Testing of the Unit 3 Powdex Control Panel," (Digital Control of the Powdex System). This procedure was developed to test the installation of NSM 32981. The testing included calibrating transmitters, string checks (check from transmitters to CRT display), testing of interlocks, testing of Powdex cell filling, backwashing, and precoating and flow balance/tuning. The testing of this system verified functionality of the newly installed equipment.

SAFETY EVALUATION SUMMARY

Because the Powdex system is non-nuclear safety related, the testing of this system is also non-nuclear safety related and has no impact on the safe operation of the plant. The Powdex system is not an accident mitigation system and the testing associated with NSM 32981 does not have any adverse effect on postulated accident scenarios. The Condensate and Feedwater systems continue to be protected from Powdex system malfunctions by the automatic bypass system. The bypass system is not be modified as part of this NSM and continues to function as designed throughout the testing process. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification or UFSAR changes are required as a result of this procedure change.

V. OPERABILITY EVALUATIONS

DESCRIPTION

SYSTEM: LPSW, LPI

This safety evaluation was performed per PIP 99-1302 to support the compensatory actions associated maintaining the Low Pressure Service Water (LPSW) System in an Operable But Degraded Condition. LPSW serves as the heat sink for the Low Pressure Injection (LPI) system. Valves LPSW-251 and 252 are the normal LPI Cooler flow control valves. Recent stroke testing indicated the valves have excessive torque that could cause them not to fail open in the safe position. Therefore, the valves were removed from auto and placed in the failed open position to ensure cooling water will be available to the LPI coolers. Thus, the valves are no longer active until they can be repaired at a refueling outage.

SAFETY EVALUATION SUMMARY

The accident mitigation capability of the LPSW system is unaffected by the valves being failed open to the travel stops. Valves LPSW-4 and 5 can also be used to control heatup and cooldown rates during normal shutdown and startup. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification or UFSAR changes are required as a result of this compensatory measure.

VI. SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: None

This safety evaluation was performed to address the changes required to the Selected Licensee Commitment Manual associated with the conversion to the Improved Technical Specifications (ITS). The changes involve relocation of existing TS requirements to the SLC manual and conversion of the existing SLCs to the ITS format. The relocations were approved per License Amendment 300,300,300. The other changes are largely editorial or administrative in nature and add clarity and consistency between the SLCs and the ITS.

SAFETY EVALUATION SUMMARY

This change makes the SLCs more consistent with the ITS Submittal, its supplements, and the corresponding NRC Safety Evaluation. It does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. The SLC Manual was revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Reactor Coolant System (RCS)

This safety evaluation performed a revision to Selected Licensee Commitment Manual Section 16.5.10 and ITS 3.4.13 Bases. The changes add information that clarifies that loss of reactor coolant through reactor coolant pump seals and system valves to connecting systems which vent to the gas vent header and from which coolant can be returned to the reactor coolant system are not considered reactor coolant leakage.

SAFETY EVALUATION SUMMARY

This change makes the ITS and SLCs more consistent with the ITS Submittal, its supplements, and the corresponding NRC Safety Evaluation. It does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. The subject SLC and TS basis are part of the SAR and were revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Reactor Coolant System (RCS)

This safety evaluation performed a revision to Selected Licensee Commitment Manual Section 16.5.2.4 while a unit is in LTOP conditions from a single value applied to all three units, to the unit specific values determined by the existing calculations. These calculations show that the limiting flowrate for Units 1 and 2 are identical and greater than the value for Unit 3. Thus the new SLC will have a new, higher maximum flowrate for Units 1 and 2, and the existing maximum flowrate for Unit 3. Revision 1 to this 50.59 USQ evaluation was performed solely to bring it into conformance with NSD-209. The technical aspect of this 50.59 USQ evaluation is no longer in effect.

SAFETY EVALUATION SUMMARY

This change is largely editorial in nature. It does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. The subject SLC and was revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Reactor Coolant System (RCS)

This safety evaluation performed a revision to Selected Licensee Commitment Manual Section SLC 16.5.7, Chemistry Requirements, SR 16.5.7.1. This revision changed the sampling frequency for RCS chloride, fluoride, and oxygen to 72 hours. The new frequency will continue to require performance of the SR 3 times in 7 days; however, it does not require the SR to be performed three times in a given week. The change fully allows ONS to meet industry guideline recommendations (EPRI PWR Primary Water Chemistry Guidelines: Rev.3). The change also allows more time for troubleshooting/repairing the analytical equipment in order to perform the surveillance before having to ship the samples offsite.

SAFETY EVALUATION SUMMARY

The ability of the RCS and associated systems to perform their intended functions is not affected by this change. No new Operator actions are required. Existing equipment and procedures support the change, which does not in any way increase the likelihood of initiation or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. The subject SLC and was revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Reactor Coolant System (RCS), CRDM

This safety evaluation supports the development of new Selected Licensee Commitment (SLC) 16.7.14, "Rod Withdrawal Limit (RIL) Alarm". The RIL alarm provides a means of alerting operators to occurrence of a sudden boron dilution event during Mode 1. This SLC provides conservative actions to be taken by Operations whenever the RIL alarm is inoperable. The operator aid computer (OAC) provides the non-safety RIL alarm. Therefore, the RIL alarm is unavailable whenever the computer is out of service.

SAFETY EVALUATION SUMMARY

The plant can be operated indefinitely without the OAC. This additional 30 minute surveillance involves comparing the actual rod position to the COLR values. In conjunction with the normal attentiveness of the reactor operator, this surveillance helps ensure that a boron dilution event can be identified quickly and successfully mitigated. The GO Safety Analysis group evaluated the 30-minute timeframe above as acceptable when the required administrative controls are implemented. This change supports implementation of Tech Spec Change 99-06 and the associated Chapter 15 re-analyses for the Oconee Units. The ability of the RCS and associated systems to perform their intended functions is not affected by this change. The activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. The subject SLC and was implemented accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Condenser Circulating Water (CCW)

This safety evaluation performed a revision to Selected Licensee Commitment Manual Section 16.9.11. A Note was added to Required Action A.1 indicating that when Turbine Building Flood Protection Measures are inoperable due to planned activities, then these activities shall be performed in a prompt manner without delay. The Note serves two purposes. First, it clarifies that it is permissible to enter Condition A when the Turbine Building Flood Protection Measures are inoperable due to planned activities even though the Completion Time for initiating action to restore flood protection measures is "Immediately." Second, it makes it very clear that the planned activities shall be performed in a prompt manner without delay. The change is necessary since with a SLC applicability of "At all times" there is no time window to perform plan maintenance and testing activities when equipment is not required to be operable. One of the risk-significant Maintenance Rule functions for the CCW System is to maintain system integrity to prevent or mitigate a Turbine Building flood. The purpose of the SLC is to monitor performance of the major design features associated with this function. Monitoring of both unplanned and planned activities by logging the unavailability of this function will continue to assure that the Turbine Building flood protection measures will have a high probability of being available when required. Therefore the change is considered acceptable.

SAFETY EVALUATION SUMMARY

This SLC change does not change existing system design, construction, or operation. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No SSCs are degraded. There is no effect on reactivity. There is no change to plant setpoints, safety limits or design parameters. This activity also has no effect on any margins of safety as previously evaluated in the SAR. The revision to these SLCs did not result in any plant modifications or other activities that could have resulted in an unreviewed safety question. No Technical Specification changes were required. The subject SLC was revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: High Pressure Injection (HPI)

This safety evaluation supports SLC 16.6.12 that imposes operability requirements regarding the high pressure injection (HPI) system in addition to those imposed by Limiting Condition for Operation (LCO) 3.5.2, "High Pressure Injection (HPI)." These additional requirements are:

1. The third HPI pump and the discharge crossover valves are required to be operable and the suction headers are required to be cross-connected when Thermal Power is $\leq 60\%$ Rated Thermal Power;
2. The HPI discharge headers are required to be hydraulically separated whenever the plant is operating in a Mode or condition which requires the HPI system to be operable; and
3. Surveillance Requirements have been added to confirm the operability of the HPI discharge crossover valves and their associated flow instruments.

SAFETY EVALUATION SUMMARY

These additional requirements are necessary, because the Improved Technical Specification (ITS) requirements were based on the previous Technical Specifications which were deficient. A License Amendment Request was submitted on December 16, 1998, to incorporate the majority of these additional requirements. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. The subject SLC was implemented accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: High Pressure Injection (HPI)

This safety evaluation supports a revision to Selected Licensee Commitment 16.5.13, HPI and the Chemical Addition Systems. The following information was changed: (1) Editorial change to the wording on the statement pertaining to the system piping and valves to ensure the fluid temperature is maintained within the same requirement as the CBAST, (2) Deleted information on the boric acid pump associated with the boric acid mix tank, (3) Deleted information stating the boric acid pump associated with the CBAST is normally used for small additions during operation and the bleed transfer pumps are utilized when larger volumes are to be added, (4) Added manual alignment of the CBAST pump as acceptable to provide the capability to borate the RCS to MODE 5, and (5) Added references to support revised bases to the Reference section.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying the SLC information to more accurately reflect the as-built plant, current operating practices or licensing does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. The affected SLC was revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: None

This safety evaluation supports a change to SLC 16.11.10 that revised the submittal due date for the Annual Radiological Environmental Operating Report from May 1, 1999 to May 15, 1999. This change is a slight one-time relaxation (14 days) of the SLC commitment for the Radiological Environmental Annual Operating Report during the first year of implementation that makes the SLC commitment consistent with the TS requirement.

SAFETY EVALUATION SUMMARY

This SLC change is largely editorial in nature. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No SSCs are degraded. There is no effect on reactivity. There is no change to plant setpoints, safety limits or design parameters. This activity also has no effect on any margins of safety as previously evaluated in the SAR. The revision to these SLCs did not result in any plant modifications or other activities that could have resulted in an unreviewed safety question. No Technical Specification changes were required. The subject SLC was revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Once Through Steam Generators (OTSG)

This safety evaluation supports a change to SLC 16.7.5 which was modified by adding a Note to the Commitment that permits the applicable portions of the Steam Generator Overfill Protection system to be inoperable in the event the associated MFW pump is incapable of supplying water to the steam generators.

SAFETY EVALUATION SUMMARY

In this case, the affected MFW pump cannot overfill the steam generator. This activity does not involve: a physical alteration of the plant; the installation of new or different equipment; operating any installed equipment in a new or different manner; a change to any set points for parameters which initiate protective or mitigative action; any impact on the fission product barriers or safety limits; or creation of any new radiological release pathways. The change in the SLC does not adversely affect the ability of any system to mitigate any accidents described in the SAR. No SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved. No changes to the Technical Specifications are required. The subject SLC was revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: OTSG, Feedwater

This safety evaluation supports the following changes to SLC 16.7.5: (1) for operating the plant in the Mode of Applicability with an uncoupled MFWP prior to Surveillance Requirement performance. SLC 16.2.4 specifically states Station Manager and/or responsible Group Superintendent approval may be obtained in the case that facility operation will occur with required equipment or systems inoperable (as defined by the applicable SLC). This evaluation supplements this approval by demonstrating that there are no safety implications to this action and all intentions of the SLC are met, and (2) to indicate that APPLICABILITY is only for MFWPs on which the pump and turbine are coupled (in addition to other Mode requirements). The BASES includes information indicating that the circuitry is not required to be operable to trip an uncoupled pump/turbine.

SAFETY EVALUATION SUMMARY

The evaluation determined that all safety functions of the Steam Generator Overfill Protection system are met for a channel if the affected Feedwater Pump is uncoupled. It is acceptable to take management exception to this SLC and subsequently revise the Applicability of the SLC. This activity does not involve: a physical alteration of the plant; the installation of new or different equipment; operating any installed equipment in a new or different manner; a change to any set points for parameters which initiate protective or mitigative action; any impact on the fission product barriers or safety limits; or creation of any new radiological release pathways. The change in the SLC does not adversely affect the ability of any system to mitigate any accidents described in the SAR. No SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved. No changes to the Technical Specifications are required. The subject SLC was revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Keowee Hydro

This safety evaluation supports a revision to SLC 16.8.4 to increase the operating envelope for generation of the Keowee units to the grid. The forebay and tailrace lake level operating limits were revised, as well as allowing a slight power increase. When not providing commercial generation, the Keowee units are not inoperable if the lake levels are outside the operational restrictions. While lake levels are outside the acceptable region, commercial generation is prohibited for the Keowee units.

SAFETY EVALUATION SUMMARY

Failure analysis for the Keowee Hydro Units is not changed by the slight increase in power allowed during commercial generation, or by the decrease in forebay and tailrace lake levels allowed during commercial generation. The Keowee units are capable of generating commercially at Keowee elevations as low as 775 ft. Tailrace elevations are not critical for unit operation commercially. The Keowee units are rated at 87.5 MW each for continuous commercial generation. The Keowee units are not being operated beyond their design basis with regards to lake level or power output. Actual load rejection testing was performed in excess of the allowed limits in terms of lower lake levels and higher power outputs. The units responded properly and returned to frequency at 110% decreasing in less than or equal to 22 seconds. This allows 1 second for other electrical equipment to change state or close breakers as required by events at the time. Since most electrical equipment operates in the range of milliseconds, this is considered a conservative time frame for equipment operation. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. There is no change to plant setpoints, safety limits or design parameters. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No Technical Specification changes were required. The subject SLC was revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: High Pressure Service Water

This safety evaluation supports a revision to SLC 16.9.8 to change the elevated water storage tank (EWST) minimum level from 70,000 to 55,000 gallons. The EWST is less than 70,000 gallons during monthly testing. Subsequent review of engineering calculations established that 55,000 gallons is the minimum acceptable level to ensure the EWST can perform its safety function during a LOCA/LOOP scenario.

SAFETY EVALUATION SUMMARY

This documentation activity did not change existing system design, construction, or operation. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity does not involve a physical alteration of the plant. There is no change to plant setpoints, safety limits or design parameters. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No Technical Specification changes were required. The subject SLC was revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Fire Protection

This safety evaluation supports a SLC revision to consolidate station staffing requirements into one user-friendly document. The new SLC is duplicative to upper tier requirements such as 10 CFR 50.54(m)(2), 10 CFR 50 Appendix R and ITS 5.2.2. The Bases of the SLC are written to clearly identify the basis for each number specified in the SLC. The station staffing requirements of 10 CFR 50.54(m)(2), 10 CFR 50 Appendix R, ITS 5.2.2, SLC 16.13.1, SLC 16.13.5, the Emergency Plan, and OMP are consolidated into one SLC. The change replaced SLC 16.13.1, Fire Brigade, and SLC 16.13.5, Additional Operating Shift Requirements, with SLC 16.13.1, Minimum Station Staffing Requirements. SLC 16.13.1 Commitment a.2, a.3 and b replace old SLC 16.13.5 Commitment a.4, a.5 and b respectively. SLC 16.13.1 Commitment a replaced SLC 16.13.5.a.1 and a.2 and SLC Commitment 16.13.1. The SLC also restates regulatory and administrative requirements that are currently contained within 10 CFR 50.54(m)(2), 10 CFR 50 Appendix R, ITS 5.2.2, OMPs and the Emergency Plan. SLC 16.13.1.a.1 restates ITS 5.2.2.b. SLC Table 16.13.1-1 restates 10 CFR 50.54(m) and ITS 5.2.2. The SLC Table also provides an upper tier requirement for the Emergency Plan and OMPs.

SAFETY EVALUATION SUMMARY

The change provides a more stringent requirement than previously existed in the Technical Specifications or existing SLCs with regard to fire brigade staffing requirements. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity does not involve a physical alteration of the plant. There is no change to plant setpoints, safety limits or design parameters. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No Technical Specification changes were required. The subjects SLCs were revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Turbine Building Flood Alarm

This safety evaluation supports a revision to the Selected Licensee Commitment Manual Section 16.9.11 Bases to describe the commitment requirements of SLC 16.9.11.f "The Turbine Basement Water Emergency High Level alarm shall be operable". The following paragraph was added: "Commitment f requires that the Turbine Basement Water Emergency High Level alarm shall be operable. The Turbine Basement Water Emergency High Level Alarm consist of a 2 out of 4 logic circuit, which yields 6 different alarm circuit combinations. Operability is based on at least 1 of the 6 alarm circuit combinations being functional."

SAFETY EVALUATION SUMMARY

This commitment was made in order to trend Maintenance Rule Functional Failures and provides a means of tracking Maintenance Rule function unavailability. This change is an enhancement to SLC 16.9.11 and no physical plant changes have been performed. The change does not involve any changes to the operation or design basis function of any structure, system or component. The associated instrumentation is not an accident initiator nor does it have accident mitigation capabilities. No design basis or safety functions of any structure, system or component are adversely affected by this change. This activity does not in any way affect the mitigation of any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. The subject SLC was revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: CCW, Turbine Building

This safety evaluation supports a revision to Selected Licensee Commitments (SLC) 16.9.11 to add an option to allow a condenser outlet valve to be incapable of automatically closing if it is already closed and capable of operating either manually or automatically. Also, a note was added to state that the valve control switch may be placed in the HAND position with the valve open for the purpose of immediately closing the valve. This note allows operators to manually close a condenser outlet valve without having to enter an Action condition. The changes permit activities such as maintenance isolation using the condenser outlet valves or valve stroke testing to occur in certain circumstances without considering the valves to be out of service for the purposes of TB flood protection.

SAFETY EVALUATION SUMMARY

Oconee Technical Specifications do not address Turbine Building (TB) flood protection measures. The Oconee UFSAR Section 3.4.1.1.1 describes the flood protection measures for the Turbine Building and Auxiliary Building. These measures are part of the basis for the requirements in SLC 16.9.11. The Oconee design basis for maintaining safe shutdown after a flood takes credit for the Standby Shutdown Facility (SSF). The flood protection measures discussed in the UFSAR are not necessary to protect equipment in the SSF. The flood protection measures were implemented to reduce the overall core damage frequency as determined by the Oconee Probabilistic Risk Assessment (PRA) study. The condenser outlet valves are needed to help mitigate a TB flood. The proposed changes will have no effect on the probability of a flood or any other accident occurring. The proposed changes merely involve the capability of the condenser outlet valves to help mitigate a TB flood. This activity does not in any way affect the mitigation of any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. The subject SLC was revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Emergency Feedwater (EFW)

This safety evaluation supports a revision to the Selected Licensee Commitment Manual Section SLC 16.10.7 to impose additional requirements to ensure that feedwater can be supplied from another unit's EFW System to mitigate the consequences of an event that renders the subject unit's EFW System unavailable (i.e., High Energy Line Break (HELB) coincident with a single failure affected the subject unit's EFW System). These additional requirements serve as compensatory measures to address a deficiency in the design of the subject unit's EFW System. They ensure that another unit can supply feedwater to the subject unit's steam generators by imposing additional operability requirements and requiring additional surveillances to be conducted to confirm operability.

SAFETY EVALUATION SUMMARY

This Commitment provides controls to ensure that feedwater can be supplied from another unit's EFW System to mitigate the consequences of an event that renders the subject unit's EFW System unavailable. The EFW System from the alternate unit that is being credited is considered OPERABLE when the components required to provide EFW flow from it to the subject unit's steam generators are OPERABLE. Revision 2 of Calculation OSC-2516 was utilized to determine the required pumping capacity from the alternate unit's EFW System. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. The subject SLC was revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Keowee Hydro, LPSW

This safety evaluation supports a change to Selected Licensee Commitments (SLC) 16.9.7. The activity changed all the required lake levels to absolute lake levels without instrument error included. Also, the Bases section was revised to state that instrument error must be added if using a computer point to verify lake level. The existing SLC Bases section already explains that the lake levels in the SLC include 1.15 ft of instrument error. This instrument error is based on use of a computer point to verify level. If the absolute level is determined without using the computer point, then it is inappropriate to include the instrument error. This is implied in the existing SLC Bases, but is not explicitly stated. Literal compliance with the SLC commitment does not currently allow subtracting this instrument error.

SAFETY EVALUATION SUMMARY

Technical Specification SR 3.7.8.2 requires that Keowee lake level be verified to be within limits every 24 hours. The Bases for SR 3.7.8.2 states that lake level requirements are maintained in UFSAR Chapter 16. This provision is consistent with SLC 16.9.7 that establishes the lake level limits and requires that lake level be verified every 12 hours. The change to SLC 16.9.7 is consistent with the existing Bases Section of the SLC. A previous revision of SLC 16.9.7 contained the absolute lake level limits in parentheses along with the limits that included instrument error. A note in the SLC was worded the same as the existing Bases. This allowed the absolute lake level limits to be used. Subsequent revisions have unintentionally eliminated this capability. Therefore, this change is considered to be a minor, administrative change that is consistent with the existing SAR. The lake level limits in SLC 16.9.7 are established to ensure the LPSW System and the Keowee Hydro remain operable to perform their roles in mitigating design basis accidents. The changes to allow use of the absolute lake level limits (without instrument error included) will not prevent the LPSW System and Keowee Hydro from performing their required safety functions. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No SSCs are degraded. There is no effect on reactivity. There is no change to plant setpoints, safety limits or design parameters. This activity also has no effect on any margins of safety as previously evaluated in the SAR. The revision to these SLCs did not result in any plant modifications or other activities that could have resulted in an unreviewed safety question. No Technical Specification changes were required. The subject SLC was revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Chemical Treatment

This safety evaluation supports revision to Selected Licensee Commitment Manual Table 16.11.4-1, Minimum Sampling Frequency and Analysis Program. The Table requires that for the Condensate Test Tank, Condensate Monitoring Tank, Laundry-Hot Shower Tank, and Waste Monitor Tanks principal gamma emitters, including noble gases, be sampled prior to each release and be analyzed to meet the specified Lower Limit of Detection listed. This change requires a composite sample to be analyzed for the principal gamma emitters including the dissolved and entrained gases and meet a Lower Limit of Detection for Lab Analysis for Ce-144 of $<5E-6$. All other principal gamma emitters are required to meet a Lower Limit of Detection of $<5E-7$. NUREG-1301 requires only Ce-144 to meet a lower limit of detection of $<5E-6$.

SAFETY EVALUATION SUMMARY

The revision did not result in any plant modifications, procedure changes, or other activities, which involved an unreviewed safety question. This activity does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No SSCs are degraded. There is no effect on reactivity. There is no change to plant setpoints, safety limits or design parameters. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No Technical Specification changes were required. The subject SLC was revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Core Flood Tank (CFT), LPI

This safety evaluation performed a revision to Selected Licensee Commitment Manual Section 16.13.7. The activity revised the time requirement for establishing LPI flow after a CFT line break from 15 minutes immediately afterward to prior to the minimum time to switchover to sump recirculation.

SAFETY EVALUATION SUMMARY

The revised time frame ensures that the ECCS systems provide continuous core cooling to ensure a CFT line break can be successfully mitigated. It does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There are no physical changes to the plant. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. The subject SLC was revised accordingly.

VII. UFSAR CHANGES (Pkg 97-36)

DESCRIPTION

SYSTEM: Reactor Coolant (RCS)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. The optimal ring settings, and reference, for the pressurizer safety valves were corrected.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying the UFSAR information to more accurately reflect the as-built plant and/or current operating practices does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no adverse effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Sections 5.4.6.3.1 and 5.4.9 were revised accordingly.

UFSAR CHANGES (Pkgs 97-167, 99-31)

DESCRIPTION

SYSTEM: Primary Chemical Addition (CA)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. The activity clarified the locations of the CA sample sinks.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reflect the as-built plant and/or current operating practices does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Section 9.3.1.2.1 was revised accordingly.

UFSAR CHANGES (Pkg 97-204)

DESCRIPTION

SYSTEM: Primary Chemical Addition (CA)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. The activity corrected the CA system flow diagrams to match the current as-built plant.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reflect the as-built plant and/or current operating practices does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Figures 9-15 and 9-16 were revised accordingly.

UFSAR CHANGES (Pkg 97-207)

DESCRIPTION

SYSTEM: Spent Fuel Cooling (SFC)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. The activity corrected the SFC system flow diagram to match the current as-built plant.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reflect the as-built plant and/or current operating practices does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Figure 9-5 was revised accordingly.

UFSAR CHANGES (Pkg 98-46)

DESCRIPTION

SYSTEM: Reactor Building Spray (BS)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 6.2.2.3 was revised to clarify that ES 7 and 8 actuation occurs at 10 psig from which point it takes a max of 92 seconds (for pumps to start, valves to open) to deliver RBS flow. Thus ES at 10 psig allows the RBS to meet the TS of < 15 psig.

SAFETY EVALUATION SUMMARY

This revision is to reflect the accurate as-built plant SSC descriptions, design and licensing bases for the Building Spray system. The revision does not result in any plant modifications, procedure changes, or other activities that could result in an unreviewed safety question. This change does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no affect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No Technical Specification changes are required. There are no unreviewed safety questions or safety concerns. UFSAR Section 6.2.2.3 was updated accordingly.

UFSAR CHANGES (Pkg 98-69)

DESCRIPTION

SYSTEM: Reactor Coolant (RCS)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised the Section 5.2.3.2 to correct and streamline the discussion of RCS snubbers and piping restraints. The types of snubbers used at ONS are already discussed in section 3.9.3.4.2.2.

SAFETY EVALUATION SUMMARY

This change is largely editorial, and does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 5.2.3.2 was revised accordingly.

UFSAR CHANGES (Pkg 98-75)

DESCRIPTION

SYSTEM: Low Pressure Injection (LPI)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. There are two Borated Water Storage Tank (BWST) alarms provided in the Control Rooms. This change clarifies that switchover from BWST to RB sump is performed by the operator when the "emergency low level" alarm is received.

SAFETY EVALUATION SUMMARY

This information addition to the UFSAR has no impact on the LPI system's analysis, design, function, operation, or performance as previously evaluated in the SAR. Enhancing the UFSAR content to more accurately reflect the as-built plant and licensing basis does not adversely affect the integrity, operation or function of any systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Sections 6.1.3, 6.2.2.2.1, and 6.3.2.2.2 were updated accordingly.

UFSAR CHANGES (Pkg 98-117)

DESCRIPTION

SYSTEM: Electric Power

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to correct discrepancies and enhance descriptions. A description of cable & tray identification (including color-coding) for Unit's 2&3 safety-related equipment was added.

SAFETY EVALUATION SUMMARY

This information addition to the UFSAR has no adverse impact on the Emergency Power system's analysis, design, function, operation, or performance as previously evaluated in the SAR. Enhancing the UFSAR content to more accurately reflect the as-built plant does not adversely affect the integrity, operation or function of any systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 8.3.1.3 was revised accordingly.

UFSAR CHANGES (Pkg 98-157)

DESCRIPTION

SYSTEM: Reactor Building Penetrations

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Sections 6.2.4.2 and 6.5.1.2 were updated to delete duplicative information and to clarify RB normal sump drain penetration includes the H2 recombiner drain. Figures 6-13 and 6-14 were deleted since they are duplicated in Chapter 3.

SAFETY EVALUATION SUMMARY

This revision simply enhances plant RB penetration descriptions. The revision does not result in any plant modifications, procedure changes, or other activities that could result in an unreviewed safety question. This change does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no affect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No Technical Specification changes are required. There are no unreviewed safety questions or safety concerns. UFSAR Sections 6.2.4.2, 6.5.1.2 and Figures 6-13, 6-14 were changed accordingly.

UFSAR CHANGES (Pkg 99-01)

DESCRIPTION

SYSTEM: Fire Protection

This activity revises the UFSAR and SLC to give the correct location reference to the document where the Fire Protection Review is now contained. The Fire Protection Review is currently contained in the Fire Protection DBD. To be consistent, and to avoid confusion, the UFSAR and SLC references to the Fire Protection Review are being revised to state that the Fire Protection Review is currently contained in the Fire Protection DBD.

SAFETY EVALUATION SUMMARY

This activity is considered editorial in nature and does not in any way change the physical characteristics of the Station or any of its operations. Plant SSCs as evaluated in the SAR, are not adversely affected by this activity, which simply provides clarification. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR section 9.5.1.4.1 and SLC Sections 16.9.1, 16.9.2, 16.9.3, 16.9.4, 16.9.5, 16.9.6, and 16.13.1 were revised accordingly.

UFSAR CHANGES (Pkg 99-02)

DESCRIPTION

SYSTEM: Containment

This evaluation was performed per PIP 99-1646 to delete extraneous information from Section 6.2.3.1 that was added this update as part of the conversion to Improved Technical Specifications. Certain penetration valves were described as having “resilient” seating surfaces. The function of the containment isolation system is to minimize leakage. Information on the type of material used in the containment barrier is irrelevant to the discussion.

SAFETY EVALUATION SUMMARY

The capability of a containment barrier to fulfill its design function is determined by its leak tightness. The leak tightness is quantified and compared to Tech Spec and 10 CFR 50 Appendix J acceptance criteria. A valve seat’s leak tightness is a function of its design, not the seat material (resilient versus non-resilient). These changes do not cause, or adversely affect the mitigation of, any previously analyzed SAR accidents. There are no physical changes to the facility or operating procedures. No new radiological release pathways or failure modes are created. The SSCs will continue to perform their design functions during normal and accident conditions. The containment isolation system design, function, performance and integrity are not affected by these changes. No plant safety limits, setpoints or design parameters are adversely impacted. There are no adverse effects on reactivity. There are no safety concerns or USQs associated with this activity. No Technical Specification changes are required. UFSAR Section 6.2.3.1 is correct as written.

UFSAR CHANGES (Pkg 99-03)

DESCRIPTION

SYSTEM: Waste Water Systems

This evaluation supports adding new sections to the UFSAR for the OTSG Recirculation and Conventional Wastewater Systems. New Figure 10-9 was provided, and Fig 11-4 was revised because the previous version was not legible. Because the OTSG recirculation is not related to Chapter 11 - Radioactive Waste Management - the OTSG information was relocated to Chapter 10.

SAFETY EVALUATION SUMMARY

This activity and does not in any way change the physical characteristics of the Station or any of its operations. Plant SSCs as evaluated in the SAR, are not adversely affected by this activity, which simply provides clarification and enhancement of the descriptions. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR sections 10.4.8, 9 and 11.7 and Figures 10-9 and 11-4 were revised accordingly.

UFSAR CHANGES (Pkg 99-05)

DESCRIPTION

SYSTEM: Reactor Coolant System (RCS)

This USQ evaluation was performed per PIP 96-2627, CA #12 to support a revision to the note in UFSAR Table 5-2 to delete a reference to flaws that have been re-evaluated and qualified for the number of cycles listed in the table.

