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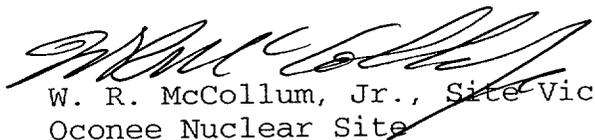
U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

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, 2001, and December 31, 2001. This report is submitted pursuant to the requirement of 10 CFR 50.59 (d) (2).

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

Very truly yours,


W. R. McCollum, Jr., Site Vice President
Oconee Nuclear Site

Attachment

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I. NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: Condensate

NSM ON-12981/0 (Parts AL1, AL2, AK1, AM1) upgraded the Polishing Demineralizer Flow Balance and Powdex Cell Precoat control systems with more modern, reliable electronic components. The existing systems contain obsolete pneumatic and electromechanical components. The modification affects the condensate polishing demineralizer system, which is also referred to as the Powdex System. The modification replaced the outlet flow control valve, actuator, and positioner for each Powdex cell. The existing cell controllers and the master controller are replaced with a Programmable Logic Controller (PLC). The PLC consists of a "hot stand-by" controller that will assume control should the primary controller fail. There are two Man-Machine Interface (MMI) units for display of various Powdex functions which allows the operators to view two different screens at the same time.

SAFETY EVALUATION SUMMARY

This change does not create any conditions or events that lead to accidents previously evaluated in the SAR. The Powdex System is not an accident mitigation system. The modification does not change the existing design basis of the Powdex System. Thus, the probability of a loss of the condensate or the main feedwater systems is not increased. There is no adverse effect on containment integrity and no new release paths are created. The replacement of the Powdex Control System and instrumentation will not change the function of the Powdex/Condensate system. Critical interlocks and basic functions will remain the same. The new electrical components and associated cabling meet applicable 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. This modification involves no USQs or safety concerns. No UFSAR, technical specification, or SLC changes are required.

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: EFW

NSM ON-13058 modified the Main Steam Line Break (MSLB) Detection circuitry to enable the system components to be tested while the unit is on-line and to enable a channel to be easily placed in a tripped condition. In addition, wiring inside the MSLB Detection cabinet was modified to provide appropriate electrical separation and the power fuses for the MSLB control circuitry replaced with a higher current fuse. NSM ON-13058 provides the Unit 1 MSLB detection analog channels with on-line test circuits to functionally verify operation of the MSLB detection circuitry. The modification will accomplish this by installing an on-line test panel for the MSLB analog channels. In addition, a manual trip key switch will be installed in the MSLB trip logic to provide a means of complying with Technical Specification Section 3.3.11 Condition A in a shorter time.

SAFETY EVALUATION SUMMARY

This modification does not involve any unreviewed safety questions (USQs) or safety concerns. No Technical Specification changes are required. A description of the MSLB Detection and Feedwater Isolation Circuitry will be added to the UFSAR as new Section 7.9. All circuit changes and new equipment installed have the appropriate QA classification and separation requirements. A failure modes and effects analysis was performed which concludes that the MSLB Detection circuitry is capable of performing all safety functions following a single failure during on-line testing. All aspects of the modification, with the exception of the OAC points are QA-1. Proper isolation is maintained between QA-1 and nonsafety-related circuits. Equipment was evaluated for QA-4 seismic interaction. Proper electrical separation for the conductors affected by this modification will be maintained. No failure modes other than those addressed in the FMEA were determined to exist. The ability of the FDW and EFW Systems to perform their design functions of providing feedwater to the steam generators is not adversely affected. UFSAR Section 7.9 was revised accordingly. (Pkg. 01-45)

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: Main Steam

NSM ON-23018 modifies the Main Steam Turbine Stop Valve Channel B 15 second closure circuit by rewiring the circuitry so that it will continue to actuate on a Reactor Trip as originally designed but will now achieve the Tech Spec. closure criteria from full open to full close in less than or equal to 1 second. The change includes rewiring the Main Steam Stop Valve test solenoid circuitry so that the fast acting solenoid valves (formerly actuated by a limit switch when the valve had traveled 90% in the closed direction) are actuated immediately when the signal is received from the CRD System Reactor Trip confirm logic. The circuit will also be wired so that the existing time delay is still maintained when the test button(s) are depressed.

SAFETY EVALUATION SUMMARY

NSM ON-23018 modifies the Main Steam Turbine Stop Valve Channel B 15 second closure circuit by rewiring the circuitry so that it will continue to actuate on a Reactor Trip as originally designed but will now achieve the Tech Spec. closure criteria from full open to full close in less than or equal to 1 second. The QA- classification for the affected components is QA-5. Therefore, the interposing relays being added are not purchased under the 10CFR 50 Appendix B program but will be installed and maintained under the 10 CFR 50 Appendix B program. Technical Specifications change will accurately reflect the new designed closure time for the Channel B Turbine Stop. The Bases of Tech. Spec. 3.3.15 and 3.7.2 will also be revised at that time to reflect the new closure time for this Channel. No UFSAR or SLC changes are required.

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: Main Steam

NSM ON-33018 modifies the Main Steam Turbine Stop Valve Channel B 15 second closure circuit by rewiring the circuitry so that it will continue to actuate on a Reactor Trip as originally designed but will now achieve the Tech Spec. closure criteria from full open to full close in less than or equal to 1 second. The change includes rewiring the Main Steam Stop Valve test solenoid circuitry so that the fast acting solenoid valves (formerly actuated by a limit switch when the valve had traveled 90% in the closed direction) are actuated immediately when the signal is received from the CRD System Reactor Trip confirm logic. The circuit will also be wired so that the existing time delay is still maintained when the test button(s) are depressed.

SAFETY EVALUATION SUMMARY

NSM ON-33018 modifies the Main Steam Turbine Stop Valve Channel B 15 second closure circuit by rewiring the circuitry so that it will continue to actuate on a Reactor Trip as originally designed but will now achieve the Tech Spec. closure criteria from full open to full close in less than or equal to 1 second. The QA- classification for the affected components is QA-5. Therefore, the interposing relays being added are not purchased under the 10CFR 50 Appendix B program but will be installed and maintained under the 10 CFR 50 Appendix B program. Technical Specifications change will accurately reflect the new designed closure time for the Channel B Turbine Stop. The Bases of Tech. Spec. 3.3.15 and 3.7.2 will also be revised at that time to reflect the new closure time for this Channel. No UFSAR, or SLC changes are required.

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: Main Steam

NSM ON-33067 Main Steam system valves are replaced with Duke Class "B" QA-1 gate valves, with flow capability verified by the vendor. The valve operators are also replaced with QA-1 operators. Six (6) of these valves required upgrading the actuator to close these valves at the higher differential pressures in an acceptable time frame. Valve control circuits are functionally the same before and after valve replacement with the exception of valves 3MS-24 and 3MS-33. These two valves have a control circuit change from limit switch close to torque switch close.

SAFETY EVALUATION SUMMARY

Replacing these valves reduces the possibility of motor burnout which could result from an operator attempting to close these valves during a design basis event at high differential pressures. The valve could not be subsequently closed when pressures had decayed. At present (to facilitate steam pressure decay), the main and emergency feedwater pumps are to be tripped for a downstream pipe break, allowing the affected steam generator to boil dry. All replacement valves and operators are QA Condition 1, Duke Class "B". QA-1 power is NOT required for the operators. The valve operators are powered from non-QA motor control centers (MCCs). The statement from UFSAR, Section 10.3.2, quoted above is not changed by this modification, although the new valves are able to close at a higher differential pressure than the replaced valves. This modification involves no USQs or safety concerns. There are no UFSAR, Technical Specification, or SLC revisions resulting from this modification.

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: Keowee

NSM ON-53052 Part AL1 is to replace Keowee's auxiliary power loadcenter breakers with new Westinghouse DB breakers that utilize the original "X" relay scheme. There are 8 breakers used for the Keowee Unit 2 auxiliary power loadcenter 2X that are to be replaced. The breakers used for the auxiliary power loadcenter 2X that are to be replaced are Westinghouse Type DB-50 breakers designated as 2X1B, 2X3B, & 2X3C (spare) and Westinghouse Type DB-25 breakers designated as 2X1C (spare), 2X2A, 2X2B, 2X2C, & 2X2D.