SAFETY EVALUATION SUMMARY

This change resulted in eliminating the use of a reduced number of cycles for all flaws except the one in the Unit 1 OTSG-Upper Head to Tubesheet. As a result, the reduced number of cycles that had been implemented in the Allowable Operating Transient Cycles (AOTC) program log book for Unit 2 were removed. The reduced number of cycles in the Unit 1 log book is maintained since the remaining flaw evaluation that uses a reduced number of cycles was the most limiting.. There presently are no flaw tolerance evaluations for Unit 3 utilizing fewer cycles than contained in the RCS Functional Specification. In this manner, the number of transient cycles experienced by the plant will be maintained within the numbers evaluated in the calculations that demonstrate code compliance. This activity and does not in any way change the physical characteristics of the Station or any of its operations. Plant SSCs as evaluated in the SAR, are not adversely affected by this activity, which simply provides correction of the descriptions to match the as-built plant. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR Table 5-2 was revised accordingly.

UFSAR CHANGES (Pkg 99-06)

DESCRIPTION

SYSTEM: Control Room Ventilation

This activity is a change to USFAR Section 9.5.1.4.4 to clarify, reword, and better organize the contained information. In addition the editorial changes mentioned above, clarifying information is added to better describe system operation:

- a) The UFSAR previously stated “In Oconee 1 and 2 pressurizing and ventilation air is brought from outside, sent through one of two redundant fan and filter units after which it mixes with return air.” This change revised the statement to indicate that the air is sent through the two redundant fan and filter units. These fan/filter units are 50% capacity and normal emergency operation is to start both units. Additionally, Technical Specification surveillance testing is required to be performed with both outside air booster fans in operation.
- b) The UFSAR previously stated “The fans run only during an emergency”. As stated in the paragraph above, the outside air booster fans are required to be operated to meet the surveillance requirements of Technical Specifications. The sentence was modified to state “The fans run only during an emergency and during testing”.

SAFETY EVALUATION SUMMARY

This activity is largely editorial in nature and does not in any way change the physical characteristics of the Station or any of its operations. Plant SSCs as evaluated in the SAR, are not adversely affected by this activity, which simply provides clarification and enhancement of the descriptions to reflect the as-built plant. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. No plant safety limits, setpoints or design parameters are adversely impacted. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR section 9.5.1.4.4 was revised accordingly.

UFSAR CHANGES (Pkg 99-08)

DESCRIPTION

SYSTEM: Fuel Handling

This safety evaluation revised UFSAR section 15.11.2.5.1, per PIP 99-1188, to specify there is no 50 hour drain down time limit for the dry storage cask under the General License System. The time limit is only applicable to those canisters loaded under the Site Specific license.

SAFETY EVALUATION SUMMARY

Clarifying UFSAR information to reflect the Tech Spec requirements does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No important to safety SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. UFSAR Section 15.11.2.5.1 was revised accordingly.

UFSAR CHANGES (Pkg 99-09)

DESCRIPTION

SYSTEM: Core Exit Thermocouples

This activity changed the UFSAR Section 7.5.2.2 and Technical Specification Bases Section 3.3.8 descriptions for the configuration of the Core Exit Thermocouples. The descriptions were revised to include the 5 incore thermocouples used in the Standby Shutdown Facility (SSF).

SAFETY EVALUATION SUMMARY

This activity and does not in any way change the physical characteristics of the plant or SSF. There is no effect on operations. Plant SSCs as evaluated in the SAR, are not adversely affected by this activity, which simply revises the UFSAR descriptions to match the as-built plant. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR Section 7.5.2.2 and TS Bases 3.3.8 were revised accordingly.

UFSAR CHANGES (Pkg 99-10)

DESCRIPTION

SYSTEM: Class 1 Structures

This evaluation was performed per PIP 98-2055, CA #62 to correct UFSAR Table 9-18, "Design Basis Tornado Missiles Minimum Barrier Thicknesses". The specific values regarding the calculated maximum penetration depth of certain tornado missiles and the required minimum barrier thickness (which is three times the calculated penetration depth) were revised. The calculated minimum barrier thickness is less than was in Table 9-18 before.

SAFETY EVALUATION SUMMARY

This activity and does not in any way change the physical characteristics of the Station or any of its operations. Plant SSCs as evaluated in the SAR, are not adversely affected by this activity, which simply provides correction of the descriptions to match the as-built plant. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR Table 9-18 was revised accordingly.

UFSAR CHANGES (Pkg 99-11)

DESCRIPTION

SYSTEM: Control Rod Drives

This evaluation was performed per PIP 98-5940, CA #2 to change all UFSAR references from "rod control drive" system to "control rod drive" system (CRD). A reference was also added.

SAFETY EVALUATION SUMMARY

This activity and does not in any way change the physical characteristics of the Station or any of its operations. Plant SSCs as evaluated in the SAR, are not adversely affected by this activity, which simply provides correction of the descriptions to match the as-built plant. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR Sections 3.1.28 and 7.6.1.1 were revised accordingly.

UFSAR CHANGES (Pkg 99-12)

DESCRIPTION

SYSTEM: Reactor Building Purge

This evaluation was performed per PIP 98-3895 to clarify the UFSAR that: (1) containment isolation is by valve, not damper and (2) the in-containment isolation valve limits switches are not required to be EQ.

SAFETY EVALUATION SUMMARY

This change makes the UFSAR RB purge description consistent with the flow diagrams, Environmental Qualification Manual, ONOE-8796 and the as-built plant. This activity does not in any way change the physical characteristics of the Station or any of its operations. Plant SSCs as evaluated in the SAR, are not adversely affected by this activity, which simply provides clarification. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. No plant safety limits, setpoints or design parameters are adversely impacted. There are no adverse effects on reactivity. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR Sections 7.5.2.50 was revised accordingly.

UFSAR CHANGES (Pkg 99-15)

DESCRIPTION

SYSTEM: Containment

This evaluation was performed per PIP 97-3134 CA #9 to reflect that flanges and closed loop piping systems are acceptable means of meeting the redundancy design criteria of UFSAR 3.1.53. Also completely revamped and enhanced Table 6-7 and Fig 6-9.

SAFETY EVALUATION SUMMARY

Crediting mechanisms such as flanges and closed loop piping systems as containment barriers is already reflected in the UFSAR Table 6-7, Fig 6-9 and is consistent with GDC in 10CFR 50 Appendix A. These type barriers are adequate to prevent post-accident releases from containment. These changes do not cause, or adversely affect the mitigation of, any previously analyzed SAR accidents. There are no physical changes to the facility or operating procedures. No new radiological release pathways or failure modes are created. The SSCs will continue to perform their design functions during normal and accident conditions. The containment isolation system design, function, performance and integrity are not affected by these changes. No plant safety limits, setpoints or design parameters are adversely impacted. There are no adverse effects on reactivity. There are no safety concerns or USQs associated with this activity. No Technical Specification changes are required. UFSAR Section 3.1.53, Table 6-7 and Fig 6-9 were revised accordingly.

UFSAR CHANGES (Pkg 99-17)

DESCRIPTION

SYSTEM: Turbine Building Flood Protection

This evaluation was performed per PIP 98-5940 to correct the UFSAR description of the Turbine Building Flood alarms. The actual Turbine Building Flood Statalarm has "2 out of 4" logic rather than "2 out of 3", and "emergency high" alarm instead of "alert" alarm. Statements about "a range of 0 to 7 feet, and sensitivity of ± 1.5 inches" were deleted. These changes make the UFSAR consistent with elementary plant diagram OEE-229-04 and procedure AP/1,2,3/A/1700/010.

SAFETY EVALUATION SUMMARY

Indication of flood conditions in the Turbine Building basement is provided in the Unit 1&2 Control Room by the Turbine Building Flood Statalarm. The range and sensitivity of the instrument is not germane to the subject matter of UFSAR Chapter 3. There are no licensing requirements or technical need for including extraneous details regarding the TB flood statalarm configuration. This activity does not in any way change the physical characteristics of the Station or any of its operations. Plant SSCs as evaluated in the SAR, are not adversely affected by this activity, which simply corrects the descriptions to match the as-built plant. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. No plant safety limits, setpoints or design parameters are adversely impacted. There are no adverse effects on reactivity. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR Sections 3.4.1.1.1 was revised accordingly.

UFSAR CHANGES (Pkg 99-19)

DESCRIPTION

SYSTEM: Emergency Feedwater (EFW)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity clarifies that the AMSAC starts for the EFW pumps are not QA-1. The only QA-1 starts are low S/G water level and MFDWP low hydraulic oil pressure. This change is supported by the Oconee controlled electrical drawings.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reflect the as-built plant and/or current operating practices does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Section 3.1.1.1 was revised accordingly.

UFSAR CHANGES (Pkg 99-20)

DESCRIPTION

SYSTEM: Site Building and Grounds

This safety evaluation was performed to update the UFSAR to reflect the construction of the new Mosquito Control Facility building and boat dock within the plant 1 mile radius.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reflect the as-built plant and site surroundings does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Sections 2.1.1, 2.1.2 and Figures 2-4, 2-5, 2-32 were revised accordingly.

UFSAR CHANGES (Pkg 99-23)

DESCRIPTION

SYSTEM: RBCUs, HPI

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. Section 7.5.2.41 "Reactor Building Fan Heat Removal" discusses the key variable for monitoring Reactor Building Cooler performance, which is Reactor Building Pressure instrumentation. In this description there is a reference to "variable sheet B-13." This is the variable sheet from a 9/28/84 letter from HB Tucker to HR Denton "Duke's Interpretation of RG 1.97, Rev. 2." This statement is confusing since it seems to refer to a variable sheet in the UFSAR. This reference to "variable sheet B-13" was deleted.

Similarly the discussion in UFSAR Section 7.5.2.43 "Makeup Flow" discusses instrumentation for reactor coolant makeup flow. In this description there is a reference to "as clarified in Section 5.5." The reference is actually to Section 5.5 from a 9/28/84 letter from HB Tucker to HR Denton "Duke's Interpretation of RG 1.97, Rev. 2." Since it appears to refer to Section 5.5 of the UFSAR, the statement was removed.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reflect the actual meaning and enhance readability does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Sections 7.5.2.41 and 7.5.2.43 were revised accordingly.

UFSAR CHANGES (Pkg 99-25)

DESCRIPTION

SYSTEM: Power Range Neutron Detectors

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity provides a better description of the configuration and size of the power range detectors associated with the RPS and ICS and their role in obtaining axial power distribution. This change makes it clear that all power range detectors, with the exception of NI-9 on Unit 1 which is a three section detector, consist of two sections that are each nominally 70 inches. The changes associated with this activity also provide better distinction regarding which detectors are used in axial power imbalance calculations (NI-5, -6, -7, and -8).

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reflect the as-built plant does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. There is no impact on nuclear instrumentation nor RPS or ICS system/component design, function, or operation. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Sections 4.3.3.1.2, 7.4.1.2.1 and 7.4.1.3 were revised accordingly.

UFSAR CHANGES (Pkg 99-27)

DESCRIPTION

SYSTEM: Low Pressure Injection (LPI)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised UFSAR section 7.5.2.6 to reflect that the Borated Water Storage Tank (BWST) Level instrumentation, which is located outside the Reactor and Auxiliary Building in a mild environment, is not environmentally qualified. Also, that two of the three channels provided have a safety grade power source, while the third has both a safety and non-safety power distribution. This clarification provides consistency among the existing plant documentation regarding environmental qualification and with the as-built configuration depicted on the applicable elementary diagrams.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reflect the as-built plant does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Section 7.5.2.6 was revised accordingly.

UFSAR CHANGES (Pkg 99-28)

DESCRIPTION

SYSTEM: Reactor Coolant (RCS)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised the Section 7.5.2.22 header to be consistent with the header in the response to RG 1.97. UFSAR Section 7.5.2.22 contains a description of the sampling system for the primary coolant, the Reactor Building sump and Reactor Building air. The header of this section was incorrectly labeled as "Primary Coolant and Reactor Building Pressure". Section 7.5.2.19 is also labeled as "Reactor Building Pressure" and contains the actual discussion of reactor building pressure instrumentation, which create possible confusion between these two sections. The response to RG 1.97, dated 9/28/84, labels this variable as "Analysis of Primary Coolant Accident Sampling Capability, Primary Coolant Sump, Containment Air".

SAFETY EVALUATION SUMMARY

This change is largely editorial, and does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Section 7.5.2.22 was revised accordingly.

UFSAR CHANGES (Pkg 99-29)

DESCRIPTION

SYSTEM: 120 VAC or 125 VDC Instrumentation Vital Bus System

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised UFSAR Tables 8-5 and 8-6 to better address the actual consequences for the single failures listed in these tables and to add the Unit 2 and Unit 3 component information.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reflect the as-built plant does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Tables 8-5 and 8-6 were revised accordingly.

UFSAR CHANGES (Pkg 99-32)

DESCRIPTION

SYSTEM: RB Pressure Transmitters

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised UFSAR Table 7-5, Non-Nuclear Instrumentation (NNI) Inputs to Engineered Safeguards, to reflect that the Reactor Building (RB) Narrow Range (NR) pressure transmitters 1/2/3BSPT0004P, 1/2/3BSPT0005P, and 1/2/3BSPT0006P (Component Item Number BS4-PT1, 2, and 3) are "ITT Barton" rather than 'Rosemount'. This change provides consistency with OSC-2495, "Reactor Building Narrow Range Pressure Instrument Loop Accuracy Calculation", the Environmental Qualification Master List (EQML) and by calibration procedures IP/0/A/0310/003,4,5C.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reflect the as-built plant does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Table 7-5 was revised accordingly.

UFSAR CHANGES (Pkg 99-33)

DESCRIPTION

SYSTEM: Control Room Ventilation (CRVS)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. Table 9-11 previously stated that the number of booster fans required in the Control Room Zone in Units 1 and 3, and Unit 3 during normal operation is two and also that the number of outside air filter trains required in the same areas during normal operation is two. However, UFSAR Sections 9.4.1.2.1 and 9.4.1.2.2 and the Technical Specification Bases state that the booster fans and filter trains are not operated during normal operation and require operator action to start. A review of the Emergency Operating Procedures confirmed that this equipment is started after an accident. The actual number of booster fans/outside air filter trains required during normal operation is zero.

SAFETY EVALUATION SUMMARY

Correcting UFSAR information to more accurately reflect the as-built plant and/or current operating practices does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. No new components are being added. The activity does not create any conditions or events, which lead to accidents previously, evaluated in the SAR. There is no adverse effect on containment integrity and no new release paths are created. The activity will not result in any new credible failure modes. No new accidents different than already evaluated in the SAR are postulated. The activity does not affect any safety limits or limiting safety system settings. There is no effect on reactivity. There are no USQs or safety concerns. No Technical Specification changes are required. UFSAR Table 9-11 was revised accordingly.

UFSAR CHANGES (Pkg 99-36)

DESCRIPTION

SYSTEM: Reactor Building Cooling Units (RBCU)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 6.2.2.2.7 was revised to reflect the current as-built RBC duct blowout plate configuration. Analysis has shown that due to duct deformation during an accident, the blowout plates are not needed. The RBC blowout plates were previously modified to allow use of standard fasteners, and thus are no longer functional as blowout plates.

SAFETY EVALUATION SUMMARY

The revision of this information in the UFSAR is to reflect the accurate as-built plant SSC descriptions of RB Cooling system. The revision does not result in any plant modifications, procedure changes, or other activities that could involve an unreviewed safety question. This change does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no affect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No Technical Specification changes are required. There are no unreviewed safety questions or safety concerns. UFSAR Section 6.2.2.2.7 was revised accordingly.

UFSAR CHANGES (Pkg 99-37)

DESCRIPTION

SYSTEM: Emergency Core Cooling (ECCS)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 6.3.2.8, discusses the non-metallic materials selected for the electric motor valve operators inside the reactor building, based on irradiation testing, include Humble Nebula EP #1 as the lubricant, class H motor insulation, viton seals etc. The context of the discussion presented is historical qualification of the required equipment inside the reactor building in order to meet environmental considerations. In response to IEB 79-01B, "Environmental Qualification of Class IE Equipment", a Environmental Qualification (EQ) program was developed as documented in docketed correspondence dated 1/30/81 and Safety Evaluation Reports (SER) dated 5/22/81 and 3/20/85 respectively. This program addresses currently qualified materials for EQ components inside containment. This activity revised Section 6.3.2.8 to clarify the historical nature of the discussion and to provide a reference to the applicable section for a discussion of the EQ program for components presently in use

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reflect the as-built plant, current operating practices or approved programs does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Section 6.3.2.8 was revised accordingly.

UFSAR CHANGES (Pkg 99-38)

DESCRIPTION

SYSTEM: Emergency Core Cooling (ECCS)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 6.3.1 provides a description of the design basis of the ECCS and stated systems that are only used for emergency functions, such as Reactor Building Spray (RBS), are designed to permit meaningful periodic tests. Although RBS has an emergency only function, it is not considered part of the emergency core cooling System. A more accurate system for this statement is the Core Flood System, which is an ECCS system with an emergency only function.

UFSAR Section 6.3.2.5 indicates that all components of the ECCS systems are constructed of stainless steel. However, the statement does not address carbon steel portions of the High Pressure Injection (HPI) and Low Pressure Injection (LPI) which are not in contact with borated water. This activity clarified the statement to more accurately reflect the applicability to portions in contact with borated water.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reflect the as-built plant, current operating practices or approved programs does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. The statement of stainless steel construction applies to surfaces in contact with borated water. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Sections 6.3.1 and 6.3.2.5 were revised accordingly.

UFSAR CHANGES (Pkg 99-40)

DESCRIPTION

SYSTEM: Low Pressure Injection (LPI)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity updated UFSAR Table 6-4 to clarify LPI ES piping node descriptions and conditions that were revised based on a system upgrade identified to the NRC. Node descriptions are clarified reflect as-built starting and end points. Further clarification is provided to address the differing design conditions between "B" Train piping and "A" train piping which was upgraded for a higher pressure. These clarifications, along with the clarification of LP injection valves which are no longer strictly considered reactor building isolation valves due to being open for accident mitigation, provides consistency with existing information in UFSAR Sections 6.2.3, 9.3.3.1, Table 6-7, and Figure 6-9. The proposed clarifications also provide consistency with the as-installed configurations depicted on the applicable flow diagrams.

SAFETY EVALUATION SUMMARY

This UFSAR correction has no impact on the LPI system's analysis, design, function, operation, or performance as previously evaluated in the SAR. Enhancing the UFSAR content to more accurately reflect the as-built plant and licensing basis does not adversely affect the integrity, operation or function of any systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Table 6-4 was updated accordingly.

UFSAR CHANGES (Pkg 99-41)

DESCRIPTION

SYSTEM: Condensate

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity corrects UFSAR 10.4.6.6 to reflect that the spare condensate booster pump starts automatically on low main feedwater pump suction header pressure. This change makes the UFSAR consistent with the plant elementary electrical diagrams.

SAFETY EVALUATION SUMMARY

This UFSAR correction has no adverse impact on the analysis, design, function, operation, or performance of any SSC as previously evaluated in the SAR. Enhancing the UFSAR content to more accurately reflect the as-built plant does not adversely affect the integrity, operation or function of any systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 10.4.6.6 was updated accordingly.

UFSAR CHANGES (Pkg 99-47)

DESCRIPTION

SYSTEM: ATWS, AMSAC, TBV

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 7.8.2 contains a description of the ATWS Mitigating System Actuation Circuitry (AMSAC) and Diverse Scram System (DSS) portions of the Anticipated Transient Without Scram (ATWS) circuitry. Applicable elementary diagrams and test acceptance criteria reflect that DSS provides the Turbine Bypass Valve (TBV) interface. UFSAR Section 7.8.2.2, applicable to DSS, is the better location for listing the DSS and TBV control setpoint interface and discussion of the function of DSS in TBV setpoint control.

SAFETY EVALUATION SUMMARY

This UFSAR correction has no adverse impact on the analysis, design, function, operation, or performance of any SSC as previously evaluated in the SAR. There is no physical change to the plant SSCs or operating procedures. Plant SSCs as evaluated in the SAR, are not adversely affected by this activity. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. No safety parameters, set points, or design limits are changed. There is no adverse impact to the nuclear fuel, cladding, RCS, or required containment systems. The margins of safety as defined in the bases to any Technical Specifications are not reduced as a result of this largely editorial change. This UFSAR change involves no safety concerns or USQs. No Technical Specification changes are required. UFSAR Section 7.8.2.1 and 7.8.2.2 were revised accordingly.

UFSAR CHANGES (Pkg 99-48)

DESCRIPTION

SYSTEM: Emergency Power

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. The discussion in UFSAR Section 8.1.2, "Onsite Power Systems" and 8.3.1.1, "System Descriptions", provides a description of the station electrical distribution and backup power systems. To provide a complete description of the onsite power system, the SSF was added. The discussion in UFSAR Section 8.3.2.2.4, "Station Blackout Analysis" discusses the SSF and its basis for reliability. The SSF reliability is partially based on the reliability of Keowee, the SSF batteries, the SSF diesel generator and supporting subsystems. To provide the basis for the SSF reliability a discussion of these additional subsystems was added.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reflect the as-built plant does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Sections 8.1.2, 8.3.1.1, and 8.3.2.2.4 were revised accordingly.

UFSAR CHANGES (Pkg 99-51)

DESCRIPTION

SYSTEM: Reactor Coolant System (RCS)

This evaluation was performed per PIP 98-5940 to update UFSAR Sections 3.2.2.1 and 5.2.2.1 to document the completion of the Class 1 fatigue analysis of the Reactor Coolant Branch Lines. Oconee had committed to the NRC to complete the analyses by August 31, 1999. The analyses were completed by the commitment date. The following branch lines were analyzed to Class 1 rules:

- High Pressure Injection (Emergency Injection)
- High Pressure Injection (Normal Injection)
- High Pressure Injection (Letdown)
- Low Pressure Injection (Decay Heat Removal Drop-Line)
- Low Pressure Injection (Core Flood)
- Reactor Coolant Drain Lines
- Pressurizer Spray
- Pressurizer Relief Valve Nozzles

SAFETY EVALUATION SUMMARY

These revisions to the UFSAR reflect the reanalysis of the Reactor Coolant Branch Lines to Class 1 rules. These analyses properly evaluated the branch lines for fatigue causing mechanisms and as such enhance the safety of the plant by providing evaluations that ensure possible breaches of the piping pressure boundary will not occur for anticipated transients. This UFSAR revision does not involve any physical changes to the facility, nor does it alter its design bases. The revisions do not change procedures or methods of operation. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR Sections 3.2.2.1 and 5.2.2.1 were revised accordingly.

UFSAR CHANGES (Pkg 99-52)

DESCRIPTION

SYSTEM: Standby Shutdown Facility (SSF).

This evaluation was performed per PIP 98-2055, CA #99 to update the component information for the SSF Sump Pump and the Diesel Engine Fuel Oil Transfer Pump in Table 9-14 of the UFSAR as described below:

SSF Sump Pump

<u>Original Description</u>	<u>New Description</u>
Design Pressure (psig) 50	Nameplate Design Pressure (psig) 75
Design Head (ft) 44	Design Head from Pump Head Curve (ft) 44

Diesel Engine Fuel Oil Transfer Pump

<u>Original Description</u>	<u>New Description</u>
Design Pressure (psig) 50	Nameplate Design Pressure (psig) 150
Design Temperature (°F) 125	Nameplate Design Temperature (°F) 125
Design Flow Rate (gpm) 13	Design Flow Rate (gpm) 13.6
Design Head (ft) 81	Differential Pressure (psid) 30

SAFETY EVALUATION SUMMARY

This revision to the UFSAR is being made so that component information in the UFSAR agrees with component nameplate information. No physical changes to plant equipment or operating procedures were made due to this change. The changes made to the Table 9-14 component design information either clarifies the description of the information shown or changes the design parameter to a more conservative number that matches nameplate and/or manufacturers design information. This UFSAR revision does not involve any physical changes to the facility, nor does it alter its design bases. These revisions do not change procedures or methods of operation. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR Table 9-14 was revised accordingly.

UFSAR CHANGES (Pkg 99-54)

DESCRIPTION

SYSTEM: CCW, ECCW

This evaluation was performed per PIP 98-3814 to add the Condenser Circulating Water (CCW) discharge piping and the Emergency CCW piping (structural portion) to UFSAR Table 3-2. Both are classified as Class 2 structures and able to withstand the maximum hypothetical earthquake (MHE).

SAFETY EVALUATION SUMMARY

This change is for clarity and completeness of the UFSAR descriptions. This activity does not in any way change the physical characteristics of the Station or any of its operations. Plant SSCs as evaluated in the SAR, are not adversely affected by this activity, which simply corrects the descriptions to match the as-built plant. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. No plant safety limits, setpoints or design parameters are adversely impacted. There are no adverse effects on reactivity. There are no physical changes to the plant or operating procedures. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR Table 3-2 was revised accordingly.

UFSAR CHANGES (Pkg 99-55)

DESCRIPTION

SYSTEM: CCW

This evaluation was performed per PIP 98-3814 to correct the quantity of water trapped in the Condenser Circulating Water (CCW) system, below 791 feet elevation, following loss of all external water supplies. The number in UFSAR Section 2.4.11.6 was changed from 8,825,000 to 8,776,948 gallons based on calculation OSC-2284.

SAFETY EVALUATION SUMMARY

This change is for clarity and correctness of the UFSAR descriptions. The revised water volume is adequate to support decay heat removal for all three units for 37 days, as required. This activity does not in any way change the physical characteristics of the Station or any of its operations. Plant SSCs as evaluated in the SAR, are not adversely affected by this activity, which simply corrects the descriptions to match the as-built plant. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. No plant safety limits, setpoints or design parameters are adversely impacted. There are no adverse effects on reactivity. There are no physical changes to the plant or operating procedures. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR Section 2.4.11.6 was revised accordingly.

UFSAR CHANGES (Pkg 99-59)

DESCRIPTION

SYSTEM: Reactor Coolant (RCS)

This evaluation was performed per PIP 99-3613 and Procedure OP/0/A/1106/031 to provide an alternate method to calculate Steam Generator Tube Leakage during the startup process. UFSAR Section 5.2.3.10.3 was revised to address Xenon and Tritium sampling. This method compares Noble Gas concentrations (Xenon and/or Krypton) between the Reactor Coolant System and the Condenser Off Gas System. The Noble Gas samples are obtained at approximately the same time to account for the fact that the Xenon concentrations in the Reactor Coolant System and the Condenser Off Gas System are transient during a unit startup. This sampling method will be performed between approximately 15 percent reactor power and full power steady state operation for at least 48 hours. After a unit has been operating at a steady state power level for approximately 48 hours, sufficient Xenon is available to set the Condenser Off Gas Radiation Monitor setpoints, and the alternate method to calculate Steam Generator Tube Leakage per this procedure is no longer be required. The method for determining Steam Generator Tube Leakage below 15 percent reactor power is the comparison of Tritium concentrations between the Reactor Coolant System and the secondary system. Tritium sampling and analysis is performed by the Chemistry department and is not included in this procedure.

SAFETY EVALUATION SUMMARY

Use of the alternate method to determine Steam Generator Tube Leakage does not degrade the level of nuclear safety. The sampling of the Reactor Coolant System and the Condenser Off Gas System use previously existing procedures and do not affect the operation of Safety Related Systems or systems that support Safety Related Systems. This procedure change simply ensures that the Technical Specification limit for Steam Generator Tube Leakage Limit is not exceeded during a unit startup when low and transient Xenon concentrations exist in the RCS. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. No plant safety limits, setpoints or design parameters are adversely impacted. There are no adverse effects on reactivity. There are no physical changes to the plant. This change does not involve an unreviewed safety question. Tech Spec Bases 3.1.6 and UFSAR Section 5.2.3.10.3 were revised accordingly.

UFSAR CHANGES (Pkg 99-62)

DESCRIPTION

SYSTEM: Low Pressure Service Water (LPSW)

This evaluation was performed per PIP 99-3318 to revise UFSAR Section 7.5.2.46. This section previously stated, "The inlet temperature of the LPSW by design is based on a maximum temperature of 75°F from near the bottom of Lake Keowee. The section was revised to state, "The temperature of LPSW is essentially the same as the temperature of Lake Keowee at the CCW pump suction." This revision was done to prevent confusion between the original design temperature (75°F) of the LPSW System and the current design temperature of LPSW (100°F).

SAFETY EVALUATION SUMMARY

The design temperature of the LPSW System is already provided in UFSAR Table 6-4. There is no physical change to the plant SSCs or operating procedures. Plant SSCs as evaluated in the SAR, are not adversely affected by this activity. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. No safety parameters, set points, or design limits are changed. There is no adverse impact to the nuclear fuel, cladding, RCS, or required containment systems. The margins of safety as defined in the bases to any Technical Specifications are not reduced as a result of this largely editorial change. This UFSAR change involves no safety concerns or USQs. No Technical Specification changes are required. UFSAR Section 7.5.2.46 was revised accordingly.

UFSAR CHANGES (Pkg 99-76)

DESCRIPTION

SYSTEM: Emergency Core Cooling (ECCS)

This safety evaluation, performed per PIP 98-3893, revised information within UFSAR Sections 6.3.2.6.3, Table 6-16, and Table 6-17 (previously FSAR Supplement 15). This information provided no credible value to the UFSAR description of the ECCS. Rather, the extraneous information has historically provided a source of confusion with respect to both content and intent. Even from a historical perspective, the information was obsolete and unnecessary, and therefore much of it was deleted. Specific valve design information, type, category, class, etc. is available from controlled plant drawings and specifications. Vendor or manufacturer information is generally irrelevant. Instead, reference to current regulatory required programs was inserted into Section 6.3.2.6.3 to describe the means utilized to assure ECCS active valve operability. Details of each applicable regulatory required program (EQ, 89-10, IST, ISI, QA, etc.) was not placed within Section 6.3.2.6.3 since such information would be redundant to other UFSAR Sections and other SAR documents.

SAFETY EVALUATION SUMMARY

When the subject verbiage was originally included in the UFSAR, such programs as Environmental Qualification (EQ) program (10CFR50.49), MOV Diagnostic program (GL 89-10), Inservice Testing/Inspection Program (10CFR50.55a), Containment Leakage Program (10CFR50 Appendix J), Quality Assurance Program (10CFR50 Appendix B), etc. were not yet available. Now, adherence to these programs ensures that active valves functioned as designed. Adding, correcting, clarifying or deleting UFSAR information to more accurately reflect the as-built plant, current operating/testing practices or approved programs does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Section 6.3.2.6.3, Table 6-16, and Table 6-17 were revised accordingly.

UFSAR CHANGES (Pkg 99-81)

DESCRIPTION

SYSTEM: Radwaste Facility (RWF)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 11.6.3.6.2.2, "Air Conditioning System," contained inaccurate statements regarding the areas of the RWF that are provided with air conditioning. The UFSAR previously indicated that an area called the "RP Lab" is air-conditioned. However, General Arrangement drawing O-330-11 identifies this room as the "Chem & HP Lab" rather than the "RP Lab". The existing UFSAR discussion of air-conditioned RWF spaces also omits the Men and Women's Clean Change Areas, the Contaminated Maintenance Shop (Room 218), the drumming station area (near Room 109), and the hallway (Room 203) between the "Chem & HP Lab" and the "Clean Maintenance Shop". RWF flow diagrams, general arrangement drawings, and HVAC layout drawings all indicate that the Men and Women's Clean Change Areas and the Contaminated Maintenance Shop, as well as the above hallway and drumming station, are air-conditioned spaces. Furthermore, UFSAR wording that "the 'Hot Instrument shop' and personnel areas will be air conditioned..." is inconsistent with plant documentation which do not identify a "Hot Instrument Shop", but rather a "Contaminated Maintenance Shop". The statement was also inconsistent with the previous UFSAR statement in that the "Hot Instrument Shop" is not identified in the listing of the areas supplied with air conditioning.

SAFETY EVALUATION SUMMARY

These changes were made to clarify, correct, and enhance the UFSAR RWF systems descriptions and current operating practices. It is reasonable to revise UFSAR Section 11.6.3.6.2.2 so that it more clearly and completely identifies the areas of the RWF that are air-conditioned. This activity will not change any RWF component design information discussed in the SAR, nor will it change any information such that RWF components could be prevented from performing their required functions. This change does not affect the design, function or operation of plant SSCs. They do not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 11.6.3.6.2.2 was revised accordingly.

UFSAR CHANGES (Pkg 99-82)

DESCRIPTION

SYSTEM: Radwaste Facility (RWF)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 11.6.1.1 provides a description of the Safety Evaluation of the Radwaste Facility at Oconee. The section describes the incinerator (part of the Volume Reduction and Solidification system), but the description was not complete. This activity changed the wording as follows:

“In accordance with 10CFR20.305, pursuant to 10CFR20.302 (now addressed in 10CFR20.2004, pursuant to 10CFR20.2002), Duke requested NRC approval to operate a low-level radioactive waste incinerator, discussed in Section 11.6.3.3, "Volume Reduction and Solidification System", under the ONS Operating License and Technical Specifications (Reference 1).”

SAFETY EVALUATION SUMMARY

These changes were made to clarify, correct, and enhance the UFSAR RWF systems descriptions, current operating practices, and licensing information. This activity will not change any RWF component design information discussed in the SAR, nor will it change any information such that RWF components could be prevented from performing their required functions. This change does not affect the design, function or operation of plant SSCs. They do not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 11.6.1.1 was revised accordingly.

UFSAR CHANGES (Pkg 99-83)

DESCRIPTION

SYSTEM: Low Pressure Service Water (LPSW)

Minor Modifications ONOE-13892, 13893 & 13894 and NSM-23057 deleted the Post Accident Monitoring (PAM) chart recorders LPSCR1000 on all three units. Credit for the plant Operator Aid Computer (OAC) is taken for providing the "Recording of Instrumentation Readout Information" required for the design criteria for Regulatory Guide 1.97 Category 1 instrumentation. The input to the OAC already exists. The changes associated with the modification are within the guidelines of Regulatory Guide 1.97.

SAFETY EVALUATION SUMMARY

The OAC and Duke's data archival program (PI) are suitable for the recording requirement to "continuously update, store in computer memory and display on demand". This modification did not change the ability of the LPSW flow to the LPI cooler instrumentation to meet the requirements of Regulatory Guide 1.97 section 1.3.1g for Category 1 variables. The safety related signals used for input to the non-safety related plant computer are currently isolated from the plant computer by way of QA-1 isolation devices. No new safety to non-safety (or QA-1 to non-QA-1) interfaces were added. The plant computer is capable of recording the instrument range specified in the Duke RG 1.97 submittal, the UFSAR and the Technical Specification Bases. The modification creates no single failures that could cause the loss of both trains of the indication of LPSW flow to the LPI Decay Heat coolers. There are no seismic, QA, environmental or fire protection concerns. Plant SSCs as evaluated in the SAR, are not adversely affected by this activity. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. No safety parameters, set points, or design limits are changed. There is no adverse impact to the nuclear fuel, cladding, RCS, or required containment systems. This modification involves no USQs or safety concerns. No Technical Specification changes are required. UFSAR Section 7.5.1.4.1 and 7.5.2.58 were revised accordingly.

UFSAR CHANGES (Pkg 99-84)

DESCRIPTION

SYSTEM: Radwaste Facility (RWF)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 11.6.7.2.1, "Source Terms," was revised to reflect that there are three source terms pertinent to the RWF and to clarify the relationship between ANSI N237.

UFSAR Section 11.6.7.2.2, was clarified to reflect that station general arrangement drawings and system diagrammatics are not generally marked to denote radiation zones. Instead, figures in the Environmental Qualification Criteria Manual (EQCM) are marked to denote radiation zones.

SAFETY EVALUATION SUMMARY

These changes were made to clarify, correct, and enhance the UFSAR RWF systems descriptions, current operating practices, and licensing information. This activity will not change any RWF component design information discussed in the SAR, nor will it change any information such that RWF components could be prevented from performing their required functions. This change does not affect the design, function or operation of plant SSCs. They do not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Sections 11.6.7.2.1 and 11.6.7.2.2 were revised accordingly.

UFSAR CHANGES (Pkg 99-85)

DESCRIPTION

SYSTEM: Radwaste Facility (RWF)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 11.2.2.1 describes that the Interim Radwaste Building (IRB) has the necessary equipment to process liquid waste, but that current operating practices do not make use of the facility. The Radwaste Facility (RWF), as discussed in UFSAR section 11.6 is currently utilized for processing of liquid wastes. This activity updated the IRB sump and drainage path discussions in UFSAR for consistency with the existing IRB flow diagram. Also to more clearly indicate that the IRB systems are not utilized, and to include a discussion of RWF drains that is consistent with the applicable RWF flow diagrams

SAFETY EVALUATION SUMMARY

These changes were made to clarify, correct, and enhance the UFSAR RWF systems descriptions, current operating practices, and licensing information. This activity will not change any RWF or IRB component design information discussed in the SAR, nor will it change any information such that RWF components could be prevented from performing their required functions. This change does not affect the design, function or operation of plant SSCs. They do not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 11.2.2.1 was revised accordingly.

UFSAR CHANGES (Pkg 99-86)

DESCRIPTION

SYSTEM: Radwaste, Liquid Waste Disposal (LWD)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Table 11-6 provides component data for the waste disposal systems and includes such information as Design Pressure, Quantity, Volume, Material, Capacity, Differential Head, etc. The Table design information for the Low Activity Waste Tank (LAWT) pump and High Activity Waste Tank (HAWT) pump was corrected to match vendor data and the as-built plant.

SAFETY EVALUATION SUMMARY

These changes were made to clarify, correct, and enhance the UFSAR Radwaste systems descriptions, current operating practices, and licensing information. The function and operation of the LAWT and HAWT pumps in collecting liquid radwaste, as an initial step in transfer, processing, and controlled/monitored release is not impacted by this UFSAR clarification for consistency with the applicable performance curves. This revision has no impact on LWD or radwaste facility design, function, or operation as previously evaluated in the SAR. This activity will not prevent any SSC from performing its required functions. This change does not affect the design, function or operation of plant SSCs. They do not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Table 11-6 was revised accordingly.

UFSAR CHANGES (Pkg 99-87)

DESCRIPTION

SYSTEM: Waste Gas Treatment

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity involves addition to Section 11.3.2.2 to more accurately describe the operation of the Waste Gas Treatment system.

SAFETY EVALUATION SUMMARY

These changes were made to clarify, correct, and enhance the UFSAR waste systems descriptions, current operating practices, and licensing information. This revision has no impact on waste gas treatment system design, function, or operation as previously evaluated in the SAR. This activity will not prevent any SSC from performing its required functions. This change does not affect the design, function or operation of plant SSCs. They do not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 11.3.2.2 was revised accordingly.

UFSAR CHANGES (Pkg 99-88)

DESCRIPTION

SYSTEM: Gaseous Waste Disposal (GWD)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity involves addition to Section 11.3.1 to more accurately describe the design/operation of the GWD system.

SAFETY EVALUATION SUMMARY

These changes were made to clarify, correct, and enhance the UFSAR waste systems descriptions, current operating practices, and licensing information. This revision has no impact on GWD system design, function, or operation as previously evaluated in the SAR. This activity will not prevent any SSC from performing its required functions. This change does not affect the design, function or operation of plant SSCs. They do not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 11.3.1 was revised accordingly.

UFSAR CHANGES (Pkg 99-89)

DESCRIPTION

SYSTEM: Radiation Indication Alarms (RIAs)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. Clarifications to UFSAR Section 11.5.2 and Table 11-7 are being made by this activity to provide consistency with applicable plant documentation (e.g. flow diagrams, elementary/connection diagrams, and vendor material) and to correct slight UFSAR inaccuracies. Selected RIA ranges, sensitivities, dimensions, etc. were updated to reflect the current design.

SAFETY EVALUATION SUMMARY

This change does not affect the design, function, or operation of the plant SSCs. The Radiation Monitors associated with this activity are non-safety related. The plant RIAs as evaluated in the SAR are not adversely affected by this activity which simply provides for enhanced accuracy. It does not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 11.5.2 and Table 11-7 were revised accordingly.

UFSAR CHANGES (Pkg 99-91)

DESCRIPTION

SYSTEM: Low Pressure Service Water (LPSW)

This evaluation was performed per PIP 00-217 to revise UFSAR Section 11.5.2 was revised to clarify that only the LPSW main discharge headers from the Auxiliary Building are monitored by 1/2/3RIA-35 for radioactivity. The LPSW main headers are monitored since they can contain radioactive leakage from normally radioactive systems due to component failures. The LPSW discharge from the HPI Pump motor coolers and air handling units inside the Auxiliary Building are not monitored for radioactivity because radioactive inleakage from these components is not credible. Section 9.2.2.2.3 was also revised to delete the description of the portions of the LPSW system that are monitored because this information is already provided in UFSAR Section 11.5.2.

SAFETY EVALUATION SUMMARY

Per UFSAR Section 11.5.1, radiation monitors are provided on various non-radioactive cooling water systems to detect leakage from normally radioactive systems due to any component failures. This statement is consistent with the original Unit 1 SER which states, "low pressure cooling water systems used to cool components containing reactor coolant are monitored regularly to detect radioactive in-leakage". These two statements define Oconee's design basis for radiation monitoring. There is no physical change to the plant SSCs or operating procedures. Plant SSCs as evaluated in the SAR, are not adversely affected by this activity. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. No safety parameters, set points, or design limits are changed. There is no adverse impact to the nuclear fuel, cladding, RCS, or required containment systems. The margins of safety as defined in the bases to any Technical Specifications are not reduced. This UFSAR change involves no safety concerns or USQs. No Technical Specification changes are required. UFSAR Sections 9.2.2.2.3 and 11.5.2 were revised accordingly.

UFSAR CHANGES (Pkg 99-92)

DESCRIPTION

SYSTEM: Liquid Waste Treatment

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 11.2.1 provides a discussion of the disposal methods and limits for liquid waste. A similar discussion is contained in section 11.3.1, for gaseous waste management. However, section 11.3.1 also contains the statement that "Waste releases from the three units are integrated and controlled by process radiation monitors, interlocks, and by the operator so as not to exceed the appropriate station release limits. Where effluents can be released from more than one location, administrative controls are also provided to insure that station limits are not exceeded." Applicable flow and elementary diagrams, as well as procedures, for liquid waste management support that the statement also applies to the liquid waste management systems. This activity revised UFSAR Section 11.2.1 to include the applicability of the above statement to the liquid waste disposal methods and limits.

SAFETY EVALUATION SUMMARY

These changes were made to clarify, correct, and enhance the UFSAR liquid waste systems descriptions, current operating practices, and licensing information. This revision has no impact on waste treatment system design, function, or operation as previously evaluated in the SAR. This activity will not prevent any SSC from performing its required functions. This change does not affect the design, function or operation of plant SSCs. They do not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 11.2.1 was revised accordingly.

UFSAR CHANGES (Pkg 99-93)

DESCRIPTION

SYSTEM: Solid Waste Management

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 11.1 was revised to include a brief discussion of the solid waste management system design basis.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reflect the as-built plant does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Section 11.1 was revised accordingly.

UFSAR CHANGES (Pkg 99-95)

DESCRIPTION

SYSTEM: Liquid Waste Treatment

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Figure 11-5, "Liquid Waste Effluent Monitors" is obsolete, contains no pertinent information required for licensing, and is not directly referenced by any of the text in UFSAR Chapter 11 or other UFSAR sections. This figure was not part of the original FSAR. This activity deleted UFSAR Figure 11-5.

SAFETY EVALUATION SUMMARY

Adding, correcting, clarifying or removing UFSAR information to more accurately reflect the as-built plant, current operating practices, or licensing requirements does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. Deleting UFSAR Figure 11-5 to remove unnecessary information, some of which is illegible, does not change any liquid waste disposal and/or monitoring equipment function and will not change any SAR conclusions. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Figure 11-5 was deleted.

UFSAR CHANGES (Pkg 99-96)

DESCRIPTION

SYSTEM: Gaseous Waste Disposal (GWD)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised UFSAR Section 11, Appendix 11, Chapter 11: Figures and Tables, Figure 11-3, "Gaseous Waste Disposal System" to clarify the location of the first discharge flow meter relative to the Gas Exhauster discharge line, and of the GWD discharge radiation monitor relative to the Hydrogen Purge System connection to the GWD discharge header, as well as to include the Vent Condenser and Drainer as one of the sources of gaseous waste collected by the GWD Vent Header for processing by the Gaseous Waste Disposal System.

SAFETY EVALUATION SUMMARY

These changes were made to clarify, correct, and enhance the UFSAR gaseous waste systems as-built descriptions. This revision has no impact on the GWD system design, function, or operation as previously evaluated in the SAR. This activity will not prevent any SSC from performing its required functions. This change does not affect the design, function or operation of plant SSCs. They do not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Figure 11-3 was revised accordingly.

UFSAR CHANGES (Pkg 99-97)

DESCRIPTION

SYSTEM: Radwaste

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised UFSAR Table 11-6, "Waste Disposal System Component Data (Component Quantities for Three Units)," to make the information tabulated therein more consistent with the actual station configuration and system nomenclature, as depicted on various flow diagrams.

SAFETY EVALUATION SUMMARY

These changes were made to clarify, correct, and enhance the UFSAR radwaste systems as-built descriptions. This revision has no impact on the any system design, function, or operation as previously evaluated in the SAR. This activity will not prevent any SSC from performing its required functions. This change does not affect the design, function or operation of plant SSCs. They do not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Table 11-6 was revised accordingly.

UFSAR CHANGES (Pkg 99-98)

DESCRIPTION

SYSTEM: None

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Table 1-1 is the table for key dates in Oconee history, discussing the construction period, important associated dates, and issuance dates for the operations license. The date for NRC approval for first extension of Unit 1 construction permit was corrected to 8/30/71 instead of 8/27/71. This change is supported by an August 30, 1971, letter from PA Morris (Atomic Energy commission) to AC Thies (Duke) for construction permit extension to January 31, 1972. The Unit 3 Operating License date was changed to 7/19/74 versus 10/6/73. This change is supported by a July 19, 1974; letter from A Schwencer (Atomic Energy commission) to AC Thies (Duke) which issued the Facility Operating License for Oconee Unit 3.

SAFETY EVALUATION SUMMARY

Correcting UFSAR information to more accurately reflect the as-built plant, current operating practices, or licensing documentation does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Table 1-1 was revised accordingly.

UFSAR CHANGES (Pkg 99-100)

DESCRIPTION

SYSTEM: Reactor Coolant (RCS)

UFSAR Change 99-100 represents a significant revision to the Oconee UFSAR non-LOCA accident analyses. This voluminous change was performed in conjunction with License Amendment 309,309,309 and with parts also done under the 10CFR50.59 regulation. With the review and approval of DPC-NE-3005 by the NRC, Duke revised and/or replaced many of the analyses currently in Chapter 15 and modified UFSAR other affected sections accordingly. See Attachment 2 for the list of the individual UFSAR changes and descriptions.

SAFETY EVALUATION SUMMARY

See summaries for calculations OSC-6583 Rev 1, and OSC-7541.

UFSAR CHANGES (Pkg 99-102)

DESCRIPTION

SYSTEM: Radwaste

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised UFSAR Section 1.2.2.9 for consistency with sections 11.2.2.3 and 11.6.3.1. The term "storage" was replaced with "holdup" to indicate the liquid waste material is not actually being "stored." This change reduces the possible confusion of storage as an environmental concern by indicating that the liquid waste is placed in a holding area awaiting processing.

SAFETY EVALUATION SUMMARY

These changes were made to clarify and enhance the UFSAR Radwaste systems descriptions and current operating practices. This change does not affect the design, function or operation of plant SSCs. They do not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 1.2.2.9 was revised accordingly.

UFSAR CHANGES (Pkg 99-103)

DESCRIPTION

SYSTEM: 525 kV Electrical Power

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised UFSAR Section 1.2.2.6 to change the description of the transmission lines from 500 kV to 525 kV. This change provides for consistency with UFSAR Section 8.1 and 8.2 and the as built plant electrical drawings.

SAFETY EVALUATION SUMMARY

Correcting UFSAR information to more accurately reflect the as-built plant, current operating practices, or licensing documentation does not in any way adversely affect the design, integrity, operation or function of the electrical power system. The system is not adversely affected by this activity, which provides consistency and clarity. It does not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 1.2.2.6 was revised accordingly.

UFSAR CHANGES (Pkg 99-104)

DESCRIPTION

SYSTEM: Radwaste

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised UFSAR 1.2.2.9 to clarify the current operational status of the Interim Radwaste Building (IRB). It also adds consistency with discussions of the Interim Radwaste Building in UFSAR. Section 11.2.2.1 indicates that the Interim Radwaste Building has the equipment necessary to process radwaste, but these facilities are no longer in use. Although it is not a normal process option, liquid waste could always be transferred to the Interim Radwaste Building.

SAFETY EVALUATION SUMMARY

These changes were made to correct, clarify and enhance the UFSAR Radwaste systems descriptions and current operating practices. This change does not affect the design, function or operation of plant SSCs. They do not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 1.2.2.9 was revised accordingly.

UFSAR CHANGES (Pkg 99-105)

DESCRIPTION

SYSTEM: Containment Isolation

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity clarified the UFSAR Section 1.2.2.3 brief description of the containment isolation system that is also described in UFSAR Section 6.2.3 and Table 6-7. Additional discussion on the various combinations of check valves, normally closed manual valves, or automatic remotely operated valves actuated by signals received from the Engineered Safeguards Protective System was provided. This update provides consistency between UFSAR Sections 1.2.2.3 and 6.2.3 in the description of containment isolation valve activation.

SAFETY EVALUATION SUMMARY

Clarifying UFSAR information to more accurately reflect the as-built plant, current operating practices, or licensing documentation does not in any way adversely affect the design, integrity, operation or function of the electrical power system. The system is not adversely affected by this activity, which provides consistency and clarity. It does not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 1.2.2.3 was revised accordingly.

UFSAR CHANGES (Pkg 99-106)

DESCRIPTION

SYSTEM: Penetration Room Ventilation (PRVS)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised UFSAR Table 1-2 to add the PRVS and the equipment designated as Engineered Safeguards Equipment: two fans, and two filter assemblies. Also revised UFSAR Section 3.1.1.1 to include the PRVS, and its safety function, as an additional Engineered Safeguards function. The revision improves consistency with other related UFSAR Sections.

SAFETY EVALUATION SUMMARY

Adding, correcting, or clarifying UFSAR information to more accurately reflect the as-built plant, current operating practices, or licensing requirements does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This revision enhances the discussion of the PRVS and does not result in any plant modifications. This change does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no affect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No Technical Specification changes are required. There are no unreviewed safety questions or safety concerns. UFSAR Section 3.1.1.1 and Table 1-2 were revised accordingly.

UFSAR CHANGES (Pkg 99-107)

DESCRIPTION

SYSTEM: Radwaste

This safety evaluation supports changes to UFSAR Sections 11.2.2.3, 11.3.2.3, 11.5.2, and Tables 11-1, 7. This revision simply identifies information contained in UFSAR Section 11.3.2.3 and Table 11-1, regarding potential effluent generation rates, as original or historical values. Actual plant effluent generation is routinely reported to the NRC. The change also corrects and enhances the clarity of summary regarding certain RIAs.

SAFETY EVALUATION SUMMARY

These changes were made to clarify, correct, and enhance the UFSAR Radwaste systems descriptions and current operating practices. This change does not affect the design, function or operation of plant SSCs. They do not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Sections 11.2.2.3, 11.3.2.3, 11.5.2, and Tables 11-1, 7 were revised accordingly.

UFSAR CHANGES (Pkg 99-108)

DESCRIPTION

SYSTEM: Reactor Building Purge

This evaluation was performed per PIP 98-3895 to UFSAR Section 7.5.2.53 to reflect the correct: (1) design flow through the Unit vent stack based on calculation OSC-7501 and, (2) the actual range of the instruments measuring such flow.

SAFETY EVALUATION SUMMARY

The range of the instruments still meets the RG 1.97 range criteria of 0-110% of design flow. This activity does not in any way change the physical characteristics of the plant or any of its operations. Plant SSCs as evaluated in the SAR, are not adversely affected by this activity, which simply provides correction for enhanced accuracy. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. No plant safety limits, setpoints or design parameters are adversely impacted. There are no adverse effects on reactivity. There are no physical changes to the plant or procedures. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR Sections 7.5.2.53 was revised accordingly.

UFSAR CHANGES (Pkg 99-109)

DESCRIPTION

SYSTEM: Meteorological

This safety evaluation supports changes to UFSAR Figure 2-24, "Relative Elevations of Meteorological Instruments". The figure was revised to incorporate the results of a survey conducted on the tower base elevation in May 1999. The current elevation of the base of the northwest meteorological tower was corrected from 855 feet, 8 inches, to 854 feet, 7.4 inches.

SAFETY EVALUATION SUMMARY

This UFSAR revision corrected the elevation of the northwest meteorological tower to agree with the most recent survey results. This change does not adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Figure 2-24 was revised accordingly.

UFSAR CHANGES (Pkg 99-110)

DESCRIPTION

SYSTEM: Containment

This safety evaluation revised UFSAR Sections 3.1.55 and 3.8.1.7.4 to clarify that the pressure requirements and time intervals for performing integrated leak rate testing (ILRT). ILRTs must be performed at maximum calculated peak accident containment pressures. Test intervals are based on performance. Intervals between ILRTs may be extended up to 10 years based on the performance of the reactor building with respect to containment leakage rates.

SAFETY EVALUATION SUMMARY

The revision of this information in the UFSAR is to reflect the accurate as-built plant descriptions, current operating/testing practices, and regulatory requirements. Oconee Tech Spec Amendments 218, 218, and 215 implemented 10CFR 50 Appendix J, Option B for Type A testing which set the test pressures and intervals as addressed in the description section. This revision does not result in any plant modifications, procedure changes, or other activities that could involve an unreviewed safety question. This change does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no affect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No Technical Specification changes are required. There are no unreviewed safety questions or safety concerns. UFSAR Sections 3.1.55 and 3.8.1.7.4 were revised accordingly.

UFSAR CHANGES (Pkg 99-112)

DESCRIPTION

SYSTEM: None

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 2.1.3 to ensure the discussion of the nearest population center is complete and consistent with the discussion of the largest population center also described in UFSAR Section 2.1.3.5. This activity does not alter any population data that is either currently used in emergency planning or that is historical.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reference the population center numbers does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Section 2.1.3 was revised accordingly.

UFSAR CHANGES (Pkg 99-113)

DESCRIPTION

SYSTEM: N/A

This activity simply encompasses all editorial changes made to the UFSAR for this update. These changes were performed under the generic 50.59 evaluation included in NSD-220. These changes include grammatical, format, spelling, typographical, administrative, clarification, and other non-technical type items. Brief descriptions of the individual changes are included in Attachment 2.

SAFETY EVALUATION SUMMARY

No Technical changes were made. No Technical Specification changes are required. There are no unreviewed safety questions or safety concerns. No Selected Licensee Commitment changes were required. The UFSAR was updated accordingly.

UFSAR CHANGES (Pkg 99-117)

DESCRIPTION

SYSTEM: None

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 2.1.3.1 describes the population distribution within 10 miles of the Oconee Site. The population distribution that is discussed is broken into two main parts. One part is the 1970 population distribution based on the 1970 United States Census. The other part is projections of the 2010 population distributions based on the 1970 United States Census. Based on the potential for future inconsistencies and an every ten year update requirement based on current wording, this activity revised UFSAR Section 2.1.3.1 as follows:

“The current population distribution is shown in Section J of the Oconee Nuclear Site Emergency Plan.”

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reference the most up to date population density numbers does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Section 2.1.3.1 was revised accordingly.

UFSAR CHANGES (Pkg 99-118)

DESCRIPTION

SYSTEM: Chemical Addition

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Sections 2.2.2.2 and 2.2.3.1.3 were revised to ensure consistency regarding the use and storage of chlorine and hydrazine at Oconee with site procedures, docketed correspondence, and a problem investigation process report.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reference the most up to date as-built plant and/or operating practices does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. There is no increase in the allowable quantities of hydrazine or chlorine onsite. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Sections 2.2.2.2 and 2.2.3.1.3 were revised accordingly.

UFSAR CHANGES (Pkg 99-119)

DESCRIPTION

SYSTEM: Meteorological Detection

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revises UFSAR Section 2.3.4.2 by adding the text "Pasquill D 60 percent of the time, 4 meters per second wind speed." to the discussion of the elevated release dispersion factors.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reference the most up to date as-built plant and/or operating practices does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. There is no increase in the allowable quantities of hydrazine or chlorine onsite. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Sections 2.3.4.2 was revised accordingly.

UFSAR CHANGES (Pkg 99-120)

DESCRIPTION

SYSTEM: None

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Table 2-94 lists of all significant earthquakes (of intensity V or greater) in the southeast United States. The table was corrected to reflect that the December 12, 1879 Charlotte NC earthquake was actually located at latitude 35.2N and longitude 80.8W.

SAFETY EVALUATION SUMMARY

Correcting UFSAR information to more accurately reflect the as-built plant, current operating practices, or licensing documentation does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Table 2-94 was revised accordingly.

UFSAR CHANGES (Pkg 99-121)

SAFETY EVALUATION SUMMARY

DESCRIPTION

SYSTEM: None

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised UFSAR Table 2-6 for consistency with similar information presented in the original FSAR. The projected 2010 population density within the "0-5 Miles" radius in the "ESE" sector was corrected from 3 to 33 persons per square mile. This change affects only the presentation of historical 1970 population data since more recent population statistics are maintained in the Oconee Nuclear Site Emergency Plan.

Correcting UFSAR information to more accurately reflect the as-built plant, current operating practices, or licensing documentation does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Table 2-6 was revised accordingly.

UFSAR CHANGES (Pkg 99-122)

DESCRIPTION

SYSTEM: Meteorological

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised UFSAR Section 2.3.3.2 by clarifying the current status of the dewpoint instrumentation. This equipment was previously removed from the meteorological tower by a modification. This revision to the UFSAR ensures its discussion of the meteorological system equipment is complete, that the discussion of this equipment is consistent .

SAFETY EVALUATION SUMMARY

This UFSAR revision reflects the removal of the dewpoint monitoring equipment. Dewpoint equipment is not required by Regulatory Guide 1.111 or other regulatory requirements. Correcting UFSAR information to more accurately reflect the as-built plant does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 2.3.3.2 was revised accordingly.

UFSAR CHANGES (Pkg 99-123)

DESCRIPTION

SYSTEM: Meteorological

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised UFSAR Section 2.3.4.2 so that it correctly references the SF₆ standardized release data form in Fig 2-35.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reference the most up to date as-built plant, operating practices, or licensing does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 2.3.4.2 was revised accordingly.

UFSAR CHANGES (Pkg 99-124)

DESCRIPTION

SYSTEM: Meteorological

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised UFSAR Tables 2-10, 2-15, 2-17, and 2-23 to correct minor errors in the tables. The changes affect the presentation of historical site meteorological data recorded prior to the plant's construction.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reference the most up to date as-built plant, operating practices, or licensing information does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. The corrections do not alter the data, the meaning of the data, or the interpretation of the data. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Section Tables 2-10, 2-15, 2-17, and 2-23 were revised accordingly.

UFSAR CHANGES (Pkg 99-126)

DESCRIPTION

SYSTEM: Low Pressure Injection (LPI)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 3.1.1.1 was revised to reflect that there are three Borated Water Storage Tank (BWST) QA-1 channels of level instrumentation.

SAFETY EVALUATION SUMMARY

The controlled plant elementary electrical drawings and UFSAR 7.5.2.6 confirm the adequacy of this change. This correction to the UFSAR has no impact on the LPI system's analysis, design, function, operation, or performance as previously evaluated in the SAR. Enhancing the UFSAR content to more accurately reflect the as-built plant does not adversely affect the integrity, operation or function of any systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 3.1.1.1 was updated accordingly.

UFSAR CHANGES (Pkg 99-127)

DESCRIPTION

SYSTEM: Standby Shutdown Facility (SSF).

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 3.3.2.1 was revised to reflect that the SSF tornado design parameters are different than other Class I structures.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reference the most up to date as-built plant, operating practices, or licensing information does not in any way adversely affect the design, integrity, operation or function of an SSF systems, structures and components. This UFSAR revision does not involve any physical changes to the facility, nor does it alter its design bases. These revisions do not change procedures or methods of operation. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR Section 3.3.2.1 was revised accordingly.

UFSAR CHANGES (Pkg 99-129)

DESCRIPTION

SYSTEM: Standby Shutdown Facility (SSF).

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 3.2.1.1.1 is a listing of Class 1 Structures that are designed to prevent uncontrolled release of radioactivity and withstand all loading without loss of function. The SSF is a class 1 structure, and was added to the list accordingly.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reference the most up to date as-built plant, operating practices, design or licensing information does not in any way adversely affect the design, integrity, operation or function of an SSF systems, structures and components. This UFSAR revision does not involve any physical changes to the facility, nor does it alter its design bases. These revisions do not change procedures or methods of operation. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR Section 3.2.1.1.1 was revised accordingly.

UFSAR CHANGES (Pkg 99-131)

DESCRIPTION

SYSTEM: Reactor Building Cooling Units and Sprays

This safety evaluation was performed per Corrective Action # 80 of PIP 98-2055. The language of UFSAR Section 9.4.6.3 was modified to state more accurately the criteria that the RBS and RBC systems are required to meet and to be consistent with sections 3.1.52 and 6.2.2.3. This design criterion requires that at least two independent systems, acting in full capacity, are capable of maintaining the post-accident Reactor Building pressure below the design limit under accident conditions. Analyses in OSC-7332 documents that this criterion has been met. Assuming a single failure in both the RBS and RBC systems, the combined systems can meet the design criterion (keep peak pressure less than or equal to 59 psig) and keep the containment temperature and pressure within environmental qualification (EQ) limits after a loss-of coolant or steam line break accident.