SAFETY EVALUATION SUMMARY

There are no new safety/non-safety electrical interfaces. The power sources are adequate for the new components. 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 seismically qualified cabinets that have components changed in them are still seismically qualified after the changes are made. The new components do not cause any seismic interaction concerns between non-seismic and seismic structures, systems, and components. The breaker replacement does not cause any adverse effects to the rest of the plant. The new components are qualified for their environment. An electrical 10 CFR 50 Appendix R fire review was completed for the design phase. This modification involves no USQs or safety concerns. No UFSAR or technical specification changes are required.

NUCLEAR STATION MODIFICATIONS

DESCRIPTION

SYSTEM: Keowee

NSM ON-53065, Installation of the new underground power path modification replaced six each 13.8kV Emergency Power cables (three to each of Keowee ACBs 3 and 4), three each 4 kV Auxiliary Power cables to Keowee transformer CX, and a one for one installation of backup Supervisory and Control cables.

SAFETY EVALUATION SUMMARY

This modification involves no USQs. No Technical Specifications or SLC changes are required. Changes are required to UFSAR Sections 3.2.1.1.1 (to add cable trench to list of Class 1 structures), 8.3.1.4.6.2 (to add "metallic taped" to the list of metallically armored and protected cable systems), 9.5.1.4.2 (to add "Hypalon" as an acceptable jacket material for power and control cables) and 9.5.1.4.3 (to add an exception of the Keowee underground cable from being a three conductor power cable, to add "Hypalon" as an acceptable jacket material for conductors and to add two paragraphs concerning details of the composition of the Keowee underground single conductor power cables).

The new control cables installed by this modification are for future application should the existing control cables fail or be found to be degraded. This evaluation does not address inclusion of the new control cables into operating circuits. Connection of these control cables to control circuits would be addressed by separate evaluation at such time that their use is required.

(Pkg. 01-28)

II. MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: Low Pressure Injection

Minor Modifications ONOE-15288 and ONOE-15289 replaced the motor operators of the existing valves (2LP-17 and 2LP-18) with Rotork 90NA1-29 motor operators.

SAFETY EVALUATION SUMMARY

The Safety Review evaluated that ONOE-15288/ONOE-15289 (valve operator replacement) will enhance the control room Operator's ability to throttle LPI flow during the system's normal and event mitigation design and safety function. This modification involves no USQs. No changes to the technical specifications are required. Tech Spec 3.5.3 bases, UFSAR Section 15.14.3.3.6, 6.3.3.2, 6.3.3.3, Figures 6-1 and 9-19 were revised accordingly.

MINOR MODIFICATION (ONOE's)

DESCRIPTION

SYSTEM: Reactor Building Containment

Minor modifications ONOE-12466 and ONOE-12467 will modify the actuators on IBS-1 and IBS-2 (BS header isolation valves) by installing new gears. The overall gear ratio will be changed from 42.5:1 to 56.64:1. This will slow down the stroke of these valves from their current stroke time of 12 seconds to a new stroke time of 16 seconds.

SAFETY EVALUATION SUMMARY

The majority of changes to OSS-0254.00-00-4001 were performed to simply reflect as-built station policies, programs, and plant conditions. The only change affecting as-built station policies, programs, and plant conditions involved the revised scope of penetrations requiring Type C LLRTs. The basis for requirements of performing Type C LLRTs was revised to reflect a changed station interpretation of current codes and standards. The documentation of why (or why not) certain penetrations are required to be Type C LLRT was revised to reflect the change in interpretation of code requirements. This activity does not create an Unreviewed Safety Question, and therefore is permitted by the regulations of 10CFR50.59. A license amendment is not required. No changes to the Technical Specifications are required. No UFSAR changes are required as a result of this activity.

MINOR MODIFICATION (ONOE's)

DESCRIPTION

SYSTEM: Spent Fuel Cooling (SF)

Minor modification ONOE-12848 replaces all the obsolete type CY motor starters in safety related motor control center (MCC) 2XS2 with an equivalent type TM motor starter.

SAFETY EVALUATION SUMMARY

This procedure for the replacement and documentation of C-Y starters in Oconee UNIT 2 MCC 2XS2 does not create an Unreviewed Safety Question. No changes to the SAR documents are required. The NRC approval letter states that appropriate changes to the Core Operating Limits Report (COLR) and the Selected Licensee Commitments (SLC) are to be implemented concurrently with implementation of the ITS amendments. Approved SLC changes issued 7/18/00 as well as current SLCs were reviewed and no revisions are needed.

This procedure for the replacement and documentation of C-Y starters in Oconee UNIT 2 MCC 2XS2 does not create an Unreviewed Safety Question. No changes to the SAR documents are required. The NRC approval letter states that appropriate changes to the Core Operating Limits Report (COLR) and the Selected Licensee Commitments (SLC) are to be implemented concurrently with implementation of the ITS amendments.

MINOR MODIFICATION (ONOE's)

DESCRIPTION

SYSTEM: Oconee Unit 1 7KV startup

Minor Modification ONOE-14513 replaced the following relays in Transfer Control Panel 1TCPA.

SAFETY EVALUATION SUMMARY

The new relay will perform the same control function and provide the same power system protection as the existing relays. The initiating cause for the protective relay replacement is the discovery of a green liquid seeping from the internal wiring of some relays. This green liquid has the potential to coat the relay contacts and disable the relay's protective function. A laboratory analysis was performed by another utility and the green liquid substance was identified as a "vegetable oil plasticizer", which is present in the composition of the cable's PVC insulation. The analysis indicated that the green substance is a conductor in liquid form, but when dried, may either be a conductor or an insulator, depending on the amounts of copper oxide salts present. A design review has determined this replacement will not result in any new types of electrical failures, which require analysis for the UFSAR. It will improve the station's reliability during an earthquake in preventing the loss of the Oconee Unit 1 7KV startup feed to 1TA and 1TB switchgear. The relay is to be seismically mounted to ensure that it functions during and after a seismic event. Oconee Unit 1 7KV startup feed to 1TA and 1TB switchgear is not part of the 10CFR50 Appendix R Review and is not used by the Standby Shutdown System. This modification involves no Unresolved Safety Questions or safety concerns. No Technical Specifications changes are required. UFSAR Figure 8-3 was revised to reflect the new relay model numbers. (Pkg. 01-03)

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: Operator Aid Computer (OAC)

Minor Modification ONOE-15253 installed RTDs in the Unit 2 Cable Room and Electrical Equipment Room. These RTDs provide data to the Operator Aid Computer (OAC) so that the Cable Room and Electrical Equipment Room temperatures can be verified by the CRO as required by Tech. Spec. 3.7.16. The OAC will record temperature data and provide an alarming function.

SAFETY EVALUATION SUMMARY

Tech Spec surveillance SR 3.7.16.1 requires that the Cable and Electrical Equipment Room temperatures are monitored and documented every 12 hours. PIP O 99-04012 was written to document that these surveillance limits were exceeded. The primary cause associated with this incident was determined to be the fact that the readings required to satisfy the surveillance are not available in the control room. The new components are environmentally qualified for their environment. The applicable design and protective features for the control area air conditioning and ventilation systems in UFSAR Sections 3.11.5, 8.3.2.2.4 and 9.4.1 are maintained. Electrical separation criteria and component specifications, as specified in UFSAR Sections 8.3.1.4 & 8.3.1.5 are maintained. An electrical 10 CFR 50 Appendix R fire review was completed for the design phase. There are no new safety/non-safety interfaces.

This elective minor modification and its implementation involves no USQs or safety concerns. This activity does not require a change to Technical Specifications nor the UFSAR. The Bases for TS 3.7.16 and SR 3.7.16.1 were changed.

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: Operator Aid Computer (OAC)

Minor Modification ONOE-15254 installed RTDs in the Unit 3 Cable Room and Electrical Equipment Room. These RTDs provide data to the Operator Aid Computer (OAC) so that the Cable Room and Electrical Equipment Room temperatures can be verified by the CRO as required by Tech. Spec. 3.7.16. The OAC will record temperature data and provide an alarming function.

SAFETY EVALUATION SUMMARY

Tech Spec surveillance SR 3.7.16.1 requires that the Cable and Electrical Equipment Room temperatures are monitored and documented every 12 hours. PIP O 99-04012 was written to document that these surveillance limits were exceeded. The primary cause associated with this incident was determined to be the fact that the readings required to satisfy the surveillance are not available in the control room. The new components are environmentally qualified for their environment. The applicable design and protective features for the control area air conditioning and ventilation systems in UFSAR Sections 3.11.5, 8.3.2.2.4 and 9.4.1 are maintained. Electrical separation criteria and component specifications, as specified in UFSAR Sections 8.3.1.4 & 8.3.1.5 are maintained. An electrical 10 CFR 50 Appendix R fire review was completed for the design phase. There are no new safety/non-safety interfaces.

This elective minor modification and its implementation involves no USQs or safety concerns. This activity does not require a change to Technical Specifications nor the UFSAR. The Bases for TS 3.7.16 and SR 3.7.16.1 were changed.

MINOR MODIFICATION (ONOE's)

DESCRIPTION

SYSTEM: Reactor Building Spray (BS)

Minor Modifications ONOE-15292 and ONOE-15293 will modify the actuators on 2BS-1 and 2BS-2 (BS header isolation valves) by installing new gears. The overall gear ratio will be changed from 42.5:1 to 56.64:1. This will slow down the stroke of these valves from their current stroke time of 12 seconds to a new stroke time of 16 seconds. These modifications also installed new spring packs to increase the thrust output of the actuators.

SAFETY EVALUATION SUMMARY

This activity involves the change in gear ratio and spring packs on the BS header isolation valves electric motor operators. The net effect of the change will be to slow down the actuators so that the valve stroke time will increase to approximately 16 seconds from its current value of approximately 12 seconds. No fission product barriers are affected. No plant operating procedures nor test procedures are affected. There is no impact upon safety analyses or dose calculations. The changes will enhance the expected performance of the Reactor Building Spray system by increasing stem thrust on these valves, thus increasing their margin with respect to meeting the requirements of GL 89-10.

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: Penetration Room Ventilation System (PRVS)

Minor Modification ONOE-15384 sealed off the ductwork exhaust louvers in the Purge Exhaust Equipment Room. Sealing off the exhaust louvers will enable the Penetration Room Ventilation System to maintain a negative pressure in the Penetration Room with respect to the Purge Exhaust Equipment Room.

SAFETY EVALUATION SUMMARY

The test results in TT/3/A/0110/023 show that sealing the louvers in the Purge Exhaust Equipment Room raised the room pressure enough to allow the Unit 3 PRVS to maintain a negative pressure in the Penetration Room with respect to the Purge Exhaust Equipment Room.

Minor Modification ONOE-15384 involved no USQs or safety concerns. There are no Technical Specification or Selected License Commitments changes associated with this minor modification. UFSAR Figure 9-28 was reviewed and it does not show a direct exhaust path from the Purge Exhaust Equipment Room to the exhaust fans F3-4, F3-5, and F3-6. This modification does not adversely affect plant safety limits, set points, or design parameters. This modification does not adversely affect the function of the Penetration Room Ventilation System or the Control Room Ventilation System.

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: Borated Water Storage Tank (BWST)

Minor Modification ONOE-15735 removed the Engineered Safeguard signal to valve 3LP-21 (3A BWST OUTLET ISOL VLV).

Minor Modification ONOE-15736 removed the Engineered Safeguard signal to valve 3LP-22 (3B BWST OUTLET ISOL VLV).

SAFETY EVALUATION SUMMARY

This Modification involved no Unreviewed Safety Question and was performed under the regulations of 10CFR50.59. No changes to the Technical Specifications are required. Tech Spec Bases 3.5.3 was modified to add a statement that the ES signal has been removed from 3LP-21 and 3LP-22. Chapter 6, Section 6.3.2.2.2, Figures 6-1 and 6-2, Table 6-11, Chapter 7, Table 7-3, and Chapter 9, Figure 9-19 were changed to show the removal of the automatic feature of 3LP-21 and 3LP-22 to open on an ES signal.
(Pkg. 01-35 and 01-36)

MINOR MODIFICATION (ONOE's)

DESCRIPTION

SYSTEM: Low Pressure Injection (LPI)

Minor Modification ONOE-15894 was performed to revise information within OSS-0254.00-00-4001, OSS-0254.00-00-1028, and SLC 16.5.3. The overall effects of modification ONOE-15894 were evaluated. The activity was determined to not create any condition outside of the limits required by safety analyses with respect to postulated environmental conditions, containment responses, core integrity, and radiological effects.

SAFETY EVALUATION SUMMARY

The changes to OSS-0254.00-00-4001, OSS-0254.00-00-1028, and SLC 16.5.3 were either editorial or are being performed simply to reflect information currently captured within design drawings, NRC correspondence, Technical Specifications, and UFSAR. The majority of changes were related to correspondence associated with GL 88-17 and RG 1.97. No changes to UFSAR or Technical Specifications are required.

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: Low Pressure Service Water (LPSW)

Minor Modification ONOE-16035 was performed to revise information within OSS-0254.00-00-4001 concerning the containment isolation system.

SAFETY EVALUATION SUMMARY

Low Pressure Service Water (LPSW) supplies cooling water to the RCP motor coolers which are located within the reactor building. The LPSW supply piping to the RCP motor coolers is routed through containment by means of Penetration 21. The LPSW discharge piping from the RCP motor coolers is routed from containment back to the LPSW system through Penetration 22. Penetration 21 and 22 are each equipped with a single containment isolation valve that receives an ES signal to close (LPSW-6 and LPSW-15, respectively). Both LPSW-6 and LPSW-15 are located outside of containment. In addition to the containment boundaries provided by LPSW-6 and LPSW-15, the piping between Penetrations 21 and 22 constitutes a closed loop piping system that is not postulated to rupture following an accident requiring containment integrity.

OSS-0254.00-00-4001 and SLC 16.6.1 were changed to reflect the testing requirements associated with Penetration 21 and 22 as described within 10CFR50 Appendix J. Thus, the documentation of testing requirements as well as the actual performance of testing is to be performed within the confines of applicable codes and standards.

MINOR MODIFICATION (ONOE's)

DESCRIPTION

SYSTEM: Fire Suppression System

Minor Modification ONOE-16234 changed the "OPEN" sprinkler heads in the Equipment Room, Cable Room, Cable Shaft Level 3, and Cable Shaft Level 4 & 5 Sprinkler systems to "CLOSED" head. This change is being done to ensure that the amount of water dispersed to the appropriate rooms or shaft is limited only to the areas of the fire (high heat); thus limiting the amount of water damage to the equipment unexposed to the fire/heat.

SAFETY EVALUATION SUMMARY

The sprinkler system, once manually activated, post modification will only disperse a water spray in the areas in which the sprinkler heads were exposed to high ceiling temperatures. This will limit the total flow output of the system and minimize water damage to the unaffected equipment in these areas. Therefore changing the sprinkler heads from open head to closed head is an improvement because it reduces the total flow to one that is proportional to the size of the fire and minimizes potential flooding and unnecessary water spray effects to undamaged equipment. This USQ 50.59 does not result in any unreviewed safety questions. Therefore, the implementation of this modification has a positive effect to overall plant safety. No UFSAR, Technical Specifications, SLC, or License Renewal sections changes required.

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: Fire Suppression System

Minor Modification ONOE-16235 changed the "OPEN" sprinkler heads in the Equipment Room, Cable Room, Cable Shaft Level 3, and Cable Shaft Level 4 & 5 Sprinkler systems to "CLOSED" head. This change is being done to ensure that the amount of water dispersed to the appropriate rooms or shaft is limited only to the areas of the fire (high heat); thus limiting the amount of water damage to the equipment unexposed to the fire/heat.

SAFETY EVALUATION SUMMARY

The sprinkler system, once manually activated, post modification will only disperse a water spray in the areas in which the sprinkler heads were exposed to high ceiling temperatures. This will limit the total flow output of the system and minimize water damage to the unaffected equipment in these areas. In addition, since the amount of runoff water is minimized, other areas of the Auxiliary Building will get reduced water; thereby reducing water damage to areas outside the fire area.

The implementation of this modification will use existing plant administrative processes and installation procedures to ensure correct installation and prevention of interaction with plant electrical sensitive equipment. Therefore, the implementation of this modification has a positive effect to overall plant safety. No UFSAR, Technical Specifications, SLC, or License Renewal sections will need to be changed.