SAFETY EVALUATION SUMMARY

This UFSAR revision provides for a more accurate description of the functions of the RB Cooling systems. The revision does not result in any plant modifications, procedure changes, or other activities. This change does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no affect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No Technical Specification changes are required. There are no unreviewed safety questions or safety concerns. UFSAR section 9.4.6.3 was revised accordingly

UFSAR CHANGES (Pkg 99-132)

DESCRIPTION

SYSTEM: Reactor Building

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 3.8.1.7.2 lists instrumentation installed in the first Reactor Building. The three strain gauge item model designations were corrected. Also the section was revised to be consistent with Specification OSS-267.00-00-0090 and drawing O-78A.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reference the most up to date as-built plant, operating practices, design or licensing information does not in any way adversely affect the design, integrity, operation or function of any systems, structures and components. This UFSAR revision does not involve any physical changes to the facility, nor does it alter its design bases. These revisions do not change procedures or methods of operation. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR Section 3.8.1.7.2 was revised accordingly.

UFSAR CHANGES (Pkg 99-133)

DESCRIPTION

SYSTEM: Penetration Room Ventilation, Containment

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 3.1.70 contains a discussion on General Design Criterion number 70 as it relates to the “Control of Releases of Radioactivity to the Environment.” The discussion indicates that the Waste Disposal System be designed to insure the safety of station personnel and the general public from excessive exposure to radioactive material beyond the levels described in 10CFR20. An additional commitment to 10CFR50 Appendix I “Numerical Guides for the Design Objectives and Limiting Conditions for Operation to Meet the Criterion “As Low As is Reasonably Achievable” for Radioactive Material in Light-Water –Cooled Nuclear Power Reactor Effluents” was added. The statement “any potential penetration leakage will be into the Penetration Room” is not entirely accurate since there are some SAR described penetrations that are not located in the Pen Rooms. It is stated in UFSAR Sections 6.5.1.2 and 3.8.1.7.4 that the lines that do not pass through the penetration rooms are not considered a source of significant leakage as the penetrations are welded to the liner plate. This revision reflects that philosophy.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reference the most up to date as-built plant, operating practices, design or licensing information does not in any way adversely affect the design, integrity, operation or function of any systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 3.1.70 was revised accordingly.

UFSAR CHANGES (Pkg 99-137)

DESCRIPTION

SYSTEM: Radwaste

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Sections 11.2.2.1, 11.6.1.3, Table 11-6 and Figure 11-2 were revised. Replaced existing Fig 11-2 with an enhanced Figure. Corrected that Waste Transfer pump differential head is 200 ft. Updated that the Interim Radwaste Facility is not used for liquid processing.

SAFETY EVALUATION SUMMARY

These changes were made to clarify, correct, and enhance the UFSAR Radwaste systems descriptions, current operating practices, and licensing information. This activity will not change any RWF or IRB component design information discussed in the SAR, nor will it change any information such that RWF components could be prevented from performing the required functions. This change does not affect the design, function or operation of plant SSCs. They do not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 11.2.2.1, 11.6.1.3, Table 11-6 and Figure 11-2 were revised accordingly.

UFSAR CHANGES (Pkg 99-139)

DESCRIPTION

SYSTEM: Meteorological

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. An early study was performed in effort to provide verification of the 0-2 Hour Valley Drainage Model. This model was used to determine the dispersion factors (X/Q) for the site. This value is used to estimate the radiological impact of an accident on the site and the surrounding area. The experiments that were conducted, a gas-tracer test, involved the release of Sulfur Hexafluoride (SF6) gas. UFSAR Figures 2-36 and 2-37 were amended to more accurately reflect the full scope of the SF6 tests that were conducted.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reference the most up to date as-built plant, operating practices, or licensing does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Figures 2-36 and 2-37 were revised accordingly.

UFSAR CHANGES (Pkg 99-142)

DESCRIPTION

SYSTEM: None

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity provides minor corrections and additions to UFSAR Table 2-93 and Figures 2-40, 2-41, and 2-42. The changes involve the addition of missing notes and correction of erroneous data and inadequate cross-references.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reference the most up to date as-built plant, operating practices, or licensing does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. The affected table and figures are related to historical groundwater studies performed on the site prior to construction of Oconee Nuclear Station and do not in any way affect existing Oconee systems, structures, or components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Table 2-93 and Figures 2-40, 2-41, and 2-42 were revised accordingly.

UFSAR CHANGES (Pkg 99-148)

DESCRIPTION

SYSTEM: None

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. Body burden analysis is discussed in UFSAR Section 12.4.6. The relevant information was revised to reflect the procedure is given annually to all personnel that require radiation controlled access and personnel dosimetry. And, that additional body-burden analysis can be authorized to investigate various conditions, such as, pregnancy, upgrade in access, or change in employment. This activity will make the UFSAR consistent with Nuclear System Directive 507, Rev. 2) and station procedure (SH/0/B/2001/001, Rev. 0).

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reference the most up to date as-built plant, operating practices, radiological practices, or licensing does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 12.4.6 was revised accordingly.

UFSAR CHANGES (Pkg 99-149)

DESCRIPTION

SYSTEM: Liquid Waste

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 12.4.3 indicates that decontamination of work areas throughout the station are facilitated by the provision of janitor's sinks in the reactor containments and on the 2nd, 3rd, and 6th levels in the Auxiliary Building. This change replaced the level designations with corresponding elevations for enhanced description and consistency with other UFSAR sections, drawings and manuals.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reference the most up to date as-built plant, operating practices, or licensing does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 12.4.3 was revised accordingly.

UFSAR CHANGES (Pkg 99-152)

DESCRIPTION

SYSTEM: None

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 13.2.2.1 describes the General Employee Training (GET) program. GET is only given to personnel requiring unescorted access to the nuclear facility's protected area. Additional GET training (Radiation Worker Training) is required for unescorted access in to a Radiation Control Area (RCA) or a Radiation Control Zone (RCZ). Certain station support personnel as well as temporary personnel, depending on their work assignment in which entrance into the controlled area is not required, do not need this dedicated training. This activity revised the UFSAR to clarify the extent of GET training applicability.

SAFETY EVALUATION SUMMARY

Clarifying the UFSAR training program information to more accurately reflect the most up to date operating and radiological practices does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This change is largely editorial in nature. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 13.2.2.1 was revised accordingly.

UFSAR CHANGES (Pkg 99-153)

DESCRIPTION

SYSTEM: None

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised UFSAR Section 13.2.2.1.1 to remove the application of first aid as a primary function of the Fire Brigade. This change makes the UFSAR consistent with NSD 112 and NSD 119. No technical specification change is required.

SAFETY EVALUATION SUMMARY

This activity does not reduce the responsibility of onsite organizations during a site emergency since first aid responsibility has been transferred to Medical Emergency Response Team as defined in NSD 119. Clarifying the UFSAR information to more accurately reflect the most up to date procedures does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This change is largely editorial in nature. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 13.2.2.1.1 was revised accordingly.

UFSAR CHANGES (Pkg 99-154)

DESCRIPTION

SYSTEM: Security

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 13.6 describes the general scope of the Safeguard Activities encompassed by the Safeguard Plans and indicates the Code of Federal Regulations (CFR) that provides guidance for Oconee security. The commission has granted exemption from 10 CFR 73.55 section (d)(5) requiring the pictured badges be to collected at the access portal before all non-licensee employees go offsite. This exemption was granted by the NRC on April 9, 1997 and provided an alternative access control method using hand geometry biometrics system. This activity revised UFSAR Section 13.6 to be consistent with the licensing document and add the exemption section and the issuance date.

SAFETY EVALUATION SUMMARY

This activity does not reduce the effectiveness of the site Security Plan or the organization. Updating the UFSAR to more accurately reflect the most up to date security practices and procedures does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This change is largely editorial in nature. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 13.6 was revised accordingly.

UFSAR CHANGES (Pkg 99-156)

DESCRIPTION

SYSTEM: RBCU, PRVS

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 3.8.1.7.5 describes the surveillance program for the Reactor Building Cooling (RBCU) and the Penetration Room Ventilation Systems (PRVS). This activity updated UFSAR Section 3.8.1.7.5 to be consistent with the surveillance requirements, as stated in the Improved Technical Specifications Sections 3.6.5.7 and 3.7.10.3 for the Reactor Building Cooling Units and the Penetration Ventilation System. This revision replaced the requirement for annual testing with a reference to the Improved Technical Specifications test frequency.

SAFETY EVALUATION SUMMARY

Correcting or clarifying UFSAR information to more accurately reference the most up to date as-built plant, operating practices, testing or licensing requirements does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 3.8.1.7.5 was revised accordingly.

UFSAR CHANGES (Pkg 99-157)

DESCRIPTION

SYSTEM: Reactor Building (RB)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 3.8.1.6.1 is a listing of various acceptability tests that were performed on the aggregate for the concrete used in construction of the containment building. This revision simply corrected editorial errors and added identifiers for clarity and consistency with design specification OSS-160.00-00-0000.

SAFETY EVALUATION SUMMARY

Correcting UFSAR descriptions to more accurately reference the most up to date as-built plant and design information does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 3.8.1.6.1 was revised accordingly.

UFSAR CHANGES (Pkg 99-160)

DESCRIPTION

SYSTEM: Reactor Coolant (RCS)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised UFSAR Sections 3.9.3.1.1 and 5.2.1.5.1 for consistency with the original B&W design report regarding primary system materials. An error was corrected in the identification of a primary structural material.

SAFETY EVALUATION SUMMARY

Correcting UFSAR descriptions to more accurately reference the appropriate as-built plant and design information does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Sections 3.9.3.1.1 and 5.2.1.5.1 were revised accordingly.

UFSAR CHANGES (Pkg 99-161)

DESCRIPTION

SYSTEM: Reactor Coolant (RCS)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Tables 3-7 and 3-8 address properties of missiles, from the pressurizer and from Quench Tank and Instruments respectively, and include descriptions of the potential internal missiles considered in the internal missile hazards analysis (OBC-0826, Job No 6210 (C-13) Missile Analysis, 11/6/67). This activity provides clarification of the Missile Class III Pressurizer missile "Sample line 3/4" valve bonnet" in UFSAR Table 3-7 to describe the missile as "Sample line 3/4" valve bonnet and assembly, for consistency with the corresponding entries in OBC-0826. This activity also corrected a description in UFSAR Table 3-8 of "4" Valve bonnet valve", for the Missile Class I Quench Tank missile, to more accurately describe the missile as "4" Valve bonnet stud" for consistency with the corresponding entries in OBC-0826.

SAFETY EVALUATION SUMMARY

Correcting UFSAR descriptions to more accurately reference the appropriate as-built plant, design, and licensing information does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Tables 3-7 and 3-8 were revised accordingly.

UFSAR CHANGES (Pkg 99-163)

DESCRIPTION

SYSTEM: Reactor Building Cooling Units (RBCU)

This safety evaluation revised UFSAR Sections 6.2.2.2.4, 6.2.5 and 9.4.6.3, per PIP 98-3893 corrective action #6, to better reflect the current as-built plant configuration, operation and testing practices of the RBCUs. References were also added. The existing RBCU coils have been satisfactorily tested under simulated post-accident conditions to provide the required cooling capability.

SAFETY EVALUATION SUMMARY

The revision of this information in the UFSAR is to reflect the accurate as-built plant SSC descriptions of RB Cooling system. The revision does not result in any plant modifications, procedure changes, or other activities that could involve an unreviewed safety question. This change does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no affect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No Technical Specification changes are required. There are no unreviewed safety questions or safety concerns. No Selected Licensee Commitment changes were required. UFSAR Sections 6.2.2.2.4, 6.2.5 and 9.4.6.3 were revised accordingly.

UFSAR CHANGES (Pkg 99-166)

DESCRIPTION

SYSTEM: CRDM

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised UFSAR Section 4.2.4.1 to correct the historical description of Control Rod Drive Mechanism (CRDM) prototype lifetime testing. This activity provides consistency with the design basis documentation and makes the discussion for the Unit 1 & 2 testing consistent with the discussion for the Unit 3 testing.

SAFETY EVALUATION SUMMARY

Correcting UFSAR descriptions to more accurately reference the appropriate as-built plant, design, and licensing information does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. There is no affect on reactivity. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 4.2.4.1 was revised accordingly.

UFSAR CHANGES (Pkg 99-170)

DESCRIPTION

SYSTEM: Reactor Vessel

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised UFSAR Section 4.4.4.1 to correct the historical discussion of the reactor vessel flow distribution testing to match the temperatures given in BAW-10037. These changes ensure that the parameters listed in the UFSAR either match or bound the values reported in BAW-10037.

SAFETY EVALUATION SUMMARY

Correcting UFSAR descriptions to more accurately reference the appropriate as-built plant, design, and licensing information does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. There is no affect on reactivity. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 4.4.4.1 was revised accordingly.

UFSAR CHANGES (Pkg 99-174)

DESCRIPTION

SYSTEM: Control Room Area Cooling (CRAC)

This safety evaluation was performed per PIP 99-3324 and minor mod ONOE-14658 to document and correct discrepancies in the CRACS descriptions. The affected documents include UFSAR section 9.4.1.1, the CRVS DBD, the EQCM, and SLC 16.8.1. The temperature limits information provided in these documents were revised, upgraded and made consistent.

SAFETY EVALUATION SUMMARY

The purpose of the CRACS is to maintain the environment in the control area (which is comprised of the Control Room, Cable Room, and Electrical Equipment Rooms) within acceptable limits for the operation of unit controls as necessary for equipment and operating personnel. Correcting the UFSAR descriptions to more accurately reflect the as-built plant, current operating practices, or licensing information does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. No new components are being added. The activity does not create any conditions or events, which lead to accidents previously, evaluated in the SAR. There is no adverse effect on containment integrity and no new release paths are created. The activity will not result in any new credible failure modes. No new accidents different than already evaluated in the SAR are postulated. The activity does not affect any safety limits or limiting safety system settings. There is no effect on reactivity. There are no USQs or safety concerns. No Technical Specification changes are required. UFSAR Section 9.4.1.1 was revised accordingly.

UFSAR CHANGES (Pkg 99-176)

DESCRIPTION

SYSTEM: Containment Isolation

This safety evaluation revised UFSAR Sections 6.2.3.1 and 7.5.2.20, per PIP 98-3893, to clarify that the requirements for control room indication and switches are applicable only for reactor building isolation valves that are active to close for containment isolation. This change is consistent with the requirements described within Technical Specification 3.3.8 and Regulatory Guide 1.97.

SAFETY EVALUATION SUMMARY

The revision of this information in the UFSAR is to reflect the accurate as-built plant SSC descriptions. The Post accident monitoring instrumentation requirements associated with TS 3.3.8 and RG 1.97 apply only to valve position indication for active containment isolation valves. Manual containment isolation valves (i.e. locally operated or remotely operated valves which are not automatically actuated) are administratively maintained in the closed position. Passive failures of containment isolation equipment or spurious opening of containment isolation valves is not postulated during design basis accidents requiring containment isolation. There is, therefore, no need for operator action in positioning these valves and consequently no need for control room indication or control room switches for such valves. The revision does not result in any plant modifications, procedure changes, or other activities that could involve an unreviewed safety question. This change does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no affect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No Technical Specification changes are required. There are no unreviewed safety questions or safety concerns. No Selected Licensee Commitment changes were required. UFSAR Sections 6.2.3.1 and 7.5.2.20 were revised accordingly.

UFSAR CHANGES (Pkg 99-178)

DESCRIPTION

SYSTEM: Meteorological

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised the Chapter 2 UFSAR Tables to correctly present the results of the gas tracer tests described in Section 2.3.4. These corrections ensure consistency in the information presented.

SAFETY EVALUATION SUMMARY

The ability to monitor the meteorological conditions at the Oconee Site is not affected by this activity. The change does not affect any assumed dispersion factors (X/Q) used in estimating dose consequences during accident and normal conditions. Correcting or clarifying the UFSAR to more accurately reflect the most up to date as-built plant, operating practices, or licensing information does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Tables 2-46, 2-48, 2-49, 2-52, 2-53, 2-56, 2-57, 2-60, 2-61, 2-64, 2-65, 2-67, 2-68, 2-69, 2-72, 2-73, 2-76, 2-77, 2-80, 2-81, 2-83, 2-85, 2-86, 2-89, 2-90, and 2-92 were revised accordingly.

UFSAR CHANGES (Pkg 99-188)

DESCRIPTION

SYSTEM: Condensate

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity corrects UFSAR 10.4.1.4 to reflect that conductivity, not pH, is monitored in the condensate leaving the hotwell. This change makes the UFSAR consistent with the plant elementary flow diagrams.

SAFETY EVALUATION SUMMARY

This UFSAR correction has no adverse impact on the analysis, design, function, operation, or performance of any SSC as previously evaluated in the SAR. Enhancing the UFSAR content to more accurately reflect the as-built plant does not adversely affect the integrity, operation or function of any systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 10.4.1.4 was updated accordingly.

UFSAR CHANGES (Pkg 99-189)

DESCRIPTION

SYSTEM: Turbine Generator, RPS

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity enhances Section 10.3.3 to clearly indicate that an anticipatory reactor trip following a main turbine trip occurs only when reactor power is above the anticipatory reactor trip system setpoint.

SAFETY EVALUATION SUMMARY

Correcting UFSAR descriptions to more accurately reference the appropriate as-built plant, design, and licensing information does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. There is no affect on reactivity. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 10.3.3 was revised accordingly.

UFSAR CHANGES (Pkg 99-191)

DESCRIPTION

SYSTEM: Emergency 250 Volt DC Lighting System

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 9.5.1.4.5 provides a description of the Emergency 250 Volt DC Lighting System. The list of loads for the Emergency 250 VDC Lighting System was supplemented to include the Administrative and Service Building loads.

SAFETY EVALUATION SUMMARY

This UFSAR revision does not change any Emergency 250 VDC Lighting System component design information discussed in the SAR nor will it change any information such that safety related components could be prevented from performing their safety functions. Adding information to more accurately reflect the as-built plant does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Section 9.5.1.4.5 was revised accordingly.

UFSAR CHANGES (Pkg 99-190)

DESCRIPTION

SYSTEM: Control Room Area Cooling (CRAC)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 9.5.1.4.4 is a discussion of the ventilation system for the control rooms, cable rooms, and equipment rooms. A fan is available to purge smoke to the Auxiliary Building where it is exhausted to Auxiliary Building HVAC system. The description of the fan volume flow was enhanced to explain that flow through the fan is dependent on the static pressure experienced by the fan. Vendor document OM-0235A-76 indicates that the flow through the fan is 3040 CFM at a static pressure of 0.25 inches of water.

SAFETY EVALUATION SUMMARY

The purpose of the CRACS is to maintain the environment in the control area (which is comprised of the Control Room, Cable Room, and Electrical Equipment Rooms) within acceptable limits for the operation of unit controls as necessary for equipment and operating personnel. Enhancing the UFSAR descriptions to more accurately reflect the as-built plant, current operating practices, or licensing information does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. No new components are being added. The activity does not create any conditions or events, which lead to accidents previously, evaluated in the SAR. There is no adverse effect on containment integrity and no new release paths are created. The activity will not result in any new credible failure modes. No new accidents different than already evaluated in the SAR are postulated. The activity does not affect any safety limits or limiting safety system settings. There is no effect on reactivity. There are no USQs or safety concerns. No Technical Specification changes are required. UFSAR Section 9.5.1.4.4 was revised accordingly.

UFSAR CHANGES (Pkg 99-193)

DESCRIPTION

SYSTEM: Standby Shutdown Facility (SSF)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 9.6.3.4.2 contains a description of the SSF diesel generator. The description includes a list of the diesel generator protective trips that are not bypassed when the diesel is operating in the emergency mode. The Oconee Probabilistic Risk Assessment (PRA), OS-203, lists “generator overcurrent” as a fourth protective trip. Elementary diagrams OEE-117-95-0B & 0C show overcurrent relays for each generator phase that will trip the diesel and its output breaker on a “two of three” coincidence logic by energizing the same lockout relay (PL(86D)) as the generator differential protective trip. This activity revised the UFSAR Section to include the generator overcurrent trip for consistency with design documentation.

SAFETY EVALUATION SUMMARY

This activity does not in any way change the physical characteristics of the plant or SSF. This change is made for consistency with existing design documentation and the PRA. Since the SSF is independent of other station systems, and the SSF diesel generator is not activated until after an event requiring its use has occurred, there can be no effect on SSCs outside the SSF. There is no effect on operations. Plant SSCs as evaluated in the SAR, are not adversely affected by this activity, which simply revises the UFSAR descriptions to match the as-built plant. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR Section 9.6.3.4.2 was revised accordingly.

UFSAR CHANGES (Pkg 99-194)

DESCRIPTION

SYSTEM: Reactor Coolant (RCS)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised the Section 7.5.2.37 to reflect that the quench tank rupture disc is designed to relieve at 55 psig. This pressure is consistent with the plant drawings and calculation OSC-3617.

SAFETY EVALUATION SUMMARY

This change does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There are no physical changes to the plant or procedures. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question (USQ) and no Technical Specification changes are required. UFSAR Section 7.5.2.37 was revised accordingly.

UFSAR CHANGES (Pkg 99-195)

DESCRIPTION

SYSTEM: Condensate, LPSW

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity clarifies that the level transmitters for the upper surge tank (UST) and the flow instruments for LPSW are seismically qualified and powered by a safety grade source, but do not have to be environmentally qualified since they are located in a mild environment.

SAFETY EVALUATION SUMMARY

This UFSAR clarification has no adverse impact on the analysis, design, function, operation, or performance of any SSC as previously evaluated in the SAR. Enhancing the UFSAR content to more accurately reflect the as-built plant does not adversely affect the integrity, operation or function of any systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Sections 7.5.2.11 and 7.5.2.58 were updated accordingly.

UFSAR CHANGES (Pkg 99-196)

DESCRIPTION

SYSTEM: Radiation Indication Alarms (RIAs)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. A correction was made to Section 7.5.2.23 to reflect the actual indication range of reactor building "High Range Containment Monitor" is 1 to 10E+08 R/hr. This change is consistent with Table 11-7 and other applicable plant documentation.

SAFETY EVALUATION SUMMARY

This change does not affect the design, function, or operation of the plant SSCs. The plant RIAs as evaluated in the SAR are not adversely affected by this activity which simply provides for enhanced accuracy. It does not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 7.5.2.23 was revised accordingly.

UFSAR CHANGES (Pkg 99-197)

DESCRIPTION

SYSTEM: Standby Shutdown Facility (SSF).

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section Table 9-14 was revised to reflect the following: (1) the SSF service water strainer design flowrate is 600gpm and the design temperature is 110 F, and (2) the correct name for the waste oil sump pump is "unloading oil spill sump pump". These changes are consistent with the flow diagrams, calculations and other applicable plant documentation.

SAFETY EVALUATION SUMMARY

Adding, correcting or clarifying UFSAR information to more accurately reference the most up to date as-built plant, operating practices, or licensing information does not in any way adversely affect the design, integrity, operation or function of an SSF systems, structures and components. This UFSAR revision does not involve any physical changes to the facility, nor does it alter its design bases. These revisions do not change procedures or methods of operation. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR Table 9-14 was revised accordingly.

UFSAR CHANGES (Pkg 99-198)

DESCRIPTION

SYSTEM: Jocassee Dam

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised Section 2.4.1.2 to correctly indicate a full pond elevation of 1110 ft msl for Lake Jocassee. This change ensures consistency with the assumed full pond elevation used in design flooding studies described in UFSAR Section 2.4.2.2 and similar information presented in drawing K-0001.

SAFETY EVALUATION SUMMARY

Correcting the UFSAR dam and water sources information to more accurately reflect the as-built plant and surroundings does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. The activity does not reduce the ability of the site to cope with design external floods as concluded in the flooding studies presented in UFSAR Section 2.4.2.2. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This change is largely editorial in nature. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 2.4.1.2 was revised accordingly.

UFSAR CHANGES (Pkg 99-199)

DESCRIPTION

SYSTEM: None

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. UFSAR Section 13.2.5 describes record retention according to the requirements established by Duke Power Company Employee Training Qualification System Manual (ETQS) STD 1001.0, "Training Records Retention." The information formerly contained therein has been deleted and superseded with ETQS STD 204.0, "Documentation of Training and Qualification of Personnel Who Perform Work at Nuclear Stations Operated by Duke Power" as noted in ETQS STD 1001.0.

SAFETY EVALUATION SUMMARY

Clarifying the UFSAR training program information to more accurately reflect the most up to date programs and practices does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This change is largely editorial in nature. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 13.2.5 was revised accordingly.

UFSAR CHANGES (Pkg 99-201)

DESCRIPTION

SYSTEM: Penetration Room Ventilation (PRVS)

This safety evaluation revised UFSAR Sections 6.5.1.3, 9.4.7.2, and 9.4.8. UFSAR section 6.5.1.3 previously stated, "following an accident, filter instrumentation is monitored by an operator every four hours". And, Section 9.4.7.2 of the UFSAR stated, "In the event of a fan failure, the normally closed tie valve (PR-20) can be opened from its remote manual station to maintain adequate cooling air through the idle filter train". The requirement to open PR-20 following a fan failure is not necessary, and is not credited in the current EOP. Adequate documentation exists to show that airflow is not required across an idle filter train to prevent ignition of the carbon bed in a PRVS filter train.

SAFETY EVALUATION SUMMARY

There is no technical or safety concern with respect to removal of the requirements to monitor PRVS filter instrumentation every four hours and operate PR-20 after a PRVS fan failure. Calculation OSC-4024 shows that PR-20 does not need to be opened in the event of a fan failure of one train of PRVS. The calculation documents that charcoal ignition cannot occur in the charcoal bed, even at peak iodine levels, due to the heat transfer to the Penetration Room. This revision reflects the accurate as-built plant and performance characteristics of the PRVS and does not result in any plant modifications. This change does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no affect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No Technical Specification changes are required. There are no unreviewed safety questions or safety concerns. UFSAR Sections 6.5.1.3, 9.4.7.2, and 9.4.8 were revised accordingly.

UFSAR CHANGES (Pkg 99-203)

DESCRIPTION

SYSTEM: Control Rod Drive Mechanism (CRDM)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised UFSAR Section 4.5.3.1.1 to correct the description of control rod drive speed to match the existing CRDM design. The CRDM provides for two speeds, "Run", at 30 in./min., and "Jog", at 3 in./min. The dual speed design is described in vendor manuals: OM-0201-2248, OM 1201-0954, OM 2201-1085, OM 1201-1110, and OM 2201-0986. In addition, Table 4-21 was revised to add a description of the jog speed, similar to the existing entry for normal (run) speed.

SAFETY EVALUATION SUMMARY

There are no limits on manual control rod insertion speed. The "Jog" speed for withdrawal is bounded by the existing analyses for the "Run" speed. Correcting UFSAR descriptions to more accurately reference the appropriate as-built plant and design information does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. This change does not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. There is no affect on reactivity. This change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 4.5.3.1.1 was revised accordingly.

UFSAR CHANGES (Pkg 99-204)

DESCRIPTION

SYSTEM: Reactor Vessel (RV)

This safety evaluation was performed as part of the UFSAR Accuracy Review Project to document and correct discrepancies. This activity revised UFSAR Table 4-16 to correct the internals vent valve jack screw bushing material to ensure consistency with existing design basis documents.

SAFETY EVALUATION SUMMARY

This revision is to reflect the most accurate RV material data available. This change does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No SSCs are degraded. There is no affect on reactivity. There is no change to plant setpoints, safety limits or design parameters. This activity also has no effect on any margins of safety as previously evaluated in the SAR. The revision does not result in any plant modifications, procedure changes, or other activities that could involve an unreviewed safety question. There are no safety concerns. No Technical Specification changes are required. No Selected Licensee Commitment changes were required. UFSAR Table 4-16 was revised accordingly.

UFSAR CHANGES (Pkg 99-212)

DESCRIPTION

SYSTEM: Essential Siphon Vacuum (ESV)

This safety evaluation was performed to fully reflect and describe in the UFSAR the installation of NSM ON-12932 on Unit 1. This modification implemented Siphon Seal water and ESV systems.

SAFETY EVALUATION SUMMARY

The operation of the ESV and SSW systems is not affected. The new description for the as-built, as designed plant does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs, including vacuum priming, are degraded. There is no affect on reactivity. No plant safety limits or setpoints are adversely impacted. This activity also has no effect on any margins of safety as previously evaluated in the SAR. This modification involves no USQ's or safety concerns. No Technical Specification changes are required. UFSAR Section 9.2.2.1 and Figure 9-10 were revised accordingly.

UFSAR CHANGES (Pkg 99-217)

DESCRIPTION

SYSTEM: Main Feedwater

This safety evaluation revised UFSAR Figure 9-16, per PIP 00-1720, to reflect the current as-built plant configuration. The secondary side hydrazine tank was abandoned and subsequently removed.

SAFETY EVALUATION SUMMARY

Correcting the UFSAR figure does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No important to safety SSCs are degraded. There is no effect on reactivity. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. UFSAR Figure 9-16 was revised accordingly.

UFSAR CHANGES (Pkg 99-219)

DESCRIPTION

SYSTEM: None

This safety evaluation was performed to update the UFSAR to clearly document the plant licensing basis with respect to opening normally closed seismic boundary valves. The expectation is that normally closed seismic boundary valves be kept in the closed position much more than in the open position and that any manipulations are evaluated accordingly.

SAFETY EVALUATION SUMMARY

As part of the routine operation of a nuclear facility, certain normally closed valves must be operated at times to support testing, sampling, backwashing and other activities. There is no adverse effect as long as these manipulations are evaluated and performed per approved procedures. Clarifying the UFSAR information to more accurately reflect the as-built plant, current operating practices, and licensing documentation does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways, failure modes, or accident scenarios are created. There are no reactivity management concerns. There is no effect on plant safety limits, setpoints, or design parameters. There is no reduction in any safety margins associated with the fission product barriers. As such, this change does not involve an unreviewed safety question and no Technical Specification changes are required. UFSAR Section 3.7.3.9 was revised accordingly.

UFSAR CHANGES (Miscellaneous)

DESCRIPTION

SYSTEM: Multiple

UFSAR changes not performed under the 10CFR 50.59 Regulation but that resulted from Licensing Amendments, Technical Specification Changes, or other NRC approved changes are included for information and briefly described in Attachment 2.

SAFETY EVALUATION SUMMARY

N/A

VIII. CALCULATIONS

DESCRIPTION

SYSTEM: Nuclear Fuel

Calculation OSC-6229 contains a 10CFR50.59 USQ Evaluation for using the PIE equipment to remove and reinstall the Mk-B quick-disconnect upper end fitting. In addition, the tooling will be used to generate force/deflection data on the upper end fitting holddown springs. The PIE equipment utilized for the testing of the Quick Disconnect Upper End Fitting has been reviewed.