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: Fire Suppression System

Minor Modification ONOE-16236 will replace the open sprinkler heads with closed sprinkler heads. Technically the only physical difference between the two sprinkler heads is that the closed head still has the fusible link.

SAFETY EVALUATION SUMMARY

The operating characteristics specific to the sprinkler head are not being changed. The fire suppression system's manual activation method is not being changed. The new closed heads can withstand HPSW system pressure and thereby preclude a valve misalignment from causing water spray unless high temperatures were also present. Also, the answers to all the screening questions were "No". Therefore, the implementation of this modification has a positive effect to overall plant safety. No UFSAR, Technical Specifications, SLC, or License Renewal sections will need to be changed.

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: SSF RC Makeup System

Minor Modification ONOE-16251 revises the design basis documents regarding operation of the SSF Auxiliary Service Water System and the SSF RC Makeup System.

SAFETY EVALUATION SUMMARY

Minor Modification ONOE-16251 made numerous changes to the SSF ASW and RC Makeup System Design Basis Documents, to provide better guidance to the operators for establishing and controlling SSF ASW flow. In addition, the activation time for the SSF RC Makeup System was relaxed to 20 minutes for Unit 1, similar to Units 2 and 3. The Reactor Coolant Pump seals on Unit 1 were replaced with rubbing face type seals similar to Units 2 and 3. Analysis with the new seals has shown that adequate RCP seal protection is maintained with the change in activation time for the Unit 1 RC Makeup System. In addition, analysis has shown that primary system pressure response is acceptable for maintaining adequate subcooling margin in the reactor coolant system with the changes. Sufficient primary coolant level is maintained and adequate secondary side cooling is provided to ensure natural circulation will be maintained. No adverse effect on maintaining required shutdown margin was created by the change in SSF RC Makeup pump activation time. The UFSAR did not describe any required activation times for the SSF RC Makeup System. Therefore, no changes to the UFSAR will be required from the change in activation times for Unit 1 SSF RC Makeup System. The SSF is still fully capable of meeting the basis of the Technical Specifications related to the SSF systems. No revisions to technical specifications are required.

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: FDW

Minor Modification ONOE-16281 documents the tube and/or plug repairs performed on the 1A Steam Generator. These 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. The modification process is being used to perform this activity because the plugging of steam generator tubes requires revision to drawings and manuals contained within the Oconee Nuclear Site Document Management system.

SAFETY EVALUATION SUMMARY

Minor Modification ONOE-16281 documents tube repairs in the 1A OTSG. These 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. 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.

Presently there are 220 in-service sleeves installed in the 1A OTSG and 663 tubes plugged. Based on the information in TAC ONTC-0-100A-0001-001, there must be greater than 13,201 tubes 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 will be re-evaluated using the revised plugging and sleeving numbers. Based on the evaluation performed, no unreviewed safety questions are created by this minor modification. No changes to the UFSAR or Technical Specifications are required.

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: Feedwater (FDW)

Minor Modification ONOE-16282 documents tube repairs in the 1B OTSG. These 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. The modification process is being used to perform this activity because the plugging of steam generator tubes requires revision to drawings and manuals contained within the Oconee Nuclear Site Document Management system.

SAFETY EVALUATION SUMMARY

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. Presently there are 178 in-service sleeves installed in the 1B Steam Generator and 1642 tubes plugged. Based on the information in TAC ONTC-0-100A-0001-001, Revision 2, there must be greater than 13,201 tubes available in each steam generator to meet core thermal-hydraulic design criteria. Based on the evaluation performed, no unreviewed safety questions are created by this minor modification. No changes to the UFSAR or Technical Specifications are required.

MINOR MODIFICATIONS (ONOE's)

DESCRIPTION

SYSTEM: Containment Isolation

Minor Modification ONOE-10553 was performed to revise information within OSS-0254.00-00-4001 concerning the containment isolation system. The overall effects of the modification ONOE-10553 were evaluated. The activity was determined to not create any condition outside of the limits required by safety analyses with respect to postulated environmental conditions, containment responses, core integrity, and radiological effects.

SAFETY EVALUATION SUMMARY

The majority of changes to OSS-0254.00-00-4001 were performed to simply reflect as-built station policies, programs, and plant conditions. The only change affecting as-built station policies, programs, and plant conditions involved the revised scope of penetrations requiring Type C LLRTs. The basis for requirements of performing Type C LLRTs was revised to reflect a changed station interpretation of current codes and standards. The documentation of why (or why not) certain penetrations are required to be Type C LLRT was revised to reflect the change in interpretation of code requirements. UFSAR section 16.6.1, which documents Type C LLRT requirements, was also revised to reflect the changed interpretation.

III. TEMPORARY MODIFICATIONS (TSMs)

None

IV. PROCEDURES

DESCRIPTION

SYSTEM: Low Pressure System (LPSW)

This safety evaluation supports Operations procedure PT/2/A/0251/023 (LPSW System Flow Test), Revision 12. The reason for this change is to allow a flow path for Unit 3 LPSW pump minimum flow requirements (4,250 gpm) during 3EOC-18.

SAFETY EVALUATION SUMMARY

PT/2/A/0251/023 will not change or prevent any actions described in the SAR nor will they alter any assumptions previously made in evaluating the radiological consequences of an accident. The LPSW System will continue to perform all design, operation, and accident mitigation functions, as they are presently described in the SAR. No other SSCs are adversely affected by the performance of PT/2/A/0251/023. PT/2/A/0251/023 will not affect any fission product barriers or hinder the access to accident mitigation equipment in post accident conditions. The Reactor Coolant System pressure boundary is not adversely affected. No new adverse interactions were determined to exist. No new failure modes are credible. The performance of PT/2/A/0251/023 does not adversely affect any plant safety limit, set point, or design parameters. The test also does not adversely affect the fuel, fuel cladding, RCS, or containment integrity. Based on the preceding discussion, the activity involves no safety concerns or USQs. No changes to Technical Specifications or the UFSAR are required.

PROCEDURES

DESCRIPTION

SYSTEM: Main Steam

This safety evaluation supports performing TT/3/A/0325/012 Turbine Header Pressure Optimization test for Unit 3 at BOC-20.

SAFETY EVALUATION SUMMARY

This procedure is used to temporarily adjust Turbine Header Pressure between 875 and 910 psig and collect data at several specific pressure test plateaus for the purpose of determining the optimum Turbine Header Pressure set point from a perspective of maximizing Unit Gross Output. This activity meets none of the 10CFR50.59 criteria that would require a license amendment. This activity is limited to performing TT/3/A/0325/012 Turbine Header Pressure Optimization test for Unit 3 at BOC-20. This activity has been evaluated by the Safety Analysis Group and determined to present no safety issues relative to the UFSAR transient and accident analysis. There is no impact on safety analysis or dose consequences. The failure modes for the Main Steam System and related SSCs within design limits and will not result in an accident initiator. Based on the preceding discussion, the activity involves no safety concerns or USQs. No changes to Technical Specifications or the UFSAR are required.

PROCEDURES

DESCRIPTION

SYSTEM: Chilled Water

This safety evaluation supports procedure MP/0/A/1800/022 to ensure a successful start of "A" chiller following a loss of power event. The compensatory actions are a troubleshooting plan and a corrective action plan that will be performed by Maintenance in support of Operations during the "A" chiller start, if required.

SAFETY EVALUATION SUMMARY

Compensatory actions have been developed to ensure a successful start of "A" chiller following a loss of power event. The compensatory actions are a troubleshooting plan and a corrective action plan that will be performed by Maintenance in support of Operations during the "A" chiller start, if required. These compensatory actions have been evaluated under 10 CFR 50.59 and it has been determined that a license amendment is not required.

These actions will only be performed if a loss of power event has occurred and "B" chiller is not operating. These instructions only assure that chiller start circuitry will successfully start the chiller. No other SSCs are affected by this change. No equipment is affected that could change radiological consequences. Since the proposed activity does not create a possibility for a malfunction, it can not create a possibility for a malfunction with a different result. These compensatory actions will be performed post accident and cannot create an accident of a different type than previously evaluated. The proposed activity involves the re-start of the chillers that serve the control area and have no relationship to limits for fission product barriers. The methods of evaluation in the UFSAR are not related to the actions required to restart the "A" chiller.

PROCEDURES

DESCRIPTION

SAFETY EVALUATION SUMMARY

SYSTEM: Spent Fuel Pool

This safety evaluation supports Maintenance procedure MP/0/A/1150/005 B to allow the canal seal plate to be removed for repair while the fuel transfer tube covers are removed.

UFSAR section 9.1.4.2.2 mentions the canal seal plate, and the sequence in which fuel movement takes place. Specifically the sequence of installing the seal plate, closing SF-1 and SF-2 and then removing the transfer tube covers is mentioned. This appears to be simply the logical progression of events to allow defueling the reactor, and does not appear to be intended to ensure that the transfer tube covers are installed if the canal seal plate were to be removed for repair. The removal of the canal seal plate while the transfer tube covers are removed will not result in an inadvertent lowering of the spent fuel pool level since SF-1 and SF-2 are verified closed and not leaking.

PROCEDURES

DESCRIPTION

SYSTEM: OAC

This change involves an upgrade to the Super-MARGINS (SMARGINS) software. The current software, SMARGINS version 7 (SMARG07 --Reference 1), is being replaced by version 8 (SMARG08 -- Reference 2).

SAFETY EVALUATION SUMMARY

SMARG08 is an improved version of SMARG07. The new software incorporates modifications to increase the range of power distributions used to calculate margin to thermal and mechanical limits for the fuel. The methodology of calculating the margin to the limits is not changed. SMARG08 was certified per Duke Power's directive for software certification (NSD-800) and verified to yield the same results as SMARG07, excepting the new modifications. The modifications are in compliance with Technical Specifications and approved methods. This change involves no material changes to the plant. The SMARGINS software and resident workstation are not part of any SSC important to safety and do not directly affect any SSCs. The SMARGINS software is not installed at the plant, but rather on workstations in the Nuclear General Office. As indicated, the new software produces the same, or more conservative, analytical results as the replaced software. The assurance of the fuel integrity limits associated with the referenced Technical Specifications is not compromised. This change involves no USQs. No changes to the Technical Specifications, UFSAR, or other SAR documents are required.

PROCEDURES

DESCRIPTION

SYSTEM: Condensate

The purpose of TT/0/A/0261/018 (Chiller Condenser Service Water Pump Air Accumulation) is to determine if air accumulation occurs in Chiller Condenser Service Water Pump piping during CCW siphon flow.

SAFETY EVALUATION SUMMARY

The activity does not create any conditions or events, which lead to accidents previously evaluated in the SAR. After the performance of the test procedure, the Chilled Water (WC) System will continue to operate as originally designed. During the performance of TT/0/A/0261/018, control area cooling is maintained to ensure cooling of vital equipment. The WC System remains operable during the test. No adverse interactions are expected during the performance of the test procedure. WC System Single failure criteria requirements are maintained. The activity will not change or prevent any actions described in the SAR nor will they alter any assumptions previously made in evaluating the radiological consequences of an accident. The WC System will continue to perform all design, operation, and accident mitigation functions, as they are presently described in the SAR. The activity will not affect any fission product barriers or hinder the access to accident mitigation equipment in post accident conditions. The Reactor Coolant System pressure boundary is not adversely affected. No accidents different than already evaluated in the SAR are postulated. No new failure modes are postulated. The performance of the test procedure does not adversely affect any plant safety limit, set point, or design parameters. The test also does not adversely affect the fuel, fuel cladding, RCS, or containment integrity.

The performance of TT/0/A/0261/018 involves no USQs or safety concerns. No UFSAR or Technical Specification changes are required.

V. OPERABILITY EVALUATIONS

DESCRIPTION

SYSTEM: Chilled Water

The purpose of the operability is to set compensatory actions to start the "A" chiller following a loss of power event. The compensatory actions are a troubleshooting plan and a corrective action plan that will be performed by Maintenance in support of Operations during the "A" chiller start, if required.

SAFETY EVALUATIONS

The compensatory actions are a troubleshooting plan and a corrective action plan that will be performed by Maintenance in support of Operations during the "A" chiller start, if required. These compensatory actions have been evaluated under 10 CFR 50.59 and it has been determined that a license amendment is not required.

These compensatory actions will be performed to recover from a previously evaluated accident and will not increase the consequences of the accident. The performance of the compensatory actions will ensure that consequences of the accident are as previously evaluated. Chiller operation activities are performed in the Turbine Building. This activity will not increase dose consequences. Manipulation of chiller controls will not affect any equipment that affects radiological consequences of an accident.

VI. SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Offsite Dose Calculation

This safety evaluation supports a revision to Selected Licensee Commitment (SLC) 16.11.1 which had a limit for dissolved or entrained noble gases which is inconsistent with the NUREG-1301 guidelines for that limit. The current SLC limit for noble gases is $1E-4$ uci/ml. The source document NUREG-1301, "Offsite Dose Calculation Manual Guidance: Standard Radiological Effluent Controls for Pressurized Water Reactors" lists the limit for dissolved and entrained noble gases at $2E-4$ uci/ml.

SAFETY EVALUATION SUMMARY

This change to correct a limit, correct a typographical error and add a reference in SLC 16.11.1 is largely editorial in nature, and does not in any way increase the likelihood of initiation, or adversely affect the mitigation of, any SAR described accidents. No physical modifications to the existing plant equipment or changes in the operation of the plant are required. No new accident scenarios or reactivity management concerns are created. No new radiological release pathways or failure modes are created. Therefore, 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. This change simply corrects SLC 16.11.1 to be consistent with the NUREG-1301.

In addition, a typographical error will to be corrected in 16.11.1 (d) to show the exponent as a superscript. The current number is designated as 1.7×10^6 . The 6 should be designated as the exponent $1.7E6$. The SLC will be corrected to correctly designate the exponent. A reference also will be added for NUREG-1301.

The revision to Selected Licensee Commitment 16.11.1 does not result in an Unreviewed Safety Question or safety concerns. No Technical Specification changes are required.

VI. SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Condensate

This revision to Selected Licensee Commitments (SLC) 16.9.11 added 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 will allow operators to manually close a condenser outlet valve without having to enter an Action condition.

SAFETY EVALUATION SUMMARY

The condenser outlet valves will continue to be capable of performing their required functions. There are no adverse effects on containment integrity, radiological release pathways, fuel design, filtration systems, MSRV relief setpoints, or Radwaste systems. The consequences of any malfunction of a condenser outlet valve or a condenser expansion joint would be the same as described in the SAR. If a condenser outlet valve is closed and is capable of operating either manually or automatically, it is in a safe position for mitigating a TB flood. The proposed change does not affect any margins of safety defined in the basis for any technical specification. The TB flood protection measures are not included in the Technical Specifications. The proposed 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.

The proposed change to SLC 16.9.11 does not require a change to Technical Specifications. The proposed changes do not involve an unreviewed safety question. No changes to the UFSAR are required, other than the change to the SLC itself.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Reactor Coolant System

Selected Licensee Commitment (SLC) 16.5.8a was added as an administrative control until LCO 3.4.9.b could be amended. The 378 kW specified in SLC 16.5.8a is based upon an additional 18 heaters, with each heater providing 14 kW of heat addition. Thus, $126 + (18)(14) = 378$ kW.

SAFETY EVALUATION SUMMARY

The revision to SLC 16.5.8a increases the minimum number of pressurizer heaters required to offset ambient heat losses. There is currently over 1000 kW of pressurizer heaters installed and available/utilized to meet this requirement. This change will require some of these additional heaters to be credited, but there will be no change in how the heaters are physically controlled. The SLC revision does not adversely affect SSW flow used for normal or accident operation. Therefore, this SLC revision will not create any condition which will cause a Loss of Coolant Accident (LOCA), Loss of Offsite Power (LOOP), or any other accident analyzed in the UFSAR. The activity involves increasing the minimum number of pressurizer heaters that are credited for offsetting ambient heat losses in regulatory space. The revision to Selected Licensee Commitment 16.5.18a does not result in an Unreviewed Safety Question or safety concerns.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Low Pressure Injection

The purpose of this activity was to revise the reactor vessel level indication requirements as stated in Selected License Commitment (SLC) 16.5.3 Loss of Decay Heat Removal. The current requirements of this SLC as related to reactor vessel level are as follows:

- 1) The LT-5 Reactor vessel level indication system shall be available and operable.
- 2) An ultrasonic Reactor vessel level detection system, or other backup level indicating system, shall be available and operable in addition to LT-5.