SAFETY EVALUATION SUMMARY

Utilizing the PIE equipment to remove and reinstall the Mk-B quick-disconnect upper end fitting does not in any way initiate, affect the mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. This activity does not modify the physical plant. There are no effects on reactivity. The integrity of the fuel is not challenged. This evaluation determined that there were no unreviewed safety questions associated with using the GRS on the Mk-B and Mk-B11 fuel used at Oconee. No Technical Specification or UFSAR changes are necessary.

CALCULATION

DESCRIPTION

SYSTEM: Nuclear Fuel

Calculation OSC-6233, Rev 4 documents a 10CFR50.59 USQ Evaluation to correct the fuel pitch for Mark B10 fuel. This activity was performed per PIP 98-5941.

SAFETY EVALUATION SUMMARY

This change is editorial in nature. This activity does not in any way initiate, affect mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. There are no effects on reactivity. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. No UFSAR or Technical Specification changes are required.

CALCULATION

DESCRIPTION

SYSTEM: Reactor Coolant (RCS)

Calculation OSC-6583 Rev 1 contains a 10CFR50.59 Evaluation for an update to the Oconee UFSAR. The evaluation was performed to UFSAR Chapter 4 (most particularly section 4.3 – Nuclear Design -- and the associated figures and tables) in support of the new UFSAR Chapter 15 methods. UFSAR Chapter 4 and section 7.6.1 wording were revised in response to the new UFSAR Chapter 15 methods. Certain wording was changed to replace specific (and old) Chapter 15 values with generic references to Chapter 15 accidents, and to ensure consistency with the new Chapter 15 methods.

SAFETY EVALUATION SUMMARY

This calculation supports the implementation of new accident analyses methods for Oconee Nuclear Station. No new methods were introduced, and no current methodology was revised by the simple UFSAR Section 4 and 7.6.1 changes. Providing more accurate up-to-date UFSAR accident analyses does not in any way initiate, affect the mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. This activity does not modify the physical plant. There are no effects on reactivity. There are no safety concerns or unreviewed safety questions associated with this update. See UFSAR Change Package 99-100 for affected sections.

CALCULATION

DESCRIPTION

SYSTEM: Nuclear Fuel

This calculation (OSC-7169) was developed to supplement the justification for continued use of damaged grid fuel assemblies and to serve as a generic safety evaluation and unreviewed safety question determination. Section five of this calculation discusses the procedure for using this safety review and 50.59 analysis as a generic baseline to justify future instances of damaged grids. Section nine discusses the engineering judgments associated with this analysis. Section ten addresses the previous damage experience envelope and damage categorization. Revision 2 was performed to document the damaged grids observed in the O1EOC18 outage. Those damaged grids were found to be within the experience base previously evaluated.

SAFETY EVALUATION SUMMARY

This calculation documents the justification for continued use of fuel assemblies with damaged grids when it is shown that the fuel assembly in question is bounded by the experience envelope discussed in section ten of calculation OSC-7169. Each instance where this analysis is utilized is documented in a new attachment to this calculation. This analysis has defined the envelope of grid damage that DPC has experienced and has determined that all assemblies that are bounded by the envelope, and consequently this generic analysis, shall pose no unreviewed safety questions because this calculation. The basis for defining the envelope is historical DPC operating experience with damaged grids and analytical data. The damaged grid corners as evaluated do not in any way initiate, affect mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. There are no effects on reactivity. There are no USQs, and no changes to the UFSAR or Technical Specifications are required.

CALCULATION

DESCRIPTION

SYSTEM: Incore Detectors

This safety evaluation supports OSC-7405 for the Nuclear Application Software (NAS) upgrade and the O1C19 Database Update. The NAS was upgraded to reflect the “long emitter” incore detectors.

SAFETY EVALUATION SUMMARY

The NAS exists on the Operator Aid Computer (OAC), which is a non-safety non-QA device. It does not have any controlling function or perform any safety-related function. Upgrading the NAS and making it consistent with the Framatome Technologies version does not in any way initiate, affect the mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. This activity does not physically modify any plant SSCs or operating procedures. There are no adverse effects on reactivity. There are no safety concerns or unreviewed safety questions associated with this update. No Technical Specification changes are necessary. No changes to the UFSAR are required.

CALCULATION

DESCRIPTION

SYSTEM: Nuclear Fuel

Calculation OSC-7426 documents the 10CFR50.59 USQ Evaluation for the design changes, new tubular spacer inserted between the spacer spring and the poison pellets and end caps that are now drilled out, on the Mk-B burnable poison rod assemblies (BPRAs). This evaluation also includes a review of the subsequent UFSAR text change that is required as a result of implementing these design changes to include a description of the spacer.

SAFETY EVALUATION SUMMARY

This evaluation has shown that there are no unreviewed safety questions associated with the design changes to accommodate the new tubular spacer and the drilled out end caps for the Mk-B BPRAs rods or the update to the UFSAR to include a description of the tubular spacer. This activity does not in any way initiate, affect mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. There are no effects on reactivity. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. No Technical Specification changes are required. UFSAR Section 4.5.2.4 was revised accordingly (Pkg 99-77).

CALCULATION

DESCRIPTION

SYSTEM: Nuclear Fuel

Calculation OSC-7464 documents the 10CFR50.59 USQ Evaluation for reducing the Oconee 2 Cycle 17 (O2C17) Core Operation Limits Report (COLR) flow criteria from 109.5 % to 108.5 % design flow.

SAFETY EVALUATION SUMMARY

The COLR flow criteria is established to ensure that the DNB design basis is met during operation of the core. There is DNB margin available for O2C17 such that the required flow can be reduced from 109.5 to 108.5 % design flow with no reduction in safety. The evaluation showed that there are no unreviewed safety questions associated with reducing the O2C17 COLR flow criteria from 109.5 % to 108.5 % design flow. The reload analysis is a QA Condition 1 engineering calculation used to determine acceptable core physics conditions and parameters for a specific cycle. It also requires a safety evaluation be performed in accordance with Workplace procedure NE-104. Utilizing this methodology does not in any way initiate, affect the mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. There are no physical changes to the plant. This evaluation determined that there were no unreviewed safety questions associated with the O2C17 core change. No Technical Specification or UFSAR changes are necessary. The COLR (SAR document) was amended in accordance with Rev #2.

CALCULATION

DESCRIPTION

SYSTEM: Reactor Coolant (RCS)

Calculation OSC-7493 contains a 10CFR50.59 Evaluation for an update to the Oconee UFSAR. The changes consist of: (1) removal of the discussion of the CRAFT2 analysis for the three RCP operation case. The part power case with 3 RCP operating considered the idle pump in three different locations. The idle pump can be in the intact loop, the broken leg, or in the intact leg of the broken loop. RELAP5 is the analysis of record. The discussion of the CRAFT2 analysis is not needed to support the licensing basis, and (2) clarification of the discussion of the maximum break size that can be maintained by the charging system. FTI provided a replacement calculation for the original that showed for a makeup flow of 140 gpm and a letdown flow of 70 gpm the RCS inventory could be maintained for a break size of 0.0004 ft². The standard operating practice in responding to an RCS leak is to reduce or isolate letdown in an attempt to maintain RCS inventory. Clarification was added to the UFSAR to identify the conditions for which the charging system can maintain system inventory. Also updated references.

SAFETY EVALUATION SUMMARY

The FTI calculations used the licensed evaluation model (EM) critical flow model in determining the limiting break size. Therefore, this evaluation used approved LOCA methods. Providing more accurate up-to-date UFSAR accident analyses does not in any way initiate, affect the mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. This activity does not modify the physical plant. There are no effects on reactivity. There are no safety concerns or unreviewed safety questions associated with this update. UFSAR Section 15.14 was revised accordingly (Pkg 99-43).

CALCULATION

DESCRIPTION

SYSTEM: Nuclear Fuel

Calculation OSC-7532 documents the 10CFR50.59 USQ Evaluation to address the Core Mechanical and T/H issues associated with the implementation of the Mk-B10 cruciform spring set design (irradiated and unirradiated) at Oconee Nuclear Station beginning with Oconee 2, Cycle 18. In order to reduce the holddown spring forces on the Oconee 2 fuel and mitigate the potential of incomplete rod insertion (IRI), Duke Power has opted to induce a set into the holddown springs on all of the feed batch fuel assemblies and twenty of the Mk-B10 first burned fuel assemblies from O2C17. The first burn fuel assemblies that will be affected are those assemblies projected to likely be in control locations during their third cycle in the core (Unit 2, Cycle 19) and which will exceed a burnup of 45,000 Mwd/mtU .

SAFETY EVALUATION SUMMARY

This calculation performs a functionality evaluation and a 10CFR50.59 Evaluation of the setting of holddown springs on the Framatome Cogema Fuels (FCF) 15x15 Mk-B10 fuel assembly design operating in Oconee Nuclear Station units beginning with Unit 2 Cycle 18. This evaluation follows the guidelines contained in NSD 209, XSTP-104, NE Workplace Procedure 104, and is documented following the EDM 101-calculation format. This analysis shows that the Mk-B10 fuel assemblies with set cruciform springs can be successfully implemented under the provisions of 10CFR50.59 for the Oconee Nuclear Station. This activity does not in any way initiate, affect mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. There are no effects on reactivity. There are no USQs, and no changes to the UFSAR or Technical Specifications are required.

CALCULATION

DESCRIPTION

SYSTEM: Nuclear Fuel

Calculation OSC-7533 contains a 10CFR50.59 Evaluation for using the first reload of Mark-B11 fuel in Oconee 1 Cycle 20. The Mark-B11 design offers improvements in departure from nucleate boiling (DNB) margins and fuel cycle economy while retaining many proven features of the earlier fuel assembly designs. These features include: keyable spacer grids, floating grid restraint system, flow-optimized control rod guide tube assembly, quick disconnect upper end fitting, anti-straddle lower end fitting, Zircaloy intermediate grids, cruciform holddown spring, and debris resistant fuel rods (extended lower end plug on fuel rods). The primary design changes, which enhance nuclear, thermal-hydraulic and mechanical performance, include the following:

- 1.Reduced diameter fuel rod,
- 2.Flow mixing vanes on five of the six intermediate spacer grids,
- 3.Improved grid restraint system, and
- 4.M5 fuel rod cladding

The reduced fuel pin diameter increases uranium utilization, which improves fuel cycle economy. Mixing vane grids increase DNB margin by improving the flow mixing. Grid restraint improvements provide additional structural strength to accommodate the increased hydraulic loads from the flow mixing grids. The M5 fuel rod cladding provides additional corrosion margin.

SAFETY EVALUATION SUMMARY

OSC-7533 covers issues related to the fuel assembly structure, mechanical analysis, and thermal analysis. The mechanical analyses are clad stress, fatigue, strain, corrosion, and creep collapse. The thermal analyses are rod internal pressure, fuel melt, and the ECCS interface criteria. The fuel assembly structural analysis includes fuel assembly interfaces with control components, LOCA/Seismic response, and fuel dimensions listed in the UFSAR. This activity does not in any way initiate, affect the mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. This activity does not modify the physical plant. This analysis determined that there were no unreviewed safety questions related to the fuel assembly structure, mechanical analysis, or thermal analysis of the Mk-B11 fuel assembly design Note that a Technical Specification change was initiated to add M5 cladding material and to update topical report references. UFSAR changes were made to Sections 4.2.1, 2, 5, 15.14.5, Table 4-23, and Figs 4-2, 3, 4, 36, 37 to update the fuel assembly descriptions and reload analysis methodology (Also see Pkgs 99-100, 181, 183).

CALCULATION

DESCRIPTION

SYSTEM: Nuclear Fuel

Calculation OSC-7534 contains a 10CFR50.59 analysis and safety review for the update of UFSAR Table 4-1 & 4-2 to incorporate Mk-B10 and Mk-B11 fuel assembly design parameters and dimensions that are not justified in an NRC approved topical or NEI 98-03. These changes include the update of heat transfer and fluid flow parameters in Table 4-1 and Mk-B10 and Mk-B11 fuel rod and Mk-B10 to Mk-B10L and Mk-B11 assembly component dimensions to Table 4-2. The dimensions updated are consistent with those used in the generic mechanical and thermal-hydraulic analyses performed per NRC approved methods (i.e., DPC-NE-2003P-A, DPC-NE-2005P-A, Rev. 2 and DPC-NE-2008P-A). The changes to "Heat Transfer & Fluid Flow" parameters in ONS UFSAR Table 4-1 were made to reflect typical values for the specified RCS flow rates and bypass flow rates at nominal conditions.

SAFETY EVALUATION SUMMARY

These changes do not adversely affect the mechanical and thermal performance of the fuel or its reliability. These changes do not adversely impact the reactivity, Doppler coefficients, moderator temperature coefficients evaluated by Nuclear Design in their reload analyses. Furthermore, these parameters are controlled by the individual mechanical and thermal-hydraulic analyses. The license basis values are listed in the COLR. The power density changes reflect the values appropriate for the Mk-B10F/G/L and Mk-B11 fuel assembly design. The values in Table 4-1 are consistent with those calculated by SIMULATE-3; a NRC approved computer code. The updates to the hot channel factors in Table 4-1 of the ONS UFSAR are consistent with those used in Non-SCD and SCD analyses. The F_q nuc and mech hot channel factor is not used directly in any thermal-hydraulic or accident analyses. This update does not increase the likelihood of DNB. This activity does not in any way initiate, affect the mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. There are no physical changes to the plant. This evaluation determined that there were no unreviewed safety questions. No Technical Specification changes are necessary. UFSAR Section 4.4, Tables 4-1, 2, 14 were revised accordingly (Pkg 99-215).

CALCULATION

DESCRIPTION

SYSTEM: Reactor Coolant (RCS)

Calculation OSC-7541 contains a 10CFR50.59 Evaluation for an update to the Oconee UFSAR accident analyses. With the review and approval of DPC-NE-3005 by the NRC, Duke replaced many of the analyses currently in Chapter 15 of the UFSAR. Additionally, a new transient was added that was not previously in the UFSAR (15.17, Small Steam Line Break). This calculation file justifies the inclusion of those analyses into the UFSAR per the NSD-220 directive.

SAFETY EVALUATION SUMMARY

This calculation supports the implementation of new accident analyses methods for Oconee Nuclear Station. It replaced many of the current Chapter 15 analyses based on original B&W methods with analyses based on recent Duke specific NRC approved methods. In some instances, components of the old analyses were deleted altogether since they are no longer relevant to the new methods. In some instances, entirely new transients are added to comply with expectations associated with newer SARs. Tech Spec change 99-06, associated with the new analyses, was reviewed and approved by the NRC. No other Tech Spec changes are required to implement the new analyses. Providing more accurate up-to-date UFSAR accident analyses does not in any way initiate, affect the mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. This activity does not modify the physical plant. There are no effects on reactivity. There are no safety concerns or unreviewed safety questions associated with this update. See UFSAR Change Package 99-100 for affected sections.

CALCULATION

DESCRIPTION

SYSTEM: Gaseous Waste Disposal (GWD)

This safety evaluation was performed per OSC-7566 to support updating the UFSAR waste gas tank rupture accident. The rupture of a waste gas tank results in the release of the radioactive contents of the tank to the plant auxiliary building ventilation system and to the atmosphere through the unit vent. The release is assumed to occur over a two hour period to maximize the exclusion area boundary dose. Dose to a receptor at the site boundary and the control room dose was evaluated.

SAFETY EVALUATION SUMMARY

A tank is assumed to contain the maximum inventory expected based on a technical specification limit which requires that offsite dose from a tank rupture be limited to 500 millirem. The tank inventory assumed in this analysis is far greater than the expected operational inventory and is not based on actual operation of the system. The shared unit 1 & 2 tank is considered as the limiting case. This revision has no impact on GWD system design, function, or operation as previously evaluated in the SAR. This activity will not prevent any SSC from performing its required functions. This change does not affect the design, function or operation of plant SSCs. They do not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the consequences of any SAR described accident. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Table 15-16 was revised accordingly (Pkg 99-207).

CALCULATION

DESCRIPTION

SYSTEM: Nuclear Fuel

Calculation OSC-7567 contains a 10CFR50.59 Evaluation to support the O3C19 Core Reload Analysis. The reload analysis addresses all core physics parameters (required boron concentrations, reactivity, etc.) and changes associated with fuel design for a specific cycle.

SAFETY EVALUATION SUMMARY

The safety analysis physics parameters method is described in topical report DPC-NE-1002-PA. The reload analysis is a QA Condition 1 engineering calculation used to determine acceptable core physics conditions and parameters for a specific cycle. It also requires a safety evaluation be performed in accordance with Workplace procedure NE-104. Utilizing this methodology does not in any way initiate, affect the mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. There are no physical changes to the plant. This evaluation determined that there were no unreviewed safety questions associated with the O3C19 core reload. No Technical Specification or UFSAR changes are necessary.

CALCULATION

DESCRIPTION

SYSTEM: Reactor Coolant (RCS), Nuclear Fuel

This safety evaluation was performed per OSC-7570 to support updating UFSAR Table 15-16 to include both the reactor building (RB) and secondary side releases for the rod ejection accident.

SAFETY EVALUATION SUMMARY

The addition of the RB release contribution does not affect the UFSAR description of the rod ejection accident in Section 15.12. The radiological consequences of the accident are still well below the 10 CFR 100 limits. This change does not affect the design, function or operation of plant SSCs. It does not adversely affect the design, integrity, operation or function of systems, structures and components. These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. No new radiological release pathways or failure modes are created. There is no increase in the probability of a malfunction of equipment important to safety. There are no effects on reactivity. There is no physical change to the plant or procedures. There is no change to plant setpoints, safety limits or design parameters. This activity has no effect on any margins of safety as previously evaluated in the SAR. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Table 15-16 was revised accordingly (Pkg 99-206).

CALCULATION

DESCRIPTION

SYSTEM: Spent Fuel Pool (SFP), Nuclear Fuel

Calculation OSC-7577 documents the 10CFR50.59 Evaluation for temporarily restricting the fresh fuel enrichment to 4.10 w/o U-235 or less due to the application of an axial burnup bias in the spent fuel pool criticality calculations. This evaluation is limited to the impacts on the criticality analyses outside the reactor building. The core reactivity is routinely analyzed and evaluated in the normal reload safety analysis performed for each cycle.

SAFETY EVALUATION SUMMARY

This calculation provides a conservative analysis for the SFPs to support a compensatory action needed to verify and maintain operability. It does not in any way initiate, affect the mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. There are no adverse effects on reactivity. There are no physical changes to the plant. This evaluation has shown that there are no unreviewed safety questions associated with the temporary restriction of fresh fuel enrichment to 4.10 w/o or less due to the application of an axial burnup bias in the spent fuel criticality calculations. There are no Tech Spec changes required. UFSAR Section 9.1.1 was revised accordingly (Pkg 99-177).

XI. TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: None

This safety evaluation supports an ITS Bases revision to remove the requirement that a non-automatic power operated valve be deactivated in order to be considered operable.

SAFETY EVALUATION SUMMARY

This change is consistent with NUREG 1430, Rev. 1, which defines a manual valve as operable when closed. Reference to manual valves in The NUREG includes both valves that are not power operated and valves that are power operated but not automatic. Surveillance Requirements to demonstrate operability of these valves only require that they be verified closed both in the NUREG and in the ONS ITS. The changes do not in any way initiate, affect the mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. This activity does not physically modify any plant SSCs. There are no adverse effects on reactivity. There is no change to plant setpoints, safety limits or design parameters. There are no safety concerns or unreviewed safety questions. No Technical Specification changes are necessary. TS bases 3.6 was revised accordingly.

TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: High Pressure Injection (HPI)

This safety evaluation supports a revision to ITS Bases 3.3.8 to clarify the appropriate action to be taken when an HPI System flow instrument is inoperable. TS 3.3.8 ACTION F requires that when one or more Functions with a required channel is inoperable the affected train be declared inoperable. Declaring the affected train inoperable applies generally to each affected system. For HPI, an inoperable HPI System Flow instrument channel only affects the associated HPI train's automatic OPERABILITY. For HPI, when < 60% RTP, there is not a specific condition for an inoperable HPI train. The appropriate condition in this case is the first condition of Condition D that addresses the condition where one HPI train is incapable of being automatically actuated but capable of being manually actuated. The train continues to be manually OPERABLE via the HPI discharge crossover valve and its associated flow instrument.

SAFETY EVALUATION SUMMARY

Clarifying the TS bases information to more accurately reference the most up to date operating practices and licensing information does not in any way adversely affect the design, integrity, operation or function of any systems, structures and components. This change do not in any way initiate, affect the mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. This activity does not physically modify any plant SSCs or change procedures. There are no adverse effects on reactivity. There is no change to plant setpoints, safety limits or design parameters. There are no safety concerns or unreviewed safety questions. No Technical Specification changes are necessary. TS bases 3.3.8 was revised accordingly.

TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: multiple

This safety evaluation was performed to support an enhancement to ITS Bases 3.1.3, 3.3.1, 3.3.5, 3.3.15, 3.5.4, 3.7.2, and 3.9.2 to reduce the potential for misinterpretation and make the statements consistent with the UFSAR and other parts of the Bases. The changes are largely editorial clarifications to improve the Bases description. This package was developed in response to Corrective Action # 5 of PIP 99-1248.

SAFETY EVALUATION SUMMARY

This change clarifies and makes the ITS bases more consistent with the UFSAR. It does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity does not physically modify any plant SSCs or change procedures. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. The subject TS bases are part of the SAR and were revised accordingly.

TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: multiple

This safety evaluation was performed to support an enhancement to ITS Bases 3.5.2, 3.6.1, 3.6.2, 3.6.3, 3.7.1, 3.7.2, 3.7.10, 3.7.11, 3.7.12, 3.7.16, 3.8.1, 3.8.5, and 3.8.8 to reduce the potential for misinterpretation and make the statements consistent with the UFSAR and other parts of the SLC/Bases. The changes are largely editorial clarifications to improve the Bases description.

SAFETY EVALUATION SUMMARY

This change clarifies and makes the ITS bases more consistent with the UFSAR. It does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. There is no increase in the consequences of any SAR described accident. There is no adverse affect on any SSC, and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. No SSCs are degraded. There is no effect on reactivity. This activity does not physically modify any plant SSCs or change procedures. This activity also has no effect on any margins of safety as previously evaluated in the SAR. No USQs are involved and no Technical Specification changes are required. The subject TS bases are part of the SAR and were revised accordingly.

TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: Low Pressure Injection (LPI)

This safety evaluation supports a revision to the Bases of the Technical Specifications 3.4.7, 3.4.8, 3.9.4, and 3.9.5. The change consistently defines what constitutes an OPERABLE DHR loop. An OPERABLE DHR loop is defined as consisting of a pump, a heat exchanger, valves, piping, instruments, and controls to ensure an OPERABLE flow path and to determine temperature. This change clarifies that the flow path starts in one of the RCS hot legs and is returned via one or both of the Core Flood tank injection nozzles. A statement was added to make it explicitly clear that the BWST recirculation crossover line through valves LP-40 and LP-41 may be part of the flow path if it provides adequate decay heat removal capability.

SAFETY EVALUATION SUMMARY

Use of this flow path allows both loops to discharge through one injection nozzle. This is considered acceptable since both loops take suction from the same point (off one of the RCS hot legs). These Bases changes are considered enhancements that serve to clarify the requirement without relaxing it. The changes do not in any way adversely affect the design, integrity, operation or function of any systems, structures and components. This change do not in any way initiate, affect the mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. This activity does not physically modify any plant SSCs or change procedures. There are no adverse effects on reactivity. There is no change to plant setpoints, safety limits or design parameters. There are no safety concerns or unreviewed safety questions. No Technical Specification changes are necessary. TS bases 3.4.7, 3.4.8, 3.9.4, and 3.9.5 were revised accordingly.

TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: Main Steam (MS), Feedwater

This safety evaluation supports a revision to the Bases of the Technical Specifications 3.3.11. The Main Steam Line Break (MSLB) Detection and Feedwater (FDW) Isolation circuitry is designed to address containment over-pressurization concerns by isolating feedwater to both steam generators during a MSLB event. There are two redundant trains of MSLB feedwater isolation circuitry. Each train is arranged in two-out-of-three logic for each main steam header. The outputs of the two-out-of-three logic are designed to trip the FDW pumps, to inhibit/stop the turbine driven emergency feedwater pump, and to isolate Main FDW and Startup FDW. When one of more MFW isolation functions with one channel is inoperable (TS 3.3.11 Condition A), action statement A.1 requires that the inoperable channel be placed in the trip condition within 4 hours. With one channel placed in the trip condition, the MSLB detection and FDW isolation circuitry is in a one-out-of-two logic configuration. Operating with one channel in the tripped condition still allows the MSLB detection and FDW isolation circuitry to perform its safety function in the presence of any single failure. This condition has been analyzed and accepted as part of the current licensing basis for indefinite operation as currently documented in the basis of TS 3.3.11. Operation in this configuration (one-out-of-two logic) carries with it a probability of a loss of FDW event and safety system actuation since indication (valid or via a malfunction) on only one channel is required to actuate the system. Putting instructions in the basis that the inoperable channel is to be returned to service promptly, which will return the system to a two-out-of-three logic configuration, may shorten the time the system operates with this increased probability.

SAFETY EVALUATION SUMMARY

Operating with one channel in the tripped condition has been analyzed and accepted as part of the existing Technical Specification basis. This change does not alter the existing basis other than informing plant operators that the inoperable channel should be returned to service promptly. This change will not increase the probability a loss of FDW event and safety system actuation. This change is not related to the malfunction of other equipment important to safety. This change has no effect on the consequences of a loss of FDW event and safety system actuation. This TS basis change does not increase the consequences of a malfunction of one of the remaining two MSLB Detection and FDW Isolation System channels. Returning an inoperable channel to service promptly will not create the possibility for an accident of a different type. No new radiological release pathways or failure modes are created. This activity does not physically modify any plant SSCs or change procedures. There are no adverse effects on reactivity. There is no change to plant setpoints, safety limits or design parameters. This activity does not change the existing basis other than informing plant operators that the inoperable channel should be returned to service promptly. The margin of safety is not reduced. Technical Specification 3.3.11 was revised accordingly.

TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: ECCS

This safety evaluation supports a revision to the Bases of the Technical Specifications SR 3.4.14.1 to allow continued testing of pressure isolation valves (PIV) in mode 3 without respect to the initial results observed. If a test result does not meet the acceptance criteria, contingency test measures such as increasing differential pressure are permitted to be performed prior to declaring a PIV inoperable.

SAFETY EVALUATION SUMMARY

This change allows greater potential for testing success without making unnecessary mode changes. This change does not in any way adversely affect the design, integrity, operation or function of any systems, structures and components. This change do not in any way initiate, affect the mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. This activity does not physically modify any plant SSCs. There are no adverse effects on reactivity. There is no change to plant setpoints, safety limits or design parameters. There are no safety concerns or unreviewed safety questions. No Technical Specification changes are necessary. TS basis 3.4.14.1 was revised accordingly.

TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: Low Pressure Injection (LPI)

This safety evaluation supports a revision to the Bases of the Technical Specifications ITS 3.5.4, BWST, Action A.1. The action explains restoring the BWST to OPERABLE status based on the temperature or boron concentration requirements not being met. An 8 hour limit is imposed on restoring the BWST to OPERABLE status, I.E. restoring the boron concentration to within the limits as specified in the COLR (Core Operating Limits Report). The requirement to restore the BWST to OPERABLE is based on adding a known volume of water at a known boron concentration to the BWST followed by sampling within 8 hours for verification. The 'expected' boron concentration can easily be calculated. The sample results are for verification. The additional verification after a 24 hour recirculation of the tank is to meet Chemistry procedure requirements and ensure adequate mixing of the tank contents.

SAFETY EVALUATION SUMMARY

The change merely clarifies the Bases for ITS 3.5.4, BWST, relative to boron concentration requirements. The timeframe to restore the BWST to OPERABLE status should 'Required Action A.1' be entered is less restrictive with ITS (I.E. 8 hours vs. 1 hour with current Tech Specs), so the clarification to how the verification is performed is editorial in nature. The changes do not in any way adversely affect the design, integrity, operation or function of any systems, structures and components. This change do not in any way initiate, affect the mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. This activity does not physically modify any plant SSCs or change procedures. There are no adverse effects on reactivity. There is no change to plant setpoints, safety limits or design parameters. There are no safety concerns or unreviewed safety questions. No Technical Specification changes are necessary. TS bases 3.5.4 was revised accordingly.

TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: Containment Isolation

This safety evaluation supports a revision to the Bases of the Technical Specifications 3.6.3 to remove the requirement that a non-automatic power operated valve be deactivated in order to be considered operable. This bases change redefines an operable containment isolation valve (CIV) as one that is closed.

SAFETY EVALUATION SUMMARY

This definition is consistent with NUREG 1430, Rev. 1 and the UFSAR. This change does not in any way adversely affect the design, integrity, operation or function of any systems, structures and components. This change do not in any way initiate, affect the mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. This activity does not physically modify any plant SSCs. There are no adverse effects on reactivity. There is no change to plant setpoints, safety limits or design parameters. There are no safety concerns or unreviewed safety questions. No Technical Specification changes are necessary. TS basis 3.6.3 was revised accordingly.

TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: Control Room Ventilation (CRVS)

This safety evaluation supports a revision to the Bases of the Technical Specifications 3.7.9 performed per PIP 99-1880. The following clarification statements were added to clearly define which technical specification action statements apply when various portions of the system are breached: "Breaches (excluding the removal of system performance test port caps removed per testing procedures) in the CRVS, most commonly due to the opening of access doors, introduces the possibility of allowing unfiltered or unanalyzed concentrations of inleakage into the Control Room. This applies to breaches in the ductwork on the upstream side of the Control Room Booster Fan filter trains and downstream of the Control Room Booster Fan filter trains (including the Booster Fan filter trains). Also included are the main Control Room air handling units, and all ductwork upstream and downstream of the main Control Room air handling units. Breaches are equivalent to two Booster Fan trains out of service."

SAFETY EVALUATION SUMMARY

This change does not in any way adversely affect the design, integrity, operation or function of any systems, structures and components. This change do not in any way initiate, affect the mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. This activity does not physically modify any plant SSCs or change procedures. There are no adverse effects on reactivity. There is no change to plant setpoints, safety limits or design parameters. There are no safety concerns or unreviewed safety questions. No Technical Specification changes are necessary. TS basis 3.7.9 was revised accordingly.

TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: Spent Fuel Pool (SFP)

This safety evaluation supports a revision to the Bases of the Technical Specifications 3.7.9 performed per PIP 99-1160. A discrepancy between the Improved Technical Specifications (ITS) and the Updated Final Safety Analysis Report (UFSAR) was corrected. ITS section 3.7.11 stated that the water level in the spent fuel pool is to be measured from the top of the irradiated fuel assemblies. However, UFSAR Section 15.11.1 references level to the top of the fuel storage racks. The UFSAR was determined to be correct and the TS bases were amended accordingly.

SAFETY EVALUATION SUMMARY

This Technical Specification bases change provides clarification to improve accuracy and clarify existing documentation. The top of the irradiated fuel assemblies is interpreted as the top of the fuel rod/pins, not the top of the upper end fitting. This change does not in any way adversely affect the design, integrity, operation or function of any systems, structures and components. This change do not in any way initiate, affect the mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. This activity does not physically modify any plant SSCs or change procedures. There are no adverse effects on reactivity. There is no change to plant setpoints, safety limits or design parameters. There are no safety concerns or unreviewed safety questions. No Technical Specification changes are necessary. TS basis 3.7.11 was revised accordingly.

TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: Control Room Area Cooling (CRAC)

This safety evaluation was performed to correct discrepancies in the CRACS descriptions in ITS Bases 3.7.16. The CRACS consists of the Control Room Ventilation (CRVS) and the Chilled Water (WC) Systems. The basis description was revised to accurately reference the cooling service water pumps and to delete the water cooled condensing units.

SAFETY EVALUATION SUMMARY

The purpose of the CRACS is to maintain the environment in the control area (which is comprised of the Control Room, Cable Room, and Electrical Equipment Rooms) within acceptable limits for the operation of unit controls as necessary for equipment and operating personnel. Correcting the bases descriptions to more accurately reflect the as-built plant, current operating practices, or licensing information does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. No new components are being added. The activity does not create any conditions or events, which lead to accidents previously, evaluated in the SAR. There is no adverse effect on containment integrity and no new release paths are created. The activity will not result in any new credible failure modes. No new accidents different than already evaluated in the SAR are postulated. The activity does not affect any safety limits or limiting safety system settings. There is no effect on reactivity. There are no USQs or safety concerns. No Technical Specification changes are required. ITS basis 3.7.16 was revised accordingly.

X. MISCELLANEOUS

DESCRIPTION

SYSTEM: High Pressure Injection (HPI)

This safety evaluation supports a Technical Specification interpretation. This interpretation requires the plant to enter TS 3.3.1a(2) when the HPI headers are cross-connected, the RCS is > 350°F, and fuel is in the core. This interpretation was an interim measure put in place until the ITS License amendment was approved.

SAFETY EVALUATION SUMMARY

This change ensures the subject specification is conservatively entered whenever the HPI headers are cross-connected. The changes do not in any way initiate, affect the mitigation of, or increase the consequences of any SAR described accidents. There is no adverse affect on any SSC and no increase in the probability of a malfunction of equipment important to safety. No new radiological release pathways or failure modes are created. This activity does not physically modify any plant SSCs. There are no adverse effects on reactivity. There is no change to plant setpoints, safety limits or design parameters. There are no safety concerns or unreviewed safety questions. No Technical Specification changes are necessary. No changes to the UFSAR were required.

ATTACHMENT 2

USFAR Revision Tracking System

Contributor	Section Number	Section Owner	Description of Change	Originating Source	Markup Status per NSD 220				Comments
					Date Initiated	Date Approved	Date Impl.	To Publishing	
Mo Salim	2.1.2, Figs A-3, A-6	Austin Burns	Indicate presence of the new Mosquito Control Facility within 1 mile radius of ISFSI	New Construction	8/16/99	8/16/99	Spring 1999	5/8/00	UFSAR Change #99-011
Ed Price	Figs A-3, A-6	Austin Burns	Indicate presence of OOB, MTF, Geo Tech Bldg, etc. within the plant/ISFSI 1 mile radius	Editorial PIP 99-3578	9/2/99	2/29/00	Pre 1999 discrepancy	3/27/00	UFSAR Change #99-021
Eddie Brown	7.1.1, 7.5	Perrero/Elliot	Delete redundant and duplicative information in 7.1.1 "Radiation Exposure" and instead reference that the same information is found in 12.1 of the Plant UFSAR. Update 7.5 to reflect current RP program	Editorial PIP 99-2505	9/2/99	10/21/99	Pre 1999 discrepancy	10/21/99	UFSAR Change #99-031
Steve Perrero	8.2.12.2	same	Correct HSM wind loadings	PIP 99-1992	10/19/99	10/19/99	Pre 1999 discrepancy	12/28/99	UFSAR Change #99-041
Steve Perrero	See 7.2.21.2 evaluation	same	Correct HSM wind loadings in ISFSI General License UFSAR	PIP 99-1992	10/19/99	10/19/99	Pre 1999 discrepancy	12/28/99	UFSAR Change #99-051G
John McLean	3.3.3.1, 4.0, 4.5.3, Table A-16	same/Perrero	Reflect that ISFSI civil structures are classified as QA-4	ONOE-12817	12/21/99	3/6/00	1999 mod	3/7/00	UFSAR Change #99-061
Note	Changes	Below	Are for the	ONS	UFSAR	ONLY	Above	Are	for ISFSI (Dry Cask Storage)
1997	Changes	Still Open Are	Shown Below						
M. McFarland	5.4.6.3.1, 5.4.9	Mike Leighton	Identify proper optimal ring settings (and reference) for Pzr valves	PIP 97-3723	10/8/97	4/20/99	Pre 1997 discrepancy	4/24/00	UFSAR Change #97-36
Mitch McFarland	9.3.1.2.1	Oakley/Cantrell	Clarify location of CA sample sinks (See Pkg 99-31)	Acc Review Proj PIP 98-1986	5/4/98	Resolved by Pkg 99-31	Pre 1997 discrepancy	XXXXXX	UFSAR Change #97-167
DES	Fig 9-15, 16	Russ Oakley	Correct Chem Addition System diagrams to current configuration	Acc Review Proj PIP 98-1986	3/6/98	5/8/00	Pre 1997 discrepancy	5/8/00	UFSAR Change #97-204
DES	Fig 9-5	Russ Oakley	Correct SF Cooling System diagram to current configuration	Acc Review Proj PIP 98-1986	3/6/98	5/2/00	Pre 1997 discrepancy	5/8/00	UFSAR Change #97-207
1998	Changes	Still Open Are	Shown Below						

USFAR Revision Tracking System

					Markup Status per NSD 220				
Contributor	Section Number	Section Owner	Description of Change	Originating Source	Date Initiated	Date Approved	Date Impl.	To Publishing	Comments
Bob Gamberg	9.5.1.6.1	Harold Lefkowitz	Remove extraneous info about RCP press boundary from fire protection section (VOID)	PIP 98-2055	7/16/98	Rejected by sect owner because info not covered else where	XXXXXX	XXXXXX	UFSAR Change #98-10 (void)
David Lee (DES)	10.4.7.1.10	Steve Benesole	Clarify basis of decay heat power	PIP 98-4062	9/2/98	under review by GO Safety Analysis Group	Pre 1998 discrepancy		UFSAR Change #98-37
Shane Klima (DE)	6.2.2.3	Russ Oakley	Clarify that that ES 7 and 8 actuation occurs at 10 psig from which point it takes a max of 92 seconds (for pumps to start, vlvs to open) to deliver RBS flow. Thus ES at 10 psig allows the RBS to meet the TS of ≤ 15 psig.	Accuracy Review PIP 98-4052	9/15/98	4/27/00	Pre 1998 discrepancy	4/27/00	UFSAR Change #98-46
Shane Klima (DE)	10.4.1.4	Jeff Hekking	Cross reference condenser leakage discussion to turbine bldg flooding section (Superseded - see Pkg 99-30)	Accuracy Review PIP 98-4062	9/23/98	XXXXX	Pre 1998 discrepancy	XXXXXX	UFSAR Change #98-47 (see Pkg 99-30)
Kevin Dye (DES)	Fig 6-2	Russ Oakley	Number of RBS nozzles is different per unit. Add note to fig 6-2 to refer to OFD for exact number of RBS nozzles per header.	Accuracy Review PIP 98-4052	10/15/98	ON HOLD pending further review	Pre 1998 discrepancy		UFSAR Change #98-51
Robert Tucker (D)	5.2.3.2	Mike Leighton	Streamline statement about snubbers and reference appropriate section for details	Accuracy Review PIP 97-3723	7/21/98	4/18/00	Pre 1998 discrepancy	4/24/00	UFSAR Change #98-69
Mitch McFarland	6.3.2.3.8	Russ Oakley	Clarify that relief valve setpoints addressed are specifically for for LPI coolers, but the other LPI reliefs with different setpoints also exist (VOID)	Accuracy Review PIP 98-4052	9/28/98	Rejected - excess level of detail	Pre 1998 discrepancy	XXXXXX	UFSAR Change #98-73 (VOID)
Kevin Dye (DES)	6.2.2.2.4	Russ Oakley	Clarify that a minimum of 120 RBS nozzles are available on each header. Also see Chg 98-51	Accuracy Review PIP 98-4052	10/15/98	ON HOLD pending further review	Pre 1998 discrepancy		UFSAR Change #98-74

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Mitch McFarland	6.1.3, 6.2.2.2.1, 6.3.2.2.2	Russ Oakley	There are two BWST alarms provided in the CRoom. Clarify that switchover from BWST to RB sump is performed by the operator when the "emergency low level" alarm is received.	Accuracy Review PIP 98-4052	8/11/98	4/21/00	Pre 1998 discrepancy	4/24/00	UFSAR Change #98-75
Terry Cribbe	5.1.1.1	Mike Leighton	Relocate max limit for RCS volume of 12,200 cubic feet from Current Tech Spec 5.3.2.3 to UFSAR	License Amendment 300/300/300 Improved Tech Specs & PIP 99-1646	2/10/99	2/10/00	2/10/00	3/28/00	UFSAR Change #98-84
Terry Cribbe	6.2.3.1	Jason Patterson	SEE Change 99-2. Relocate paragraph that specifies the fuel xfer tube covers are equipped with double seals AND that RB purge penetrations and atmospheric sampling vlvs are equipped with double vlvs having resilient seating surfaces" from Current Tech Spec 5.2.1 to UFSAR	License Amendment 300/300/300 Improved Tech Specs	2/10/99	7/19/99	ITS Implementation scheduled for 3/27/1999	N/A	UFSAR Change #98-86 (NOTE: This change was superseded by Change 99-2)
Lee Bohn (DES)	8.3.1.3	Bert Spear	Add description of cable & tray identification (including color coding) for Unit's 2&3 safety-related equipment	PIP 98-4056	9/9/98	5/4/00	Pre 1998 discrepancy	5/4/00	UFSAR Change #98-117
Tom Basler (DES)	6.5.1.2	Leland Hawthorne	Clarify which penetrations are embedded lines	editorial & PIP 98-4052	10/2/98	5/1/00	Pre 1998 discrepancy	5/1/00	UFSAR Change #98-119
Kevin Dye (DES)	Table 6-7, Fig 6-9	Jason Patterson	Correct RB penetration table and figure information to match as-built plant (see Change 99-15)	Accuracy Review PIP 98-4052	10/19/98	9/7/99	Pre 1998 discrepancy	N/A	UFSAR Change #98-142 (SEE 99-15 for final resolution)
Mitch McFarland	6.2.4.2, 6.5.1.2, Figs 6-13, 14	Jason Patterson	Delete penetration material and figs duplicated in Chapter 3. Clarify RB normal sump drain penetration includes the H2 recombiner drain.	Accuracy Review PIP 98-4052	5/3/99	5/27/99	Pre 1998 discrepancy	8/16/99	UFSAR Change #98-157
1999 Changes Below									
Austin Burns	9.5.1.4.1	Harold Lefkowitz	Clarify that Fire protection Review Analysis is contained in the FP DBD	PIP 98-2055	5/26/99	6/2/99	Pre 1999 discrepancy	8/16/99	UFSAR Change #99-1

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Contributor	Section Number	Section Owner	Description of Change	Originating Source	Date Inflated	Date Approved	Date Impl.	To Publishing	Comments
Jason Patterson	6.2.3.1	same	The paragraph specifying "double seals AND vlvs having resilient seating surfaces" that was moved from the old Tech Spec 5.2.1 to the UFSAR was eliminated as irrelevant. The function of the containment isolation system is to minimize leakage. The vlv seat tightness is a function of design, not material.	PIP 99-1646	6/17/99	7/7/99	Pre 1999 discrepancy	N/A	UFSAR Change #99-2
Scott Manning	10.4.8, 9, 11-7, Figs 10-9, 11-4	Manning/ Anderson	Add description and separate figure of Once Thru S/G Recirculation System. Describe Conventional Waste Water Treatment System and enhance Fig 11-4.	PIP 98-2947	6/7/99	6/8/99	Pre 1999 discrepancy	8/16/99	UFSAR Change #99-3
Warren Sing	7.7.5	Doug Phelps	Reflect correct reference for control cable and switchboard wiring Standard.	editorial & PIP 98-3895	8/2/99	8/23/99	Pre 1999 discrepancy	9/1/99	UFSAR Change #99-4
Bob Gamberg	Table 5-2	Mike Leighton	Amend Allowable Operating Transient Cycle table limits to reflect re-evaluation of certain flaw tolerances.	PIP 96-2627 CA#12	6/17/99	6/17/99	Pre 1999 discrepancy	8/16/99	UFSAR Change #99-5
Leland Hawthorn	9.5.1.4.4	Harold Lefkowitz	Clarify, reword, and reorganize the ventilation systems description to enhance accuracy, readability, and understanding. Also note that the booster fans run both during an emergency and testing.	PIP 98-4026	6/30/99	9/1/99	Pre 1999 discrepancy	10/13/99	UFSAR Change #99-6
John Beckman	4.2.4.1, 4.3.5, 4.5.3, 15.2, 15.3.3, 15.12.3, Tables 3-5, 4-22, Figs 4-33, 34, 35	Emory/Watrobski Craig/Swindlehurst	Modified UFSAR descriptions to reflect replacement of 34 of the Type A Control Rod Drive Mechanisms (CRDM) and PI preamplifier cards on Unit 1. Replacement CRDMs are Type "C".	NSM- 1,23032 AM1	3/31/99	4/19/00	Unit 1 BOC19	4/27/00	UFSAR Change #99-7
Steve Perrero	15.11.2.5.1	Karen Craig	For the dry cask storage DSCs, clarify that the 50 hr drain down time limit is only applicable to those loaded under the site specific license. Does not apply to the Phase III Gen Lic DSCs.	PIP 99-1188	7/21/99	8/16/99	ISFSI Phase III began operation in 1999	9/1/99	UFSAR Change #99-8

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Aaron Pugh	7.5.2.2.1	Marlon Dempsey	Reflect that 47 of the 52 Core Exit Thermocouples indications are displayed on the plant computer while 5 CETCs are displayed at the SSF unit console.	PIP 99-1387	6/9/99	6/14/99	Pre 1999 discrepancy	8/16/99	UFSAR Change #99-9			
Bob Hester	9.6.3.1, Table 9-18	same	Modified formulae for determining missile penetration depth. Revised Table values accordingly	PIP 98-2055	7/14/99	7/22/99	Pre 1999 discrepancy	8/16/99	UFSAR Change #99-10			
Marlon Dempsey	3.1.28, 7.6.1.1	Dempsey/Sanders	Change all references from "rod control drive" system to "control rod drive" system (CRD)	PIP 98-5940 CA#2	7/26/99	10/26/99	Pre 1999 discrepancy	10/26/99	UFSAR Change #99-11			
Vandy Kim	7.5.2.50	Marlon Dempsey	Clarify that: (1) containment isolation is by valve, not damper and (2) the in-containment isolation vlv limit switches are not required to be EQ	PIP 98-3895	5/27/99	7/26/99	Pre 1999 discrepancy	8/16/99	UFSAR Change #99-12			
Ed Price	Figs 13-1,2,3 & 7	same	Update Corp, Co, and Site Organizational Charts -editorial	PIP 98-5949	8/12/99	8/12/99	Pre 1999 discrepancy	8/16/99	UFSAR Change #99-13			
Stan T Day	6.1.3	Russ Oakley	Reflect revised methodology used to calculate available NPSH for LPI and RBS pumps. Add new Table 6-33	License Amendment 305/305/305	8/2/99	8/10/99	Pre 1999 discrepancy	8/16/99	UFSAR Change #99-14			
Jason Patterson	3.1.53, Table 6-7, Fig 6-9	same	Revised to reflect that flanges and closed loop piping systems are acceptable means of meeting the redundancy design criteria of 3.1.53. Also completely revamped and enhanced Table 6-7 and Fig 6-9. This change also resolves pkg 98-142.	PIP 97-3134	9/7/99	9/7/99	Pre 1999 discrepancy	10/19/99	UFSAR Change #99-15			
Ed Price	13.1.2.2.2.	same	Clarify LIT responsible for computers and networks including OAC, process, and security computers.	Editorial PIP 99-1387	8/24/99	8/24/99	Pre 1999 discrepancy	9/1/99	UFSAR Change #99-16			
Reza Khanpour	3.4.1.1.1	Bob Hester	Clarify statalarm in CR #3; alarm logic 2 out of 4; entry into EOP for Turbine Building Flooding	PIP 98-5940	8/25/99	2/3/00	Pre 1999 discrepancy	5/10/00	USFAR Change # 99-17 Bob has it for review 8/26/99			
Bob Hester	Table 6-23	same	RB concrete and steel thickness reversed - typographical error	Editorial	8/31/99	8/31/99	Pre 1999 discrepancy	9/1/99	UFSAR Change #99-18			

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Shane Klima (DE)	3.1.1.1	Steve Nader	Clarify the AMSAC starts for the EFW pumps are NOT QA-1. The only QA-1 starts are low S/G water level and MFDWP low hydraulic oil pressure.	PIPs 98-03438 & 99-125	7/19/99	9/1/99	Pre 1999 discrepancy	9/1/99	UFSAR Change #99-19
Mo Salim	2.1.1, 2.1.2, Figs 2-4, 5, 32	Austin Burns	Indicate presence of the new Mosquito Control Facility within the plant 1 mile radius	New Construction	8/16/99	8/16/99	Spring 1999	3/28/00	UFSAR Change #99-20
Ed Price	Figs 2-4, 5, 32	Austin Burns	Indicate presence of ISFSI, OOB, MTF, Geo Tech Bldg, etc. within the plant 1 mile radius	Editorial PIP 99-3578	9/2/99	2/20/00	Pre 1999 discrepancy	3/27/00	UFSAR Change #99-21
Eddie Brown	12.1	West Elliot	Update ALARA section to reflect current approved RP program, manuals, and practices	Editorial PIP 99-2505	9/2/99	10/21/99	Pre 1999 discrepancy	10/21/99	UFSAR Change #99-22
Lee Bohn (DES)	7.5.2.41 and 7.5.2.43	Marlon Dempsey	Remove the references to portions of letter from Tucker to Denton & RG 1.97 interpretation	98-4055	9/15/99	10/13/99	Pre 1999 discrepancy	10/19/99	UFSAR Change #99-23
David Lee (DES)	10.4.7.1	Benesole/Clarkson	Condenser Hotwell capacity and seismic qualification	98-4062	9/15/99		Pre 1999 discrepancy		UFSAR Change #99-24
Robert Tucker (D)	4.3.3.1.2, 7.4.1.2.1 & 7.4.1.3	Cornett/Watrowski	Revised sections 4.3.3.1.2, 7.4.1.2.1 & 7.4.1.3 to more accurately describe the pwr range detectors.	98-4055	9/27/99	10/12/99	Pre 1999 discrepancy	10/13/99	UFSAR Change #99-25
Shane Klima (DE)	10.2.1,10.3.1, 10.3.2,10.3.3, 10.4.5.2,10.4.5.4	Ed Price/Jim Weast	Editorial changes where the wrong references were stated	Editorial 98-4062	9/29/99	10/18/99	Pre 1999 discrepancy	10/19/99	UFSAR Change # 99-26
Reza Khanpour	7.5.2.6	Marlon Dempsey	Revision to more accurately reflect actual plant configuration. BWST level (QA)	98-4055	9/29/99	10/13/99	Pre 1999 discrepancy	10/19/99	UFSAR Change # 99-27
Reza Khanpour	7.5.2.22	Marlon Dempsey	Revise the title for section 7.5.2.22	98-4055	9/29/99	10/12/99	Pre 1999 discrepancy	10/19/99	UFSAR Change # 99-28
Lee C Bohn(DES)	Table 8-5 & 8-6	Joe Stevens	Revise Table 8-5&8-6 for 125VDC panelboard for unit 1 and to include units 2 & 3.	98-4056	9/29/99	1/26/00	Pre 1999 discrepancy	1/31/00	UFSAR Change # 99-29

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Shane Klima (DE)	10.4.1.4	Jeff Hekking	Change will cross reference to section 3.4.1.1.1 Current Flood Protection for the turbine & Aux Bild. VOID. The 1998 revision removed the above problem and therefore this change is not required.	98-4062	9/29/99		Pre 1999 discrepancy	XXXXXX	UFSAR Change # 99-30 (VOID)
Mitch McFarland	9.3.1.2.1	Russ Oakley	Get the FSAR to match plant configuration (sample points). This change also resolves Pkg 97-167	98-1986	9/29/99	4/21/00	Pre 1999 discrepancy	5/2/00	UFSAR Change # 99-31
Mitch McFarland	Table 7-5	Bill Rostron	Have the FSAR match the plant configuration (Pressure Transmitter)	98-3895	9/29/99	11/2/99	Pre 1999 discrepancy	11/3/99	UFSAR Change #99-32
Steven G Toney	Table 9-11	Leland Hawthorne	Have the FSAR match the plant configuration (Control room booster fans and air filter trains)	98-1986	9/29/99	11/17/99	Pre 1999 discrepancy	12/28/99	UFSAR Change # 99-33
Greg Lareau	3.2.2	Brown/Sandel	Delete extraneous references to available CCW Inventory Decay heat removal times EXCEPT for the approx 37 days inventory for CCW Intake and discharge lines below elevation 791 ft	PIPs 96-0691 & 96-0864 & ONOE-14158	9/27/99	1/24/00	Pre 1999 discrepancy	1/25/00	UFSAR Change # 99-34
Bob Gamberg	5.2.3.7	Mike Leighton	Revise section 5.2.3.7 to address LTOP issues associated with 33 EFPY limits. Limits are now 100% of SS Appendix G curves.	TS Amend # 307/307/307 & PIP 99-3853	10/6/99	10/19/99	Pre 1999 discrepancy	10/21/99	UFSAR Change # 99-35
Kevin B Dye DE&	6.2.2.2.7	Reed Severance	Reflect the current as-built RBC duct blowout plate configuration.	PIP 98-4052	10/12/99	10/20/99	Pre 1999 discrepancy	4/5/00	UFSAR Change # 99-36
Mitch McFarland	6.3.2.8	Russ Oakley	Clarification of the historical nature of the existing discussions regarding non-metallic material.	98-4052	10/12/99	4/26/00	Pre 1999 discrepancy	4/26/00	UFSAR Change # 99-37
Tom Basler (DES)	6.3.1 +& 6.3.2.5	Russ Oakley	Replace wording RBS to Core Flood and clarification on the metal that comes in contact with borated water.	98-4052	10/12/99	4/21/00	Pre 1999 discrepancy	4/26/00	UFSAR Change # 99-38
Tom Basler (DES)	6.1.1&6.2.2.1	Russ Oakley	More accurately reflect the BS & RBC systems function as specified in licensing documentation. (VOID see note)	98-4052	10/12/99	Rejected by Sect Owner	N/A	XXXXXX	UFSAR Change # 99-39 (Void) - Note BS system maintains RB press below design limit, not temp below EQ limits

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Mitch McFarland	Table 6-4	Matt Streibich	Clarification of LPI ES piping node descriptions and conditions based on a system upgrade.	98-4052	10/13/99	2/24/00	Pre 1999 discrepancy	2/24/00	UFSAR Change # 99-40
David Lee (DES)	10.4.6.6	Jeff Hekking	Revise 10.4.6.6 to more accurately describe the auto start of the spare condensate booster pump.	98-4062	10/25/99	10/26/99	Pre 1999 discrepancy	10/26/99	UFSAR Change # 99-41
Harold Lefkowitz	13.5.1.3.11	same	Clarify that Station's Admin Services group no longer owns fire protection procedures	Editorial & PIP 98-5949	10/20/99	10/26/99	Pre 1999 discrepancy	10/26/99	UFSAR Change # 99-42
Bob Harvey (GO)	15.14	Eppler/Swindlehurst	Clarify: (1)small break size that can be maintained by normal injection AND (2) wording for 3 RCP operations computer model case. Correct references	PIP 98-6054	10/1/99	11/16/99	Pre 1999 discrepancy	3/29/00	UFSAR Change # 99-43
Harold Lefkowitz	9.5.1.6.19	same	Clarify the Radwaste Facility fire protection features and which associated equipment is OOS	Editorial & PIP 98-4782	10/20/99	10/26/99	Pre 1999 discrepancy	10/26/99	UFSAR Change # 99-44
Jeff Edgar	7.2.3.9, 7.7.2	Cornett/Phelps	Update to reflect replacement of Rad Monitoring (RMS) and Transient monitoring (TMS) computers with new Y2K compliant Process Monitoring Computer (PMC) system	NSMs X-3055	6/1/99	11/11/99	Fall 1999	3/29/00	UFSAR Change # 99-45
David Lee (DES)	Fig 10-8	Steve Benesole	Revise the figure to meet the plant configuration of the piping from the condenser hot wells to suction of MDEFWP. This modification not done yet.	PIP 98-4062	10/27/99		Being done on Unit 3 Spring 00.		UFSAR Change # 99-46
Reza Khanpour	7.8.2.1	Marlon Dempsey	Delete interface listing from 7.8.2.1 and add it to 7.8.2.2 & add a discussion of the TBV control functions.	98-4055	10/28/99	11/2/99	Pre 1999 discrepancy	11/3/99	UFSAR Change #99-47
Lee C Bohn(DES)	8.1.2; 8.3.1.1 & 8.3.2.2.4	Jeff Rowell / Joe Stevens	This revision will add information to these sections to make them more accurately match the actual plant condition.	98-4056	10/28/99	4/18/00	Pre 1999 discrepancy	4/19/00	UFSAR Change #99-48

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MJ Littleton	11.2.2.3, 11.3.2.3	same	Denote that the Radwaste generation rates given are <i>historical</i> , not current. Actual amounts are reported in the Annual Effluent Report per SLC 16.11.9 (See Change 99-107)	98-5942	10/27/99	11/2/99	Pre 1999 discrepancy	11/2/99	UFSAR Change #99-49
Basil Carney	3.7.3.1, Table 6-7, Fig 6-9	Patterson/Chau	Eliminate filtered water penetration 46 into RB on Units 1,2 &3. Add note about filtered water to seismic section. Reflect on Table 6-7 and Fig 6-9. See change 99-15	ONOE-10972, 11275, 11283	5/11/99	5/3/00	1999 Mods U1 spring 99, U2 Fall 99	5/3/00	UFSAR Change #99-50 (Also see Change 99-15)
Tim Brown	3.2.2.1, 5.2.2.2	Brown/Sandel/ Carney	Reflect completion of the Class 1 fatigue analysis of the RCS branch lines	PIP 98-5940	11/30/99	12/20/99	8/31/99	12/27/99	UFSAR Change #99-51
Ken Grayson	Table 9-14	same	Correct SSF component UFSAR info to match component nameplate info	PIP 98-2055, CA#99	11/3/99	11/3/99	Pre 1999 discrepancy	12/8/99	UFSAR Change #99-52
Henry Harling	3.1.1.1, 3.1.2	Nader/McAninch	Information about the ECCW and ESV systems should be in 3.1.1.1 versus 3.1.2	Editorial and NSM-53003	11/30/99	3/21/00	Pre 1999 discrepancy	3/22/00	UFSAR Change #99-53
P. H. Patel	Table 3-2	Bob Hester	Include CCW discharge piping and ECCW structural portion piping as seismically designed	PIP 98-3814	12/14/99	2/3/00	Pre 1999 discrepancy	2/3/00	UFSAR Change #99-54
P. H. Patel	2.4.11.6	Brant Elrod	Correct volume of water trapped in CCW system below 791 ft . This Pkg covers #99-125.	PIP 98-3814	12/14/99	2/29/00	Pre 1999 discrepancy	3/1/00	UFSAR Change #99-55
Cam Eflin	13.2.4	Bentley Jones	Delete extraneous rev date from training/qual standard	editorial	12/20/99	12/20/99	Pre 1999 discrepancy	12/27/99	UFSAR Change #99-56
Dave Adams	13.5.1.3.3	Ronnie Lingle	Clarify that ALL work must be cleared thru the WCC SRO	editorial	12/20/99	12/20/99	Pre 1999 discrepancy	12/27/99	UFSAR Change #99-57
Jan Muransky	6.2.1.4.2, Tables 6-29 and 30	Swindlehurst/ Oakley	Include pipe diameter corresponding to a 6.3 ft**2 break and clarify water/steam flowrates	editorial & PIP 98-5969	12/22/99	1/31/00	Pre 1999 discrepancy	1/31/00	UFSAR Change #99-58
Eric Lampe	5.2.3.10.3	Mike Leighton	Include sampling of Xe and Tritium as additional methods to determine S/G tube leakage	OP/0/A/1106/0 31 & PIP 99-3613	1/4/00	2/10/00	1998 procedure change	2/10/00	UFSAR Change #99-59
Jay Bryan	7.9	Marlon Dempsey	Describe MSLB detection and FDW isolation cktry. Indicate online test panel is installed on U2	NSM-23058	1/12/00	1/28/00	1999 Unit 2 Modification	1/31/00	UFSAR Change #99-60