SAFETY EVALUATION SUMMARY

The revised SLC requirement requires one channel of reactor vessel level indication, either LT-5A or LT-5B to be operable and one channel of ultrasonic reactor vessel level detection system, either hot leg or cold leg to be operable. Under normal conditions both channels of reactor vessel level indication and both channels of ultrasonic reactor vessel level detection system will be operable. This SLC revision allows flexibility in the number of channels operable on a per system basis but does NOT reduce the degree of independence required between the level indicating systems. No unreviewed safety questions are created by this Selected Licensee Commitment (SLC) Change Request. No changes to the UFSAR or Technical Specifications are required. Selected License Commitment (SLC) 16.5.3 Loss of Decay Heat Removal was revised.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Keowee

The activity addresses a revision to SLC 16.9.7 7 which allows unit operation at a lake level of 791 feet. SLC 16.9.7 is also revised to identify important components whose operability is dependent on lake level.

SAFETY EVALUATION SUMMARY

The lake level limits in SLC 16.9.7 ensures adequate pump NPSH and/or pump capacity. No new components are being added to the facility. SLC 16.9.7 ensures that the safety-related functions of the LPSW, WC, ESV, HPSW and ECCW systems are maintained by ensuring adequate lake level requirements. SLC 16.9.7 does not create any conditions or events which lead to accidents previously evaluated in the SAR. The SLC revision does not adversely affect flow rates used for normal or accident operation. Therefore, this SLC revision will not create any condition which will cause a LOCA, LOOP, or any other accident analyzed in the FSAR. The LPSW, WC, ESV, HPSW and ECCW systems are designed to withstand a single active failure without loss of function. This requirement has not changed and will continue to be met. The guidance provided in SLC 16.9.7 is consistent with Oconee's design basis. No accidents different than already evaluated in the SAR are postulated. No new failure modes are postulated. SLC 16.9.7 does not adversely affect any plant safety limits, set points, or design parameters. The change does not adversely affect the fuel, fuel cladding, Reactor Coolant System, or containment integrity. With the requirements within SLC 16.9.7, the margin of safety as defined in the basis to any Technical Specification will not be reduced.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Keowee

This 10CFR50.59 Safety Evaluation addresses a revision to Selected Licensee Commitment (SLC) 16.9.7, "Keowee Lake Level." SLC 16.9.7 is revised to allow unit operation at a lake level of 791 feet. SLC 16.9.7 was also revised to identify important components whose operability is dependent on Lake Level.

SAFETY EVALUATION SUMMARY

The lake level limits ensure adequate pump NPSH and/or pump capacity. No new components are being added to the facility. SLC 16.9.7 ensures that the safety-related functions of the LPSW, WC, ESV, HPSW and ECCW systems are maintained by ensuring adequate lake level requirements. SLC 16.9.7 does not create any conditions or events, which lead to accidents previously evaluated in the SAR. The SLC revision does not adversely affect flow rates used for normal or accident operation. Therefore, this SLC revision will not create any condition which will cause a LOCA, LOOP, or any other accident analyzed in the FSAR. The LPSW, WC, ESV, HPSW and ECCW systems are designed to withstand a single active failure without loss of function. This requirement has not changed and will continue to be met. The guidance provided in SLC 16.9.7 is consistent with Oconee's design basis. No accidents different than already evaluated in the SAR are postulated. No new failure modes are postulated. SLC 16.9.7 does not adversely affect any plant safety limits, set points, or design parameters. The change does not adversely affect the fuel, fuel cladding, Reactor Coolant System, or containment integrity. With the requirements within SLC 16.9.7, the margin of safety as defined in the basis to any Technical Specification will not be reduced. The revision to Selected Licensee Commitment 16.9.7 does not result in an Unreviewed Safety Question or safety concerns. No Technical Specification changes are required. The subject SLC was revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Fire Protection System

The changes upgrade the SLC references to 16.9.1, 16.9.2, 16.9.4, and 16.9.5 for the new UFSAR Chapter 18, Section 18.3.17.8, which addresses Aging Management Programs and Activities, associated with the Fire Protection System.

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. 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 SLC changes do not adversely affect the ability of any system to mitigate any accidents described in the SAR. No changes to the Technical Specifications are required to implement these SLC changes.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: High Pressure Injection (HPI)

This 50.59 evaluation supports revision to the revision of SLC 16.6.12 (Additional High Pressure Injection (HPI) Requirements) to include compensatory actions associated with the operable but degraded / non-conforming condition identified within PIP 01-00157.

SAFETY EVALUATION SUMMARY

The conditions and requirements added to SLC 16.6.12 are identical to the conditions and requirements of TS 3.5.2 with the exception of the thermal power level of 75%. Instead of requiring a reduction of thermal power level to at least 75%, SLC 16.6.12 requires that the power level be reduced to at least 50%. This review simply evaluates the ability to maneuver the plant to and maintain the plant in the more restrictive power level conditions described within SLC 16.6.12. There are no operational concerns associated with the ability to perform a power reduction to at least 50% in the most limiting time frame of 3 hours described within SLC 16.6.12. The design of the plant includes an analysis of the consequences of various postulated accidents. The evaluation of the consequences of such accidents provides adequate consideration of the full range of potential power levels which may be maintained by a unit. Based on a review of this activity it was concluded that this activity does not adversely affect any plant safety limit, set point, or design parameter. Additionally, this activity 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. No Technical Specification changes were required. The subject SLC was revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Reactor Building

The bases section of SLC 16.6.13 is being changed to clarify the preferred method for performing surveillance requirement SR 16.6.13.1. This SR monitors average reactor building temperature. However, there is no instrumentation available that will give average reactor building temperature as a direct reading.

SAFETY EVALUATION SUMMARY

A conservative approach is utilized in that the reactor building dome temperature instrumentation will be used as the preferred method for satisfying this SR. Since it is expected that the reactor building dome area will always be the hottest area in the reactor building, it is acceptable to use the reactor building dome temperature as a conservative bound for the average reactor building temperature. This is ensured by implementing surveillance requirements for those parameters. Providing guidance to the Operating Department for acceptable methods to implement one of these surveillance requirements does not in any way affect the safe operation of the plant. This guidance will ensure that the initial conditions in the reactor building which were assumed as design inputs to the safety analysis are conservative. Since the input assumptions are conservative, there can be no adverse effects on the consequences of accidents or component failures analyzed in the plant safety analyses. Also, this activity does not introduce any new failure modes for the LPI system. No changes to Technical Specifications are required. The subject SLC was revised accordingly.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Reactor Building Ventilation

This safety evaluation supports a revision to Selected Licensee Commitment (SLC) 16.6.9 to specify required leak rate testing of the containment purge valves if entering Mode 4 from Mode 5 (if testing had not been performed in the last six months).

SAFETY EVALUATION SUMMARY

The revision to SLC 16.6.9 ensures RB purge valves are tested after final closure prior to entering MODE 4, which is the mode of applicability associated with containment integrity. This change will actually further ensure the capability of containment with respect to Penetration 19 and 20 in MODE 3 and MODE 4. This, in turn, will reduce the consequence of any accident that may occur in MODE 3 and MODE 4.

The second change to SR 16.6.9.1 is a revision of the frequency to "After every entry into MODE 5 from MODE 4". As previously stated this change to SR 16.6.9. makes it consistent with the assumed intent of its predecessor document that appeared to link the required frequency of testing to the operation of the RB Purge. Based upon the considerations documented in this evaluation and the responses to the seven standard questions, the revision of SLC 16.6.9 involves no USQs or safety concerns. There are no Technical Specification changes required.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Reactor Coolant System (RCS)

This activity involved the revision of SLC 16.7.11 to delete the requirement to perform a 31 day channel check on BAMT temperature and delete the requirement to perform a 12 month channel calibration on BAMT temperature and level.