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					Date Initiated	Date Approved	Date Impl.	To Publishing	
Chuck Shore	5.2.3.10.5	Mike Leighton	Reflect new LDST level alarm limits now in effect for all 3 units	NSMs- 12885, 22885	1/13/00	4/18/00	1999 Units 1&2 Modifications	4/18/00	UFSAR Change #99-61
Vance Bowman	7.5.2.46	Marlon Dempsey	Remove ref to 75F as LPSW design temp	PIP 99-3318	1/10/00	1/28/00	Pre 1999 discrepancy	1/31/00	UFSAR Change #99-62
Tom Wiggins	15.14.4.2	n/a	Delete ref to fuel used in U3C17, which is complete	editorial	1/20/00	3/29/00	1999 change	3/29/00	UFSAR Change #99-63
Rick Burgess	Table 9-10	Mike Leighton	Replace pos displacment CBAST pumps on Units 1&2 with Centrifugal. New pump capacity is 50 gpm	NSMs 1&23044	6/14/99	2/10/00	1999 Units 1&2 Modifications	2/10/00	UFSAR Change #99-64
Doug Moss	8.3.1.1.2, Fig 8-3	Ron Beaver	Change timer delay from 1 to 1.8 seconds when normal 6900V source is lost	NSMs - 1,22983	6/21/99	5/9/00	1999 Units 1&2 Modifications	5/9/00	UFSAR Change #99-65
Jeff Edgar	Table 3-68	Ray McCoy	Add qualification report reference for new I&C batteries and racks on U2	NSM-22998	7/14/99	3/29/00	1999 Unit 2 Modification	3/29/00	UFSAR Change #99-66
	3.1.49, Fig 6-3	Reed Severance	Eliminate power operators on RBCU dampers on Unit 2	NSM-23041	11/12/99	3/28/00	1999 Unit 2 Modification	3/28/00	UFSAR Change #99-67
Jay Bryan	8.3.2.1.8, 8.3.2.2	Joe Stevens	Upgrade trouble alarms in the 125 vdc Vital I & C system by replacing existng ground detection relays and enhancing detection capability	NSM-53004	1/25/00	4/4/00	1999 Modification	4/6/00	UFSAR Change #99-68
Sid Lewis	Table 6-16	Bob Leatherwood	Reflect 1HP-27 operator is Limatorque SB-0-25. This table has been deleted by 99-76 which superseded this change.	ONOE-12474	1/26/00	1/31/00	1999 Unit 1 Modification	1/31/00	UFSAR Change #99-69
Chris Miller	Fig 8-4	Jim Groves	Replace CY starters in MCC XS1. Correct fig from THEF to THED type ckt bkrs	ONOE-12791, 12843	2/24/99	4/5/00	1999 Unit 1 Modification	4/6/00	UFSAR Change #99-70
Jeff Robinson	2.3.3.2	Doug Berkshire	Upgrade meteorological systems - new manufacturer names	ONOE-13075	9/29/99	2/2/00	1999 Modification	2/2/00	UFSAR Change #99-71
Sid Lewis	6.3.2.6.3, Table 6-16	Matt Streibich	Reflect changeout of 2LP-17 & 18 with 12" vlvs and Rotork EMOs. This change has been superseded by 99-76 which deleted the affected UFSAR table.	ONOE-13282 & 13284	7/14/99	2/21/00	1999 Unit 2 Modification	2/24/00	UFSAR Change #99-72
Harold Lefkowitz	9.5.1.4.3, 9.6.6	same	Implement enhanced fire barrier seal specifications and calcs	ONOE-13494	5/26/99	5/26/99	1999 change	1/31/00	UFSAR Change #99-73

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					Date Initiated	Date Approved	Date Impl.	To Publishing	
Clay McNeil	Figs 9-30, 31,32,33,34	Ken Grayson	Correct SSF physical layout figure: enhance readability, correct elevations and fire/flood barriers, etc.	ONOE-13685 & PIP 99-3334	10/15/99	2/1/00	Pre 1999 discrepancy	2/2/00	UFSAR Change #99-74
Ken George	Table 6-2, Figs 6-1,2 & 9-19	Russ Oakley	Blank off piping at the inlet to vlv 2BS-7 and at the outlet of 2BS-9 to eliminate a leakage path between the LPI and BS systems.	ONOE-14087	11/3/99	11/3/99	11/30/99	3/27/00	UFSAR Change #99-75
Jason Patterson	6.3.2.6.3, Table 6-16	Bob Leatherwood	Delete irrelevant information about design, testing, and fabrication of ECCS valves. Clarify the components are designed, tested and maintained	PIP 98-3893	1/27/00	2/2/00	2/2/00	2/3/00	UFSAR Change #99-76
Stan Hayes	4.5.2.4	Hayes/Perrero	Describe fuel tubular spacer	OSC-7426	6/10/99	2/10/00	1999 Modification	2/10/00	UFSAR Change #99-77
Mike Leighton	3.4.1.1.2	Bob Hester	Change RBNS level indicator graduation from 7.5 to 1.5 gals	Editorial & ONOE-4032	2/3/00	2/3/00	Pre 1999 discrepancy	2/3/00	UFSAR Change #99-78
Bob Hester	3.8.1.2, 3.8.1.7.4	Hester /Patterson	Include applicable new ASME code. Leakage monitoring and tendon surveillance program revised to concur with TS amendments 310.	License Amendment 310,310,310 & 50.59	2/1/00		2000 TS change		UFSAR Change #99-79
James Hamlen	Table 11-6	Mary Jo Littleton	Editorial change	PIP 98-5935	12/22/99	2/23/00	Pre 1999 discrepancy	4/18/00	UFSAR Change #99-80
Mitch McFarland	11.6.3.6.2.2	Mary Jo Littleton	Corrects inaccurate statements regarding the areas of the radwaste that are air conditioned.	PIP98-5935	12/22/99	3/20/00	Pre 1999 discrepancy	4/18/00	UFSAR Change #99-81
Mitch McFarland	11.6.1.1	Mary Jo Littleton	Clarifies discription of safety evaluation of Rad Waste in FSAR	PIP 98-5935	12/22/99	3/8/00	Pre 1999 discrepancy	4/18/00	UFSAR Change #99-82
Phyllis Simmons	7.5.1.4.1, 7.5.2.58	Marlon Dempsey	Reflect use of OAC versus chart recorders to monitor LPSW flow	ONOE - 13892, 13893, 13894	10/13/99	2/16/20	1999 Modifications	2/16/00	UFSAR Change #99-83
John W Walker	11.6.7.2.1 & 11.6.7.2.2	Mary Jo Littleton	better document derivation of source terms and more correctly state the classes of drawings for radiation zones.	PIP 98-5935	12/22/99	2/10/00	Pre 1999 discrepancy	4/24/00	UFSAR Change # 99-84
Mitch McFarland	11.2.2.1	Mary Jo Littleton	More accurately reflect the drainage paths for both RWF and IRB areas.	PIP 99-5935	12/29/99	3/20/00	Pre 1999 discrepancy	4/18/00	UFSAR Change # 99-85
Mitch McFarland	Table 11-6	Mary Jo Littleton	revises the capacity and head of the LAWT & HAWT pumps	PIP 98-5935	12/29/99	3/20/00	Pre 1999 discrepancy	4/18/00	UFSAR Change # 99-86
James Hamlen	11.3.2.2	Doug Berkshire	Clarifies the discription of the operation of the waste gas treatment system.	PIP 98-5935	12/29/99	2/17/00	Pre 1999 discrepancy	2/24/00	USFAR Change # 99-87

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James Hamlen	11.3.1	Doug Berkshire	Clarify the description of the design/operation of the GWD system.	PIP 98-5935	12/29/99	2/17/00	Pre 1999 discrepancy	2/24/00	UFSAR Change # 99-88	
Mitch McFarland	11.5.2 & Table 11-7	Doug Berkshire	Configuration of UFSAR RIAs to what is in plant.	PIP 98-5935	12/29/00	2/17/00	Pre 1999 discrepancy	2/24/00	UFSAR Change #99-89	
Allen Park	10.2.4, 10.4.6.3	Anderson/Royal	Relocate 1st sentence of 10.4.6.3 to 10.2.4	Editorial & PIP 99-4587	2/10/00	2/10/00	Pre 1999 discrepancy	2/10/00	UFSAR Change #99-90	
Vance Bowman	9.2.2.2.3, 11.5.2	Bowman/Berkshire	Clarify design bases for radiation monitoring on LPSW system	PIP 00-217	2/14/00	2/14/00	Pre 1999 discrepancy	3/1/00	UFSAR Change #99-91	
Mitch McFarland	11.2.1	Mary Jo Littleton	Clarify applicability of release intergration and control to liquid waste disposal methods.	PIP 98-5935	12/29/99	3/20/00	Pre 1999 discrepancy	4/18/00	UFSAR Change #99-92	
Mitch McFarland	11.1 & 11.4.1	Littleton/Bowser	Clarify the design basis of the solid waste management W applicable SLC	PIP 98-5935	12/29/99	4/19/00	Pre 1999 discrepancy	4/19/00	USFAR Change #99-93	
Mitch McFarland	11.2.2.3 & 11.6.3.1.2	Mary Jo Littleton	Clarifies storage capacity available in Rad Waste Fac. Waste/recycle feed tks. This is voided, covered under change 99-49.	PIP 98-5935	112/30/99	VOID	Pre 1999 discrepancy	XXXXX	UFSAR Change #99-94	
John W Walker	Fig 11-5	Mary Jo Littleton	Deletes Fig 11-5 not referenced in any section of FSAR and some information isn't illegible.	PIP 98-5935	12/30/99	3/20/00	Pre 1999 discrepancy	4/18/00	UFSAR Change #99-95	
Mitch McFarland	Fig 11-3	Mary Jo Littleton	Clarifies the location of the flow meter & RIA od GWD disc header.	PIP 98-5935	12/30/99	2/22/00	Pre 1999 discrepancy	4/18/00	UFSAR Change #99-96	
Mitch McFarland	Table 11-6	Mary Jo Littleton	Makes data on table 11-6 match what is in the plant.	PIP 98-5935	12/29/99	3/20/00	Pre 1999 discrepancy	4/18/00	UFSAR Change #99-97	
Tom Basler (DES)	Table 1-1	Ed Price/Jim Weast	Change the construction and operating permit dates for U 1&3	PIP 98-5921	4/30/99	2/29/00	Pre 1999 discrepancy	2/29/00	UFSAR Change #99-98	
Tom Basler	1.1	Ed Price	Editorial change	PIP 98-5921	6/30/99	2/29/00	Pre 1999 discrepancy	2/29/00	UFSAR Change #99-99	

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Swindlehurst/Abb	3.1.6, 31, 32, 3.9.3.1.1.1.5, 4.2.1.2, 4.3.1, 4.3.2.5.6, 4.3.3, 5.2.3.4.8, 7.6.1.1.3, 10.3.2.3, 10.4.8, 15.1, 39, 12, 13, 17, Tables 2-29, 30, 5-15, Figures 15:1-6, 11-36, 40-43, 113-141, 143-173	Multiple	Incorporate new T-H Transient Analysis Methodology in accordance with TS Change 99-06 "Reload Submittal". This item involves changes to many Non-LOCA accident analyses. Also, address Atmospheric Dump Valves, Pzr safety vlvs, unborated water sources, reactivity insertion rates etc. See individual changes below. CONTACT REG COMPLIANCE IF YOU NEED TO REVIEW THE HARDCOPY	PIP 99-1248 Lic Amend 309, 309, 309, AND 50.59	2/17/00	2/17/00	2/17/00	3/27/00	UFSAR Change #99-100
Swindlehurst/Abb	Tables 2-29, 30	Doug Berkshire	Update dispersion factors for new accident analyses	PIP 99-1248	3/21/00	4/17/00	2/17/00	4/17/00	UFSAR Change #99-100-1
Swindlehurst/Abb	multiple	multiple	Editorial/clarification type changes for new accident analyses	editorial	3/21/00	3/27/00	2/17/00	3/27/00	UFSAR Change #99-100-2
Swindlehurst/Abb	3.9.3.1.1.1.5	Tim D. Brown	Indicate tube stress analysis relocated from 15.13.4 to 5.2.3.4	PIP 99-1248	3/21/00	4/4/00	2/17/00	4/4/00	UFSAR Change #99-100-3
Swindlehurst/Abb	5.2.3.4	Jim Batton	Relocate S/G tube stress analysis from 15.13.4 to 5.2.3.4	PIP 99-1248	3/21/00	3/30/00	2/17/00	4/3/00	UFSAR Change #99-100-4
Swindlehurst/Abb	5.2.3.8, Table 5-15	Mike Leighton	Denote that: (1) the analyses for crud filling the instrument lines to RCS flow indicators is historical and not applicable to current accident analyses, (2) the entire HPI system, versus 1 pump, protects the core from an opening larger than a pzr code safety in the open position, and (3) the rx will not be operated in 2 pump single loop config.	PIP 99-1248	3/21/00	3/20/00	2/17/00	4/18/00	UFSAR Change #99-100-5
Swindlehurst/Abb	15.1, 3-7, 9, 12, 13, 17, Figures 15:1-6, 11-36, 40-43, 113-141, 143-173	Eppler/Swindlehurst	Incorporate new T-H Transient Analysis Methodology in accordance with TS Change 99-06 "Reload Submittal". This item involves changes to many Chapter 15 Non-LOCA accident analyses.	PIP 99-1248 Lic Amend 309, 309, 309, AND 50.59	2/17/00	4/13/00	2/17/00	4/27/00	UFSAR Change #99-100-6

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Swindlehurst/Abb	15.9,13,17	Curtis/Eppler/Swindlehurst	Incorporate new T-H Transient Analysis Methodology in accordance with TS Change 99-06 "Reload Submittal". This item involves changes to many Chapter 15.9,13,17 Non-LOCA accident analyses.	PIP 99-1248 Lic Amend 309, 309, 309, AND 50.59	2/17/00	4/17/00	2/17/00	4/18/00	UFSAR Change #99-100-7
Swindlehurst/Abb	15.8	Rostron/Swindlehurst	Incorporate new Analysis for Turbine Trip and delete Loss of Load accident.	PIP 99-1248 Lic Amend 309, 309, 309, AND 50.59	2/17/00	5/8/00	2/17/00	5/8/00	UFSAR Change #99-100-8
Swindlehurst/Abb	4.2, 4.3	Sanders/Hayes	Address reactivity insertion rates consistent with new Chapter 15 analyses	PIP 99-1248 Lic Amend 309, 309, 309, AND 50.59	2/17/00		2/17/00		UFSAR Change #99-100-9
Swindlehurst/Abb	7.6.1.1.3	Marlon Dempsey	Address reactivity insertion rates consistent with new Chapter 15 analyses	PIP 99-1248 Lic Amend 309, 309, 309, AND 50.59	2/17/00	4/12/00	2/17/00	4/17/00	UFSAR Change #99-100-10
Tom Basler	1.2.2.2	Ed Price	Change UFSAR to match as built design.	PIP 98-5921	6/30/99	VOID	Already corrected in 98 update	XXXXX	UFSAR Change #99-101(VOID)
Tom Basler	1.2.2.9	Ed Price	Provide consistency with section 11.	PIP 98-5921	5/24/99	2/29/00	Pre 1999 discrepancy	2/29/00	UFSAR Change #99-102
Tom Basler	1.2.2.6	Ed Price	Change UFSAR to match as built design.	PIP 98-5921	4/30/99	2/29/00	Pre 1999 discrepancy	2/29/00	UFSAR Change #99-103
Tom Basler	1.2.2.9	Ed Price	More accurately reflect the current operational status of the Interim Radwaste Building.	PIP 98-5921	6/30/99	3/1/00	Pre 1999 discrepancy	3/1/00	UFSAR Change #99-104
Tom Basler	1.2.2.3	Ed Price	Provides additional clarification on cont. isolation system.	PIP 98-5921	6/30/99	3/1/00	Pre 1999 discrepancy	3/1/00	UFSAR Change #99-105
Tom Basler	Table 1-2 & 3.1.1.1	Price/Nader	Identify PRVS equipment as an Engineered Safeguards system	PIP 98-5921 & 99-0125	4/30/99	3/1/00	Pre 1999 discrepancy	3/1/00	UFSAR Change #99-106
Doug Berkshire	11.3.2.3, 11.5.2, Tables 11-1, 7	same	Update and correct RIA information. Clarify potential effluent generation rates as historical	PIP 98-5942	2/25/00	2/25/00	2/25/00	3/1/00	UFSAR Change #99-107
Vandy Kim	7.5.2.53	Marlon Dempsey	Correct design flow ranges of the Unit RB Vent stack flow instruments	PIP 98-3895	2/8/00	2/14/00	2/14/00	3/1/00	UFSAR Change #99-108
Doug Berkshire	Fig 2-24	same	Correct elevation for base of meteorological tower per most recent survey	PIP 98-5938	2/10/00	2/10/00	2/10/00	3/1/00	UFSAR Change #99-109

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Contributor	Section Number	Section Owner	Description of Change	Originating Source	Date Initiated	Date Approved	Date Impl.	To Publishing	Comments	
Jason Patterson	3.1.55, 3.8.1.7.4	same	Update containment testing description, practices and requirements to be consistent with TS and 10 CFR 50 App J, Option B	License Amendments 218/218/215 and 50.59	2/24/00	3/1/00	Pre 1999 discrepancy	3/1/00	UFSAR Change #99-110	
Ron Harris	9.2.2.2.3, Fig 9-10	Vance Bowman	Indicate HPSW interconnections to LPSW are not used	ONOE-14021	10/18/99	3/1/00	3/1/00	3/29/00	UFSAR Change #99-111	
Shane Klima (DE	2.1.3	Austin Burns	Updates the description of the nearest population center.	PIP 98-5922	6/30/99	4/5/00	Pre 1999 discrepancy	4/17/00	UFSAR Change #99-112	
Tom Basler	Tables 3-2,3,7,26,27,28,48,51,52,68 & F3-4,5	Tim Brown,Bob Hester,Peter Chau, Roy Mccoy	Editorial changes	PIP 99-0125	6/25/99	3/29/00	Pre 1999 discrepancy	3/29/00	UFSAR Change #99-113	
Bob Cornett	3.1.2.3, 7.1.2.1	Cornett/Dempsey	Clarify relay room is really "cable" room. Add clarifying info to temp and humidity requirements in 7.1.2.1	Editorial & PIP 99-4269	2/23/00	3/2/00	Pre 1999 discrepancy	3/2/00	UFSAR Change #99-114	
Rick Bond	13.4.2.2	same	Replace specific qualifications for SRG personnel with reference to QA Topical Report	Editorial & PIP 00-504	3/6/00	3/6/00	3/6/00	3/7/00	UFSAR Change #99-115	
Shane Klima (DE	2.3.3.2	Doug Berkshire	Revises the wind speed instrumentation design to reflect as-built. This change is covered by Pkg 99-71.	PIP 98-5922	4/27/99	VOID	Pre 1999 discrepancy	XXXXX	UFSAR Change #99-116	
Shane Klima (DE	2.1.3.1	Austin Burns	Discuss how the current population data is referenced.	PIP 98-5922	4/27/99	4/3/00	Pre 1999 discrepancy	4/4/00	UFSAR Change #99-117	
Shane Klima (DE	2.2.2.2 & 2.2.3.1.3	Austin Burns	Revised to ensure consistency with site documents and actual site practices.	PIP 98-5922	6/29/99	4/4/00	Pre 1999 discrepancy	4/5/00	UFSAR Change #99-118	
Shane Klima (DE	2.3.4.2	Doug Berkshire	Provides additional discription of the meteorological basis elevated release dispersion factors.	PIP 98-5922	4/30/99	3/22/00	Pre 1999 discrepancy	3/22/00	UFSAR Change # 99-119	
David Lee	Table 2-94	Ray McCoy	Changes the epicentral location of an earthquake cited in the table	PIP 98-5922	5/1/99	3/21/00	Pre 1999 discrepancy	3/27/00	UFSAR Change # 99-120	
Shane Klima (DE	Table 2-6	Austin Burns	Provide consistency with between the UFSAR and PSAR historical population data	PIP 98-5922	4/23/99	4/5/00	Pre 1999 discrepancy	4/6/00	UFSAR Change # 99-121	
Shane Klima (DE	2.3.3.2	Doug Berkshire	Corrects inaccurate description of the meteorological equipment.	PIP 98-5922	3/31/99	3/13/00	Pre 1999 discrepancy	3/15/00	UFSAR Change #99-122	
Shane Klima	2.3.4.2	Doug Berkshire	Corrects a reference to a figure number.	PIP 98-5922	6/30/99	3/13/00	Pre 1999 discrepancy	3/15/00	UFSAR Change #99-123	

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					Date Initiated	Date Approved	Date Impl.	To Publishing	
shane Klima	Tables 2-10, 2-15, 2-17, 2-23	Doug Berkshire	Updates the historical site meteorological data prior to construction.	PIP 98-5922	4/23/99	3/13/00	Pre 1999 discrepancy	3/15/00	UFSAR Change # 99-124
David Lee	2.4.11.6	Brant Elrod	Ensure consistency in the FSAR to existing plant analysis contained in OSC-0864. This has been voided since covered by #99-55.	PIP 98-5922	4/30/99	VOID	Pre 1999 discrepancy	XXXXX	UFSAR Change # 99-125
Reza Khanpour	3.1.1.1	George McAnnich	Ensure consistency in the FSAR to UFSAR section 7.5.2.6 elementary drawings and OSC-3189.	PIP 99-0125	6/25/99	3/28/00	Pre 1999 discrepancy	3/28/00	UFSAR Change # 99-126
Reza Khanpour	3.3.2.1	Bob Hester	Minor clarifications and a cross reference to section 9.6.3.1 for clarity of tornado design in class1	PIP 99-0125	5/17/99	4/5/00	Pre 1999 discrepancy	4/6/00	UFSAR Change # 99-127
Reza Khanpour	3.4.1.1	Bob Hester	Minor clarification to SSF section for consistency which is class 1 and subject to flooding. Disapproved by owner. Void	PIP 99-0125	6/4/99	VOID	Pre 1999 discrepancy	XXXXX	UFSAR Change # 99-128 (Void)
Tom Basler	3.2.1.1.1	Bob Hester	Provides consistency with section 9 by the addition of the SSF as a class 1 structure.	PIP 99-0125	6/11/99	4/17/00	Pre 1999 discrepancy	4/24/00	UFSAR Change #99-129
Reza Khanpour	3.4.1.1	Bob Hester	Consistency with flow diagrams and instrument details for 2,3CCW-84.	PIP 99-125	5/28/99		Pre 1999 discrepancy		UFSAR Change #99-130
Dan Harrelson	9.4.6.3	same	Clarify design requirements for RBS and RBC systems and make consistent with related UFSAR sections	PIP 98-2055, CA#80	3/13/00	3/13/00	Pre 1999 discrepancy	3/22/00	UFSAR Change #99-131
Tom Basler	3.8.1.7.2	Bob Hester	Revise this section to be consistent with spec. OSS-267.00-00-0090 & drawing 0-78A.	PIP 99-0125	6/11/00	4/5/00	Pre 1999 discrepancy	4/6/00	UFSAR Change # 99-132
Tom Basler	3.1.70	Mary Jo Littleton	Provide completeness & consistency with U FSAR and SLCs 16-11-1 & 2	PIP 99-0125	6/11/00	3/23/00	Pre 1999 discrepancy	4/18/00	UFSAR Change # 99-133
Reza Khanpour	3.8.1.6.1	Bob Hester	Deletes the duplicated information in the 5th paragraph of sect. 3.8.1.6.1. This has been disapproved. VOID	PIP 99-0125	8/13/99	VOID	Pre 1999 discrepancy	XXXXX	UFSAR Change # 99-134 (Void)
Tom Basler	3.7.2.4.1	Bob Hester	To be consistent with Fig 3-6, OSS-027B.00-00-0002 & OCC-0431. This has been disapproved. VOID	PIP 99-0125	6/19/99	VOID	Pre 1999 discrepancy	XXXXX	UFSAR Change #99-135 (Void)

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Tom Basler	3.8 & 3.8.3	Bob Hester	Updates titles & format of sect. 3.8 & 3.8.3 to be consistent & accurately reflect the discussion in each section.	Editorial & PIP 99-0125	6/11/99	4/5/00	Pre 1999 discrepancy	5/9/00	UFSAR Change #99-136	
Mary Jo Littleton	11.2.2.1, 11.6.1.3, Table 11-6, Fig 11-2	same	Replace existing Fig 11-2 with enhanced Fig. Correct that Waste xfer pump diff head is 200 ft. Update the Interim Radwaste Facility is not used for liquid processing.	PIP 98-5942	3/10/00	3/27/00	Pre 1999 discrepancy	3/27/00	UFSAR Change #99-137	
Reza Khanpour	3.6.1.3 & 3.6.2	Bob Hester	Revises sections 3.6.1.3 & 3.6.2 to be consistent with the current MDS Report OS-73.2.	Editorial & PIP 99-0125	6/11/99	4/17/00	Pre 1999 discrepancy	4/17/00	UFSAR Change # 99-138	
Shane Klima	Fig 2-36 & 2-37	Doug Berkshire	Ensure consistency between current UFSAR and the original FSAR .	PIP 98-5922	4/25/99	4/17/00	Pre 1999 discrepancy	4/17/00	UFSAR Change # 99-139	
Mitch McFarland	Figures 9-27 & 9-28	Phillip Wade	Clarification of Fig 9-27 & 9-28 for consistency with the as installed & drawing configuration	PIP 98-1986	1/6/99		Pre 1999 discrepancy		UFSAR Change #99-140	
David Lee	2.4.1.2 & Figure 2-39	Brant Elrod	Revises section 2.4.1.2 & Fig 2-39 to provide consistency between various SAR documents. Change was disapproved by the owner. Void	PIP 98-5922	4/29/99	VOID	Pre 1999 discrepancy	XXXXX	UFSAR Change #99-141	
David Lee	Table 2-93, Fig 2-40, 2-41 & 2-42	Brant Elrod	Addition of missing notes and cross references to be consistent with SAR documents.	PIP 98-5922	5/1/99	4/17/00	Pre 1999 discrepancy	4/18/00	UFSAR Change # 99-142	
Tom Basler	5.2.1.5.1, 5.2.3.11.1, 3.9.3.1.1 & table 5-3	Tim Brown	Revision to provide consistency with topical report BAW 10008 and OSC-6647.	PIP 99-0125	8/12/99		Pre 1999 discrepancy		UFSAR Change # 99-143	
Tom Basler	5.2.1.5	Tim Brown	Make paragraph one grammatically correct.	Editorial	6/12/99	4/4/00	Pre 1999 discrepancy	4/5/00	UFSAR Change #99-144	
Louis Bohn	8.2.1.3 & 8.3.2.1.2	Ron Beaver Joe Stevens	Editorial, very minor changes	Editorial	5/24/99	3/30/00	Pre 1999 discrepancy	3/30/00	UFSAR Change #99-145	
Shane Klima	7.2.3.1 & 7.6.1.1.8	Bob Cornett Marlon Dempsey	Editorial , Very minor changes	Editorial	6/4/99	3/30/00	Pre 1999 discrepancy	3/30/00	UFSAR Change # 99-146	

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Reza Khanpour	11.4.2, 11.5.1, 11.6.1.3, 6.2.2, 11.6.2.3, 11.6.3.2, 11.6.5.2,	Rick Bowser Doug Berkshire Mary Jo Littleton	Editorial, very minor changes	Editorial	6/18/99	4/17/00	Pre 1999 discrepancy	4/17/00	UFSAR Change # 99-147
Tom Basler	12.4.6	S. L. Morgan	Revises the UFSAR to be consistent with NSD & station procedures.	PIP 98-5936	4/30/99	4/17/00	Pre 1999 discrepancy	4/18/00	UFSAR Change #99-148
Tom Basler	12.4.3	Eddie Brown	Accurately reflect the location of janitorial sinks in the Aux. Build.	PIP 98-5936	6/30/99	4/4/00	Pre 1999 discrepancy	4/4/00	UFSAR Change # 99-149
Tom Basler	14.6.1	Tom Curtis	Reference list has a minor typo error.	Editorial	5/17/99	4/3/00	Pre 1999 discrepancy	4/3/00	UFSAR Change # 99-150
Tom Basler	13.1.2.4 & 13.2.2.2.1	Ed Price	Editorial, very minor changes	Editorial	6/30/99	4/3/00	Pre 1999 discrepancy	4/3/00	UFSAR Change # 99-151
Tom Basler	13.2.2.1	Bentley Jones	Clarify the applicability of GET Training/	PIP 98-5937	5/1/99	4/19/00	Pre 1999 discrepancy	4/24/00	UFSAR Change # 99-152
Tom Basler (DES)	13.2.2.1.1	Bentley Jones	Remove the reference that the fire brigade as primary purpose in first aid training.	PIP 98-5937	5/14/99	4/24/00	Pre 1999 discrepancy	4/24/00	UFSAR Change # 99-153
Tom Basler	13.6	Teresa Melter	Provide consistency with Licensing Bases by indicating an exemption to 10CFR 73.55.	PIP 98-5937	6/4/99	4/11/00	Pre 1999 discrepancy	4/17/00	UFSAR Change # 99-154
Reza Khanpour	3.4.1.1.2	Bob Hester	Clarify the discussion of in/out leakage applying to the CC system.	PIP 99-0125	6/29/99	VOID - See pkg 99-78	Pre 1999 discrepancy	XXXXX	UFSAR Change # 99-155 (VOID)
Tom Basler	3.8.1.7.5	Reed Severance	Clarify the surveillance requirements as stated in SR 3.6.5.7 & SR 3.7.10.3.	PIP 99-0125	6/29/99	4/26/00	Pre 1999 discrepancy	4/26/00	UFSAR Change #99 -156
Tom Basler	3.8.1.6.1	Bob Hester	Clarify & consistent with OSS-160.00-00-0000 & adding ASTM test identifiers.	PIP 99-0125	6/12/99	4/6/00	Pre 1999 discrepancy	4/6/00	UFSAR Change # 99-157
Aaron Pugh	7.5.2.42	Marlon Dempsey	Denote that U3 has 12 air temp thermocouples for the Rx Bldg versus 13 for Units 1&2	ONOE-14610	3/9/00	3/24/00	Pre 1999 discrepancy	4/4/00	UFSAR Change # 99-158
Tom Basler	3.8.5.3.1	Bob Hester	Provide consistency with UFSAR section 3.8.4.7 definition of construction method for Masonry.	Editorial & PIP 99-0125	6/11/99	4/5/00	Pre 1999 discrepancy	4/6/00	UFSAR Change #99-159
Shane Klima	3.9.3.1.1 & 5.2.1.5.1	Tim Brown	Provides consistency between UFSAR and original BAW report.	PIP 99-0125	5/28/99	4/17/00	Pre 1999 discrepancy	4/17/00	UFSAR Change # 99-160
Shane Klima	Tables 3-7 & 3-8	Bob Hester	Addition of omitted text and a typo.	PIP 99-0125	3/31/99	4/5/00	Pre 1999 discrepancy	4/6/00	UFSAR Change # 99-161