SAFETY EVALUATION SUMMARY

SLC 16.7.11 requires a 31 day channel check and 12 month channel calibration be performed on Boric Acid Mix Tank (BAMT) temperature (Reference Table 16.7.11-1). It also requires a 12 month channel calibration be performed on BAMT level. Tech Spec Amendments 63, 63, and 60 for Units 1, 2, and 3, respectively, revised Tech Spec 3.2.2 to remove information crediting the BAMT as an additional source of borated water. The SLC 16.7.11 requirement to do temperature and level channel checks was a carry-over from old Technical Specification 3.2.2, which credited the BAMT as a source of borated water to increase the reactor coolant system boron concentration to that required for cold shutdown. 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. UFSAR Sections 9.3.1.2 and 9.3.1.2.7 will also be revised in conjunction with this SLC change. (Pkg. 01-50)

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Reactor Coolant System (RCS)

This revision adds a single word “nominal” to the SLC 16.7.2 Bases. This indicates that the DSS setpoint of 2450 psi is not a lower limit value, but is a target value. This change is purely logistical and editorial.

SAFETY EVALUATION SUMMARY

Adding the word “nominal” to the setpoint value in Bases does not change the intent or actual setting requirements of the DSS actuation point. The current wording in the SLC Bases is consistent with that given in UFSAR 7.8.2.2 and calc OSC-3882; however, the use of \geq symbol can lead to the assumption that a minimum value is indicated. That this is not the intention is evident from reading the calc; the symbol merely indicates that the DSS is to operate on increasing pressure. Adding the word “nominal” to the setpoint further clarifies the intent of the setpoint and makes the reading consistent with other SAR documents. 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: Keowee

This revision of Selected Licensee Commitment (SLC) 16.8.4, Keowee Operating Restrictions places restrictions on the Keowee Hydro units during periods of commercial power generation. The revision being evaluated is the increase of Keowee unit 1, unit 2, and dual unit operating envelopes in terms of power and range of acceptable lake levels.

SAFETY EVALUATION SUMMARY

Revision of the Keowee operating restrictions for the Keowee units will not impair the ability of the units to provide emergency power to ONS. Because the new restrictions are based on actual test data and use conservative assumptions in establishing the restrictions, the units are known to be capable of performing their intended function. If the operating restrictions prohibit commercial power generation, the Keowee units are still operable for the emergency power system. 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. This SLC revision does not involve any USQs or safety concerns. No Technical Specifications require change. No FSAR changes are recommended.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Emergency Core Cooling System (ECCS)

This safety evaluation supports the revision which deleted existing SR 16.9.2.3, and added three new surveillance requirements (SR) (16.9.2.3, 16.9.2.4, and 16.9.2.5), added explanatory information to the Bases section to support the Surveillance Requirement change, and enhanced Table 16.9.2-1 (to clarify the distinct between fire sprinkler actuation devices and fire detection instrumentation).

SAFETY EVALUATION SUMMARY

This Selective License Commitment change will not require a change to Technical Specifications or the UFSAR Sections 1 through 15 or Section 18. The performance criteria for each sprinkler and spray system will be met by assuring sufficient water flow impingement on the surface area and/or equipment. Therefore, this change is considered an enhancement to the SLC and a clarification to the field technicians to understand in more discrete terms the engineering expectations for fire sprinkler system performance. Therefore, operability determinations can be performed with better accuracy. This USQ 50.59 does not result in any unreviewed safety questions.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: RCS, FDW, MS (various systems)

This safety evaluation supports changes to Selected Licensee Commitment (SLC) 16.9.2.3. The SLC was deleted and the Basis third paragraph expanded to clarify the expectations of SR 16.9.2.4 and SR 16.9.2.5.

SAFETY EVALUATION SUMMARY

The acceptance criteria of SR 16.9.2.3 was subjective when trying to apply "verbatim" compliance due to the use of "completely and all". SR 16.9.2.3 was also redundant to the objective acceptance criteria in SR 16.9.2.4 and SR 16.9.2 because if the sprinkler heads are passing flow and directed per the design drawings the expected surface areas will be appropriately wetted. Fire protection suppression design applies historical events, designer experience, and NFPA code. Therefore how "wet" the fire area/equipment actually gets during sprinkler system activation is visually subjective. Objective acceptance criteria only should be applied. The design expected flow rates will be essentially achieved as long as a minimum number of sprinkler heads remain operable. Nozzles are operable if they can pass flow and if they are correctly directed towards the intended surface as compared to the installation design. As a minimum number of nozzles clog, backpressure in the supply piping redistributes and slightly increases design nominal nozzle outlet flow. Total flow output of the fire suppression will minimally change which is why SR 16.9.2.4 and SR 16.9.2.5 conservatively only allow 4 nozzles to be blocked.

SELECTED LICENSEE COMMITMENTS

DESCRIPTION

SYSTEM: Fire Protection

This change deletes SR 16.9.2.3, adds three new surveillance requirements (SR) (16.9.2.3, 16.9.2.4, and 16.9.2.5), adds explanatory information to the Bases section, and enhances Table 16.9.2-1 (to clarify between actuation devices and fire detection instrumentation). The new surveillance requirements enhance the determination of system operability for the sprinkler spray system components than was previously stated with only one SR. The Bases section will also be changed to better describe the intent of the new SR's.

SAFETY EVALUATION SUMMARY

The performance criteria for each sprinkler and spray system can still be met by assuring sufficient water flow impingement on the surface area of the location and/or equipment. Therefore, it is considered an enhancement to the SLC to define in more discrete terms the engineering expectations of functionality for sprinkler and spray system performance. This change does not change the license basis or any previously approved NRC commitments. 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 and no UFSAR changes were required. The subject SLC was revised accordingly.

VII. UFSAR CHANGES (Pkg. 01-01)

DESCRIPTION

SYSTEM: Reactor

UFSAR Section 3.6.1.3 was updated to reflect the results of the latest analysis performed to evaluate the effects of the postulated limiting High Energy Line Break (HELB) outside the Reactor Building. This analysis concludes that adequate core cooling can be assured if an EFW maximum flow rate of at least 300 gpm per SG is restored within 30 minutes and at least 1 pump/1 train of HPI is restored within 8 hours.

SAFETY EVALUATION SUMMARY

These delay times will provide additional time so that the required actions can consistently be performed within the analyzed limit and establishes some additional margin between the maximum validation time and the time limit evaluated in the analysis. This activity contains no changes to procedures that will result in longer response times for restoration of EFW and no such changes are anticipated at this time. No Technical Specification changes are required. UFSAR Sections 3.6.1.3 was updated accordingly.

DESCRIPTION

SYSTEM: Reactor Building Spray

Minor Modification ONOE-14092 eliminated a leakage path between the LPI and BS systems. This was accomplished by permanently removing valves 1BS-7, 1BS-8, 1BS-9 and 1BS-10 and capping the remaining affected piping.

Implementing this modification does not change the BS, HPI, and LPI Systems functions. The Building Spray System Pumps will continue to draw suction from the BWST or Reactor Building Emergency Sump as they are designed to do. All system leakage requirements will be maintained after the installation of this modification. Modification OE-14092 will not adversely affect any equipment important to safety or increase the risk to the public during a Design Basis Accident or Event. 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. No changes to Technical Specifications are required. This change to UFSAR Appendix 6, Table 6-2 and Figures 6-1 & 6-2, and also to UFSAR Appendix 9, Figure 9-19, results in no Unreviewed Safety Questions.

DESCRIPTION

SAFETY EVALUATION SUMMARY

SYSTEM: Electrical Systems

A revision to UFSAR Section 8.2.1.3 was made to correct a statement that incorrectly makes reference to "hot shutdown" and cites UFSAR Table 8-1 as supporting a figure for the maximum load during a LOCA/LOOP of 20,628 kVA. The reference to hot shutdown was changed to Mode 4 and the correct maximum load from Table 8-1 is 15,971 kVA. In addition, a revision to the statement concerning the 100 kV power source being the smallest due to the power limitations of Transformer CT-5 clarified that the Keowee underground power path has the same limitation due to Transformer CT-4. A change is also required for UFSAR Table 8-1. The table was corrected to list the capacity of Transformers CT-4 and CT-5 as 22.4 MVA.

This activity will not increase the probability or consequence of an accident previously evaluated in the SAR. This activity will not increase the probability or consequence of an equipment malfunction previously evaluated in the SAR. This activity will not lead to the possibility of a different type of accident or equipment malfunction previously evaluated in the SAR. This activity will not reduce the margin of safety for any Technical Specification. Therefore, there is no unreviewed safety question associated with the performance of this UFSAR revision.

DESCRIPTION

SAFETY EVALUATION SUMMARY

SYSTEM: Reactor

Minor Modification ONOE-16164 performed repairs to four Unit 2 RV head penetrations (CRDM nozzles) during 2EOC18 refueling outage. The repair method was designed by and evaluated by Framatone ANP and determined to be acceptable and within the requirements of the Code for the repairs to the reactor vessel head.