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Contributor	Section Number	Section Owner	Description of Change	Originating Source	Markup Status per NSD 220				Comments
					Date Initiated	Date Approved	Date Impl.	To Publishing	
Tom Basler	3.8.5.6	Bob Hester	To be consistent with Drawings K-150 and K-206 (3000psi for concrete)	Editorial & PIP 99-0125	6/19/99	4/5/00	Pre 1999 discrepancy	4/24/00	UFSAR Change # 99-162
Dan Harrelson	6.2.2.2.4, 6.2.5, 9.4.6.3	Reed Severance	Clarify current testing practices for RBCUs and add references	PIP 98-3893	3/8/00	3/28/00	Pre 1999 discrepancy	4/5/00	UFSAR Change # 99-163
Louis Bohn	Table 4-3	Jay Verbos	Match table to the design documentation for cycle 1 core burnup.	PIP 98-5923	6/13/99		Pre 1999 discrepancy		UFSAR Change #99-164
Louis Bohn	4.2.3.1.1	Jay Verbos	More accurately describe the fuel rod gas press criterion as described in the BAW-10183P-A	PIP 98-5923	6/30/99		Pre 1999 discrepancy		UFSAR Change # 99-165
Louis Bohn	4.2.4.1	Rod Emory	Will make Unit 1 & 2 testing to be consistent with Unit 3 per BAW-10029A	PIP 98-5923	5/28/99	4/6/00	Pre 1999 discrepancy	4/6/00	UFSAR Change #99-166
Louis Bohn	4.3.2.4.4	Jay Verbos	To be consistent with the original SAR analysis.	PIP 98-5923	5/24/99		Pre 1999 discrepancy		UFSAR Change # 99-167
Louis Bohn	4.4.2.1	Steve Perrero	Provide a complete list of parameters for DNB in accordance with DPC-NE-2005P-A. This change was already completed in the 1998 Rev. VOID	PIP 98-5923	6/29/99	Void	Pre 1999 discrepancy	XXXXX	UFSAR Change # 99-168 (Void)
Louis Bohn	4.4.3.3.3	Steve Perrero	Provides a complete core bypass flowpaths in accordance with NFS-1001. This change was already made in the 1998 Rev. VOID	PIP 98-5923	5/7/99	Void	Pre 1999 discrepancy	XXXXX	UFSAR Change # 99-169 (Void)
Louis Bohn	4.4.4.1	Steve Perrero	Revises the historical summary of Rx vessel flow to match the test report.	PIP 98-5923	5/23/99	4/6/00	Pre 1999 discrepancy	4/17/00	UFSAR Change #99-170
Louis Bohn	4.2.2.1.1	Jay Verbos	Change to include the BK-B10L in the sentence that refers to Fig. 4-37.	PIP 98-5923	4/23/99		Pre 1999 discrepancy		UFSAR Change #99-171
Louis Bohn	4.3.2.5	Jay Verbos	Corrects the assumed rod group worth from 1.2% to 1.5% delta p.	PIP 98-5923	5/28/99		Pre 1999 discrepancy		UFSAR Change # 99-172
Louis Bohn	Table 4-1	Jay Verbos	Adds complete information on design parameters of fuel previously used in ONS core.	PIP 98-5923	6/11/99		Pre 1999 discrepancy		UFSAR Change # 99-173
Dan Harrelson	9.4.1.1	same	Revise temp limits for control rooms, cable rooms, & elec equipment rooms for consistency with calcs, DBD, & EQ manual.	PIP 99-3324 & ONOE-14658	4/12/00	4/12/00	Pre 1999 discrepancy	4/17/00	UFSAR Change # 99-174

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Markup Status per NSD 220									
Contributor	Section Number	Section Owner	Description of Change	Originating Source	Date Initiated	Date Approved	Date Impl.	To Publishing	Comments
Louis Bohn	Table 4-7 4.2.1.2.1, 4.3.1 4.3.2.4.4	Jay Verbos	Clarifies the applicability of the MTC limits and revises the most positive MTC limit.	PIP 98-5923	5/23/99		Pre 1999 discrepancy		UFSAR Change # 99-175
Jason Patterson	6.2.3.1, 7.5.2.20	same/Dempsey	Clarify that control room switches and indication are required for active containment isolation vlvs that are remotely controlled	PIP 98-3893	3/8/00	4/24/00	Pre 1999 discrepancy	4/25/00	UFSAR Change # 99-176
Marcus Nichol (G)	9.1.1	Perrero/Walden	Reflect temporary, operable but degraded, condition compensatory action to limit fuel enrichment in SFPs to 4.1% to maintain Keff < 0.95	OSC-7577 PIPs 00-969, 1247	3/20/00	4/17/00	Extended temp condition implemented March 2000	4/18/00	UFSAR Change # 99-177
Shane Klima	Chapter 2 Tables (26)	Doug Berkshire	Provides SF6 gas tracer test corrections to a series of Chapter 2 tables.	PIP 98-5923	3/28/99	4/27/00	Pre 1999 discrepancy	4/27/00	UFSAR Change # 99-178
Louis Bohn	4.5.2.6, 4.5.2.6	Rod Emory	Editorial Only	PIP 98-5923	5/24/99	2/27/00	Pre 1999 discrepancy	4/27/00	UFSAR Change # 99-179
	4.2.1.2.1, 4.2.2, 4.3.1 & 4.3.3.2	Gene Sanders Tom Wiggins	Clarifies the design bases of the Doppler coefficient & MTC.	PIP 98-5923	5/16/99		Pre 1999 discrepancy		UFSAR Change # 99-180
Stan Hayes (GO)	4.2.3, 5	same/Wiggins	Reflect use of new TACO3 code versus TACO2, indicate that approved fuel stress analysis methods have changed, and add new cladding corrosion limit.	NRC approved changes	1/4/00	5/9/00	1999 changes	5/10/00	UFSAR Change # 99-181
Stan Hayes (GO)	4.2.1, 2, 5, Table 4-23, Figs 4-2, 3, 4, 36, 37	same/Wiggins	Reflect description and acceptability of new Mk-B11 fuel.	OSC-7533, 6529	1/4/00	5/9/00	2000 changes	5/10/00	UFSAR Change # 99-182
Stan Hayes (GO)	15.14.5	same/Wiggins	Reflect description and acceptability of new M5 cladding.	NRC approved exemption & OSC-7533	1/4/00	3/23/00	2000 changes	5/10/00	UFSAR Change # 99-183
Shane Klima	Fig. 2- 25,27,28,29 &2-30	Doug Berkshire	Insert missing text under title of the figures. Added dates.	Editorial & PIP 98-5922	4/24/99	4/24/00	Pre 1999 discrepancy	4/24/00	UFSAR Change # 99-184
David Lee	10.4.7.2	Allen Park	Adds a cross-reference back to FSAR section 10.3.2.	Editorial & PIP 98-4062	6/26/99	4/24/00	Pre 1999 discrepancy	4/24/00	UFSAR Change # 99-185
Lesley Burns	9.1.4, Fig 9-7	Rod Emory	Remove aux fuel handling bridges on Units 1&2, upgrade power supplies and enhance mech design	NSMs 1,22914	7/1/99	4/24/00	1999 Modifications	4/25/00	UFSAR Change # 99-186

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					Markup Status per NSD 220				
Contributor	Section Number	Section Owner	Description of Change	Originating Source	Date Initiated	Date Approved	Date Impl.	To Publishing	Comments
David Lee	10.4.7.1	Allen Park	Provides consistency with other FSAR sections, Technical Specifications and design analyses.	PIP 98-4062	6/19/99		Pre 1999 discrepancy		UFSAR Change # 99-187
David Lee	10.4.1.4	Keith Anderson	Provides consistency with FSAR section 10.4.7.1.5 & design documents.	PIP 98-4062	6/8/99	4/25/00	Pre 1999 discrepancy	5/3/00	UFSAR Change # 99-188
David Lee	10.3.3	Scott Manning	Provide consistency section 10.3.3 description of the anticipatory reactor trip following a turbine trip.	PIP 98-4062	6/8/99	5/3/00	Pre 1999 discrepancy	5/3/00	UFSAR Change # 99-189
Tom Basler	9.5.1.4.4	Harold Lefkowitz	Updates to provide completeness with vendor doc. OM-0235A-76.	PIP 98-1986	5/28/99	5/8/00	Pre 1999 discrepancy	5/8/00	UFSAR Change # 99-190
Tom Basler	9.5.1.4.5	Harold Lefkowitz	Provides consistency with FSAR section 8.3.2.1.7.1 & better address lighting loads.	PIP 98-1986	6/11/99	5/1/00	Pre 1999 discrepancy	5/1/00	UFSAR Change # 99-191
Tom Basler	9.6.3.1	Ken Grayson	Provides consistency with design specifications OSS-0176.00-002, PRA licensing documentation and FSAR section 9.6.3.1. This has been VOIDED by owner	PIP 98-1986	6/18/99	VOID	Pre 1999 discrepancy	XXXXX	UFSAR Change # 99-192
Louis Bohn	9.6.3.4.2	Ken Grayson	Lists the generator overcurrent protective trip as not B/P when SSF diesel is in Emergency mode.	PIP 98-1986	6/18/99	5/4/00	Pre 1999 discrepancy	5/4/00	UFSAR Change # 99-193
Louis Bohn	7.5.2.37	Marlon Dempsey	Change the stated rupture disc pressure for consistency with the design documentation.	PIP 98-4055	6/19/99	4/26/00	Pre 1999 discrepancy	4/26/00	UFSAR Change # 99-194
Reza Khanpour	7.5.2.11 & 7.5.2.58	Marlon Dempsey	Provides consistency between FSAR 7.5.2.11 & 7.5.2.58 and EQML / OSC-2317 & 5248.	PIP 98-4055	6/29/99	4/26/00	Pre 1999 discrepancy	4/26/00	UFSAR Change # 99-195
Louis Bohn	7.5.2.23	Marlon Dempsey	Increases the Rx Build hi range monitors to match the design documentation.	PIP 98-4055	6/19/99	4/26/00	Pre 1999 discrepancy	4/26/00	UFSAR Change # 99-196
Shane Klima	Table 9-14	Ken Grayson	Provides correct information to Table 9-14 as described in the design documentation.	PIP 98-1986	5/28/99	5/4/00	Pre 1999 discrepancy	5/4/00	UFSAR Change # 99-197
David Lee	2.4.1.2	Brant Elrod	Consistency between section 2.4.1.2 and 2.4.2.2. And design drawings.	PIP 98-5922	5/28/99	4/28/00	Pre 1999 discrepancy	5/2/00	UFSAR Change #99-198
Tom Basler	13.2.5	Bentley Jones	To be consistent with the ETQS manual discussions of training record retention requirements.	PIP 98-5937	5/14/99	4/26/00	Pre 1999 discrepancy	4/26/00	UFSAR Change # 99-199

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Contributor	Section Number	Section Owner	Description of Change	Originating Source	Markup Status per NSD 220				Comments
					Date Initiated	Date Approved	Date Impl.	To Publishing	
	2.4.13.2.2 2.5.4.3	Brant Elrod Roy McCoy	Non-Technical Editorial.	PIP 98-5922	6/18/99	4/25/00	Pre 1999 discrepancy	4/25/00	UFSAR Change # 99-200
Dan Harrelson	6.5.1.3, 9.4.7.2, 9.4.8	same	Indicate that operation of PR-20 after an accident is not required because analysis has shown that charcoal ignition temps will not be reached.	PIPs 98-3893, 99-1729	4/25/00	4/25/00	Pre 1999 discrepancy	4/26/00	UFSAR Change # 99-201
Mike Leighton	5.2.3.2.1	same	Correct the configuration of the RCPS during normal cooldown.	License Amendments 300/300/300	4/26/00	4/26/00	Pre 1999 discrepancy	4/26/00	UFSAR Change # 99-202
Louis Bohn	4.5.3.1.1 Table 4-21	Rod Emory	Corrects the description of control rod drive speed to match existing CRDM design.	PIP 98-5923	5/28/99	4/27/00	Pre 1999 discrepancy	4/27/00	UFSAR Change # 99-203
Louis Bohn	Table 4-16	Rod Emory	Corrects the internals vent jack screw bushing material.	PIP 98-5923	6/11/99	4/27/00	Pre 1999 discrepancy	4/27/00	UFSAR Change # 99-204
Theresa Melter	2.1.1.3	Austin Burns	Reflect that access to owner controlled area is controlled by gates with card readers. Update Rod Ejection Accident	PIP 98-5938, CA#4	4/27/00	4/27/00	1999 change	4/27/00	UFSAR Change # 99-205
Frank Eppler	Table 15-16	Eppler/Swindlehurst	dose numbers to include both RB and secondary side releases.	OSC-7570	4/26/00	4/27/00	4/27/00	4/27/00	UFSAR Change # 99-206
Harry VanPelt	Table 15-16	Frank Eppler	Update Waste Gas Tank Rupture dose numbers	OSC-7566	4/26/00	5/2/00	Pre 1999 discrepancy	5/2/00	UFSAR Change # 99-207
Bob Gill	Chapter 18	multiple	Reserved - License Renewal	NRC approved	3/27/00	5/23/00	2001	5/23/00	UFSAR Change # 99-208
Bob Gill	18.3.19.2		Reserved - License Renewal		4/10/00	5/23/00	2001	5/23/00	UFSAR Change # 99-209
Austin Burns	3.8.1.1.1	same	Add new containment coatings info	NRC Commitment	4/6/00	4/6/00	4/6/00	5/9/00	UFSAR Change # 99-210
Bob Hester	9.1.5	same	Change calc ref to "Sloshing effect of water in SFPs"	editorial & PIP 98-2404	4/19/00	4/19/00	Pre 1999 discrepancy	5/1/00	UFSAR Change # 99-211
Henry Harling	9.2.2.1 Fig 9-10	Ron Harris	Fully reflect installation of Siphon Seal Water & ESV systems on Unit 1. Ref Change Pkg 98-64 for details.	NSM-12932	5/2/00	5/2/00	6/16/99	5/3/00	UFSAR Change # 99-212
John Beckman	Table 6-7, Fig 6-9	Jason Patterson	Install thermal pressure relief on RB penetrations (Also see Pkgs 99-15 & 50)	NSMs-1,2, 33043	5/2/00	5/3/00	1999/2000	N/A	UFSAR Change # 99-213
Albert Spear	7.7.5	same	Reflect that control cables and switchboard wiring meet flame test described in IEEE 383-1974. This change expands 99-04.	editorial & PIP 98-3895	8/2/99	5/4/00	Pre 1999 discrepancy	5/4/00	UFSAR Change # 99-214
Carol Naugle	4.4, Tables 4-1, 2, 14	Hayes/Wiggins	Incorporate Mk-B11 T-H design info and delete obsolete info about fuel designs no longer used in the reactors	OSC-7534	5/1/00	5/9/00	2000 changes	5/9/00	UFSAR Change # 99-215

FOR INFORMATION ONLY

OMP 4-1
ENCLOSURE 5.4
ACRONYMS AND ABBREVIATIONS

Absolute	Abs
Anticipated Transients Without Scram	ATWS
Accumulator	Accum
ATWS Mitigation System Actuation Circuitry	AMSAC
Acknowledge	Ack
Active	Act
Administration	Admin
Air circuit breaker	ACB
Air compressor	Air Comp
Air conditioner (ing)	A/C
Air handling unit	AHU
Alarm	Alm
Alternate	Alt
Alternating current	AC
Amperes	Amps
Approximate (ly)	≈ or - (Approx)
As Low As Reasonably Achievable	ALARA
Atmosphere	Atmos
Automatic	Auto
Auxiliary	Aux
*Auxiliary Instrument Air System	AIA
Auxiliary oil pump	AOP
Auxiliary service water	ASW
*Auxiliary steam system	AS
Auxiliary transformer	Aux Xformer
Average	Avg (av)
*Valve designator for that system	

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OMP 4-1

ENCLOSURE 5.4

ACRONYMS AND ABBREVIATIONS

Average temperature	T _{AVE} (Tave)
Backup	BKUP
Basement	BSMT
Battery	Batt
Battery charger	Batt chgr
Bearing	Brng
Bearing lift pump	BLP
Blanket	BLKT
Bleed	BLD
Bleed holdup tank	BHUT
Block	BLK
Block valve	Blk Vlv
Blower	BLWR
Borated water storage tank	BWST
Boric acid mix tank	BAMT
Boron 10	B ₁₀
Breaker	BKR (Bkr)
*Breathing air system	BA
British thermal unit	BTU
Building	Bldg
*Building spray system	BS
Bypass	BYP
Cabinet	CAB
Carbon dioxide	CO ₂
Carbon monoxide	CO
Center line	C _L

*Valve designator for that system

OMP 4-1
ENCLOSURE 5.4
ACRONYMS AND ABBREVIATIONS

Change	Chng (chg)
Channel	CH
Charger	chgr
Check valve	CHK VLV
Chemical	Chem
*Chemical addition system	CA
Chloride	Cl
Circuit	CKT
Circulating	Circ
Closed	CLSD
Column	COL
*Component cooling system	CC
Compressor	Comp
Computer	Comptr
Concentrate	Conc
Concentrated boric acid storage tank	CBAST
Condensate booster pump	CBP
Condensate monitor tank	CMT
Condensate steam air ejector	CSAE
Condensate storage tank	CST
*Condensate system	C
Condensate test tank	CTT
*Condenser circulating water system	CCW
Conductivity	Cond
Containment	CONT
Control	CTRL
*Valve designator for that system	

OMP 4-1
ENCLOSURE 5.4
ACRONYMS AND ABBREVIATIONS

Control rod drive	CRD
Control rod drive mechanism	CRDM
Control Room	CR
Control valve	CV
Coolant	CLNT
*Coolant storage system	CS
*Coolant treatment system	CT
Cooldown Procedure	CP
Cooler	CLR
Cooling	CLNG
Core exit thermocouples	CETCs
*Core flood system	CF
Core flood tank	CFT
Correction	CORRT
Corridor	CORRD
Counts per minute	CPM
Counts per second	CPS
Crisis Management Center	CMC
Crossconnect	XCONN
Crossover	X-OVER
Cubic feet	ft ³
Cubic feet per minute	cfm
Current transformer	CT
Damper	Dmpr

Dater

OMP 4-1
ENCLOSURE 5.4
ACRONYMS AND ABBREVIATIONS

Decades per minute	DPM
Decay heat removal	DHR
Decontamination (ate)	Decon
Degree	Deg
Degrees Centigrade	°C (Deg C)
Degrees Fahrenheit	°F (Deg F)
Dehumidifier	Dehum
Delta	Δ
*Demineralized water system	DW
Demineralizer	Demin
Desuperheater	Desuphr
Detector	Det
Diameter	Dia
Diesel generator	DG (D/G)
Differential	DIFF
Differential pressure	ΔP (D/P)
Direct current	DC
Discharge	Disch
Diverse Scram System	DSS
Dose Equivalent Iodine	DEI
Double pole double throw	DPDT
Double pole single throw	DPST
Down	DWN
Downcomer	DNCR
Drain valve	Drn Vlv
Drawing	DWNG (DWG)

*Valve designator for that system

OMP 4-1
ENCLOSURE 5.4
ACRONYMS AND ABBREVIATIONS

Dry Storage Canister	DSC
Effluent	EFF
Electrical	ELEC
Electro hydraulic control	EHC
*Electro hydraulic control system	HO
Elevated water storage tank	EWST
Elevation	ELEV
Emergency	EMER
Emergency bearing oil pump	EBOP
Emergency core cooling systems	ECCS
Emergency feedwater	EFDW
Emergency feedwater pump	EFDWP
Emergency feedwater pump turbine	EFDWPT
Emergency power switching logic	EPSL
Emergency seal oil pump	ESOP
Enclosure	Encl
Engineering safeguards	ES
Engineering safety feature actuation system	ES (ESFAS)
Equipment	Equip
Evacuation/ate	EVAC
Evaporator	EVAP
Exchanger	EXCHNGR
Exhaust	Exh
Exhauster	EXHTR
Expansion	EXPN
Expansion joint	EXPJT

*Valve designator for that system

OMP 4-1
ENCLOSURE 5.4
ACRONYMS AND ABBREVIATIONS

Extended SG SU Range

External

Feeder

Feedwater pump

Feedwater pump turbine

*Feedwater system

Feet

Feet per second

Filter

*Fire hydrant system

First, second, third

First stage reheater

First stage reheater drain tank

Flow transmitter

Forced draft fan

Forward

Frequency

Fuel Assembly

*Fuel oil system

Full Power

Gallon

Gallons per hour

Gallons per minute

*Gaseous waste disposal system

Gaseous waste disposal tank

Gaseous waste release

*Valve designator for that system

XSUR

EXT

FDR

FDWP (FWP)

FDWPT

FDW

ft (')

fps

FLTR

FH

1st, 2nd, 3rd,
etc

FSRH

FSRHDT

FT

FD FAN

FWD

FREQ

FA

FO

FP

gal

gph

gpm

GWD

GWD TK

GWR

TOMP 4-1
ENCLOSURE 5.4
ACRONYMS AND ABBREVIATIONS

Generator	GEN (Gen)
Governor	GOV
Governor valve	GOV VLV
Ground	GND
Header	HDR (Hdr)
Heater	HTR
Heater drain pump	HDP
*Heater drains system	HD
*Heater vent system	HV
Heating, ventilation and air conditioning	HVAC
High	HI
High activity waste tank	HAWT
High efficiency particulate air	HEPA
*High pressure extraction system	HPE
High pressure injection pump	HPIP
High pressure injection system	HPI
*High pressure injection system	HP
*High pressure service water system	HPSW
High range	HR
Holdup	HU
Horizontal	Horiz
Horizontal Storage Module	HSM
Hotwell	HW
Hotwell pump	HWP
Hour	Hr
Hydraulic	HYDR
*Valve designator for that system	

OMP 4-1
ENCLOSURE 5.4
ACRONYMS AND ABBREVIATIONS

Hydrazine	NH ₄
Hydrogen	H ₂
Hydrogen ion concentration	pH
*Hydrogen system	H
Inactive	IN/ACT
Inadequate Core Cooling	ICC
Inadequate Core Cooling Monitor	ICCM
Inboard	I/B
Inch	in.
Inches of water	in. H ₂ O
Inches of mercury	in Hg
Incore Thermocouples	CETC
Incorporated	INC
Independent Spent Fuel Storage Installation	ISFSI
Indication & Control	IC
Inhibit	INHIB
Injection	INJ
Inlet	INLT
Instrument	INST
*Instrument air system	IA
Instrument and Electrical Department	I&E
Instrument Root Valve	IRV
Insulation	INSUL
Integrated Control System	ICS
Integrated Leak Rate Test	ILRT
Interim rad waste	IRW

*Valve designator for that system

OMP 4-1
ENCLOSURE 5.4
ACRONYMS AND ABBREVIATIONS

Intermediate Range neutron detector	IR
Inverter	INVTR
Ion exchanger	IX
Irradiated Fuel Assembly	IFA
Isolation (ate) (ed)	Isol (ISOL)
Junction	JCT
Kilovolt	kV
Kilovolt-ampere	kVA
Kilovolt-ampere reactive	KVAR
Kilowatt	kW
Kilowatt-hour	kWH
Laundry and hot shower tank	LHST
Lead	Pb
*Leak rate test system	LRT
Letdown	L/D
Letdown storage tank	LDST
Level	LVL
Level transmitter	LT
Limiting Condition of Operation	LCO
Liquid	LIQ
*Liquid waste disposal	LWD
Liquid waste release	LWR
Lithium hydroxide	LiOH
Load center	LDCTR (LC)
Load frequency control	LFC
Locked closed	L.C.

*Valve designator for that system

OMP 4-1
ENCLOSURE 5.4
ACRONYMS AND ABBREVIATIONS

Locked open	L.O.
Loss of coolant accident	LOCA
Low activity waste tank	LAWT
*Low pressure extraction system	LPE
Low pressure injection	LPI
Low pressure injection pump	LPIP
*Low pressure injection system	LP
*Low pressure service water	LPSW
Low Range	LR
Lube oil purifier	LOP
Main Computer	MC
Main feeder bus	MFB
Main feeder bus monitoring panel	MPBMP
Main feedwater	MFDW
Main feedwater pump	MFDWP
Main seal oil pump	MSOP
*Main steam	MS
Main steam control valve	MSCV
Main steam intercept valve	MSIV
Main steam relief valve	MSRV
Main steam stop valve	MSSV
Main Turbine	MT
Main turbine oil tank	MTOT
Make up	M/U
Manual	MAN
Maximum	MAX

*Valve designator for that system

OMP 4-1
ENCLOSURE 5.4
ACRONYMS AND ABBREVIATIONS

Maximum Permissible Concentration	MPC
Mechanical	MECH
Megavolt ampere reactive	MVAR
Megawatt	MW
Megawatt electrical	MWe
Megawatt thermal	MWt
Mezzanine	MEZZ
Microcuries per milliliter	$\mu\text{Ci/ml}$
Minimum	MIN
Minute	Min
Miscellaneous	Misc
Miscellaneous waste holdup tank	MWHUT
Moisture separator drain tank	MSDT
Moisture separator drain pump	MSDP
Moisture separator reheater	MSRH
Moisture separator reheater drain tank	MSRHDT
Monitor	MON
Motor	MTR
Motor control center	MCC
Motor driven emergency feedwater pump	MD EFDWP
Motor gear unit	MGU
Motor operated	MO
Motor operated disconnect	MOD
Motor operated valve	MOV
Motor speed changer	MSC
Mulsifyre	MLSFYR
Narrow range	NR

*Valve designator for that system

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ACRONYMS AND ABBREVIATIONS

Negative	Neg
Net positive suction head	NPSH
Neutral	NEUT
Nil ductility temperature	NDT
Nitrogen	N ₂
*Nitrogen system	N
Non Licensed Operator	NLO
Non-Nuclear Instrumentation	NNI
Normally	Norm
Normally closed	N.C.
Normally open	N.O.
Nuclear instruments	NI
Nuclear Policy Manual	NPM
Oconee Nuclear Station	ONS
Oil circuit breaker	OCB
Oil lift pump	OLP
Operate	Oper
Operating Range	OR
Operations	Ops
Operations Management Procedure	OMP
Operations Support Center	OSC
Operator aid computer	OAC
Outboard	O/B
Outlet	OTLT
Overflow	OVF
Overhead	OVHD

*Valve designator for that system

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Overload	OVLD
Oxygen	O ₂
Package	PKG
Panel	PNL
Panel board	PNLBD
Particulate, absolute, charcoal filter	PAC filter
Parts per billion	ppb
Parts per million	ppm
Parts per million boron	ppmb
Penetration	Pen(t)
Penetration room	Pen(t) Rm
Penetration room ventilation	PRV
*Penetration room ventilation system	PR
Phase	ø
*Plant heating steam system	PH
Pneumatic	PNEU
Pneumatic circuit breaker	PCB
Polishing	POL
Polishing demineralizer system	POWDEX
Position	POSN
Positive	POS
Potential	Pot
Potential transformer	PT
Pounds mass per hour	lbm/hr
Pounds per hour	LB/HR (lb/hr)
Pounds per square inch	psi

*Valve designator for that system

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Pounds per square inch absolute	psia
Pounds per square inch differential	psid
Pounds per square inch gauge	psig
Power	PWR
Power factor	PF
Power operated relief valve	PORV
Power range	PR
Power supply	PS
Pressure	Press
Pressure & Temperature	P/T
Pressure gauge	PG
Pressure transmitter	PT
Pressurizer	PZR
Preventative maintenance	PM
Primary	PRI
Problem Investigation Report	PIR
Public address system	PA
Pump	pmp (P)
Purge	PRG
Purifier (cation)	Purif
Quality assurance	QA
Quantity	QTY
Quench tank	QT
Radial	RADL
Radiation monitor	RIA

*Valve designator for that system

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Radiation Protection	RP
Radioactive Waste Facility	RWF
Reactor	RX
Reactor building	RB
Reactor building cooling unit	RBCU
Reactor building normal sump	RBNS
Reactor building spray	RBS
Reactor building vent	RBV
Reactor coolant average temperature	T_{ave} (Tave)
Reactor coolant bleed holdup tank	RC BHUT
Reactor coolant cold leg temperature	T_c
Reactor coolant hot leg temperature	T_h
Reactor coolant inventory monitoring system	RCIMS
Reactor coolant makeup	RCMU
Reactor coolant pump	RCP
Reactor coolant system	RCS
*Reactor coolant system	RC
Reactor Operator	RO
Reactor protective system	RPS
Reactor vessel	RXV
Reactor vessel level instrumentation system	RVLIS
Recirculating (ate)	Recirc
*Recirculating cooling water system	RCW
Recirculating seal oil pump	RSOP
Recorder	RCDR
Rectifier	Rect
*Valve designator for that system	

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Reference	Ref
Reflash	R/F
Refrigeration	Refrig
Regenerative	REGEN
Reheat stop valve	RSV
Reheater	RHTR
Relay	RLY
Relief valve	RV
Required	REQD
Resistance temperature detector	RTD
Return	RTN
Revision	REV
Revolutions per minute	RPM
Room	Rm
Sample	SMPL
Saturation pressure	P_{sat}
Saturation temperature	T_{sat}
Schematic	SCHEM
*Seal oil system	SO
Seal oil vacuum pump	SOVP
Second	Sec
Second stage reheater	SSRH
Second stage reheater drain tank	SSRHDT
Secondary	SEC
Section	SECT

*Valve designator for that system

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ACRONYMS AND ABBREVIATIONS

Senior Reactor Operator	SRO
Sequence	SEQ
*Service air system	SA
Shield wall	SH
Shielding	SHLD
Shut down	SD
Single pole double throw	SPDT
Single pole single throw	SPST
Small break loss of coolant accident	SBLOCA
Source range neutron detector	SR
Spare	SPR
*Spent fuel cooling system	SF
Spent fuel pool	SFP
Spent resin storage tank	SRST
Standard cubic centimeter per minute	SCCM
Standard cubic feet per minute	SCFM
Standard cubic feet per second	SCFS
Standby	Stby
Standby Shutdown Facility	SSF
Start up	SU
Startup range	SUR
Stator	STATR
*Stator coolant system	SC
Stator cooling water	SCW
Stator cooling water pump	SCWP
*Valve designator for that system	

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Steam	Stm
*Steam drain system	SD
Steam generator	SG
Steam generator (restricted usage)	OTSG
Steam generator Operating Range level	O.R.
Steam generator tube rupture	SGTR
Steam packing exhausts	SPE
*Steam seal system	SSH
Stop valve	SV
Strainer	STRNR
Structure	STRUCT
Subcooling margin	SCM
Suction	SUCT
Superheater	Suphtr
Switch	SW
Switch board	SWBD
Switch gear	SWGR
Switch yard	SWYD
Synchronize	SYNC
System	SYS
Tank	Tk
Technical Specifications	T.S. (Tech Specs)
Technical Support Center	TSC
Temperature	Temp (T)
Temperature change	ΔT

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Temperature transmitter	TT
Thermal shock operating region	TSOR
Thermocouple	TC (T/C)
Thrust	THR
Transfer	Xfer
Transformer	Xformer
Transmitter	Xmitter
Tritium	H ₃
Trouble	TRBL
Turbine	Turb
Turbine building	Turb Bldg (TB)
Turbine building sump	TBS
Turbine bypass valves	TBVs
Turbine driven EFDWP	TD EFDWP
Turbine generator	Turb Gen (T/G)
*Turbine lube oil system	TO
Turning gear	TG
Turning gear oil pump	TGOP
Unbalanced	UNBAL
Under voltage	UV
Uninterrupted Power Source	UPS
Upper surge tank	UST
Vacuum	Vac
Vacuum Drying System	VDS
*Vacuum system	V
*Valve designator for that system	

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ACRONYMS AND ABBREVIATIONS

Valve	Vlv (VLV)
Ventilation	Vent
Vibration	Vib
Volt	v
Volt ampere	VA
Volt ampere reactive	VAR
Voltage alternating current	VAC
Voltage direct current	VDC
Voltage regulator	VREG
Volume	Vol
Waste disposal	WD
Waste gas filter	WG filter
Waste monitor	WM
Water	WTR (H ₂ O)
Wide range	WR
Winding	WDNG
Withdrawal	WITHDRWL

*Valve designator for that system