This activity removed the end from four CRDM nozzles to a point above the existing J-groove weld. The portion of the nozzle remaining was welded to the carbon steel base metal of the RV head, inside the bore of the nozzle penetration. The performance of this minor modification does not result in any nuclear safety issue. 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. Chapter 5, Section 5.2.1.6 and 5.3.1 and Table 5-2, page 3 of 3, of the UFSAR were revised accordingly.

DESCRIPTION

SYSTEM: Emergency Feedwater (EFW)

The activity clarified UFSAR Section 3.2.2. The concern of the NRC was with the ability of a secondary side system (EFW) to withstand a tornado missile. Duke erroneously propagated that issue into an unnecessary commitment to provide an alternate primary side suction source for HPI from the SFP post tornado.

SAFETY EVALUATION SUMMARY

There is no physical change to the plant SSCs or operating procedures. Neither the emergency power systems or other important to safety mechanical SSCs will be affected. There are no shutdown margin, reactivity management or fuel integrity concerns. Therefore, analyzed accident scenarios are not impacted. There is no adverse effect on accident initiation or mitigation. No new radiological release pathways are created. This UFSAR change does not adversely affect any plant safety limits, set points, or design parameters, nor does it adversely affect the fuel, fuel cladding, RCS, or containment integrity. No technical specification or SLC changes are required.

DESCRIPTION

SYSTEM: None

UFSAR Section 9.2.2.2.3 is revised to be consistent with UFSAR Section 3.7.3.9, "Interaction of other Piping with Piping Designed for Seismic Conditions". UFSAR Section 3.7.3.9 states:

Automatic or remote manual-operated valves are not required for seismic/non-seismic boundaries that are normally open during reactor operation, provided that an analysis has demonstrated that a seismically-induced failure of the piping would not cause loss of system safety function. Such analysis shall assume only a single pipe break during a seismic event, and the analysis shall determine the effect on the safety-related portion of the system from the most limiting single pipe break.

SAFETY EVALUATION SUMMARY

Updating this information does not perform a physical change to the plant that could affect the probability of occurrence of an accident. 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. The UFSAR was revised to document that only single pipe breaks are postulated. UFSAR Section 9.2.2.2.3 is revised to be consistent with UFSAR Section 3.7.3.9.

DESCRIPTION

SAFETY EVALUATION SUMMARY

SYSTEM: Electrical Systems

UFSAR section 3.11.5 documents equipment temperature limits that would not be exceeded during a 4 hour Station Blackout (SBO) event. However, no design basis can be found for the temperatures documented for the Cable Rooms, Electrical Equipment Rooms, and Control Battery Rooms. Values that have a clear design basis and represent the maximum temperature limit for the equipment required to operate during an SBO event should be documented in this UFSAR section. The purpose of this safety evaluation is to determine if changing these temperature limits and removing the requirement to manually load strip non-essential loads in order to stay below maximum SBO temperature limits within the first 30 minutes after an SBO event generates any unreviewed safety questions.

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 3.11.5 was revised accordingly.

DESCRIPTION

SYSTEM: Reactor Building Spray

This activity changes the minimum number of spray nozzles on the Reactor Building Spray System spray headers located in the dome area of the reactor buildings. The station drawings and flow diagrams, and UFSAR are not consistent with respect to the number of spray nozzles present on each spray header, and some of these documents show nozzle counts different from that which has been verified by field walkdown.

SAFETY EVALUATION SUMMARY

The reduction in number of spray nozzles does not in any way adversely affect the design, integrity, operation or function of systems, structures and components. The BS system will continue to perform its intended safety function and there are no adverse interactions with other plant systems. Additionally, this change 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. 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 6.2.2.2.4 was revised accordingly.

DESCRIPTION

SYSTEM: Spent Fuel Pool

Section 9.1.3 of the Oconee Nuclear Station UFSAR was revised to state that while the BTP 9-2 method was used for the licensing basis maximum Spent Fuel Pool decay heat analysis, decay heat calculations for various operational evolutions may utilize the ORIGEN methodology. These operational evolutions may include such things as removal of Spent Fuel Pool cooling from service for maintenance and subsequent Spent Fuel Pool heatup, calculation of core and Spent Fuel Pool decay heat for refueling outages to ensure that the design basis maximum decay heat envelopes the actual decay heat, etc.

SAFETY EVALUATION SUMMARY

The specific change to the UFSAR states that the SAS2H/ORIGEN-S or ORIGEN-ARP sequences may be used to perform decay heat calculations. No change is being made to the design basis maximum Spent Fuel Pool decay heat loads. Any revision to this value would require NRC review and approval. Rather, the revision includes only the method by which the computation is performed for various operational evolutions, with the decay heat limit still being as reviewed and approved by the NRC. No SSC is directly or indirectly affected by this UFSAR revision. No Technical Specification or Selected Licensee Commitment changes are required. UFSAR Section 9.1.3 was revised accordingly.

UFSAR CHANGES (Pkgs. 01-28)

DESCRIPTION

SYSTEM: None

This activity revised the first sentence of item 3 in UFSAR Section 9.5.1.4.3, as amended to 12/31/00, which states that: "Cable splices in raceways are not permitted". The change involves revising this sentence of item 3 in UFSAR 9.5.1.4.3 to state that: "Cable splices in raceways are not permitted with the exception of cable trench boxes where splicing is allowed provided the splice is contained within a metal enclosure. For splices installed in a cable trench box, the metal enclosure surrounding the splice will provide at a minimum the same level of mechanical protection as provided by the original armor/shield of the cable".

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 9.5.1.4.3 was revised accordingly.

UFSAR CHANGES (Pkgs. 01-29)

DESCRIPTION

SYSTEM: Low Pressure Service Water (LPSW)

This Minor Modification ONOE-16266 replaced the control signal/components going to the existing LPSW 216/219 valves/actuators. This was an analog to digital upgrade.

SAFETY EVALUATION SUMMARY

There is no adverse effect on containment integrity and no new release paths are created. No adverse effects to the Appendix R fire scenarios were determined to exist. The modification does not change the Control area ventilation system's function to ensure cooling of vital equipment as described in the SAR. Therefore, the consequences of UFSAR-analyzed accidents is unchanged as a result of this mod. The equipment failure modes are the same as the existing components, so there is no increase in radiological dose. Therefore, the consequences of SAR-analyzed malfunctions of SSC's important to safety is unchanged as a result of this mod. UFSAR Section 9.2.5.2 will be revised to correct the description of condenser water temperature control and to change the location of the sensor from downstream to upstream of the condenser.

DESCRIPTION

SYSTEM: CCW

Minor Modification ONOE-16620 changed the CCW System Design Basis Document (DBD) to clarify that the Condensate Coolers are not required to be normally isolated. UFSAR Section 3.4.1.1.1 will be revised similarly. UFSAR Section 3.4.2 is revised to delete a reference to a letter to the NRC dated 4/28/86 letter on Turbine Building flood modifications. This letter will no longer need to be referenced to support the statements in UFSAR Section 3.4.1.1.1.

SAFETY EVALUATION SUMMARY

The SSF is the credited means for maintaining safe shutdown during a TBF. The proposed changes have no effect on the SSF. 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. The proposed changes do not involve any effects on a fission product barrier. The changes only involve the normal system alignment to limit flood flow rates during portions of the year. The SSF is the credited means for maintaining safe shutdown during a TBF. 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. The proposed changes do not require a change to Technical Specifications. The proposed changes do not require prior NRC approval. UFSAR Sections 3.4.1.1.1 and 3.4.2 were revised accordingly.

UFSAR CHANGES (Pkgs. 01-31)

DESCRIPTION

SYSTEM: Primary Systems

This activity evaluated using carbohydrazide in primary systems instead of hydrazine.

SAFETY EVALUATION SUMMARY

This activity will require a change to UFSAR Section 9.3.1.1. Currently, hydrazine is used in primary systems to scavenge oxygen. Hydrazine reacts with oxygen to form nitrogen and water. Similarly, carbohydrazide reacts with oxygen to form nitrogen, water, and carbon dioxide. Because hydrazine is a carcinogen, a self-contained breathing apparatus (SCBA) has to be worn by those handling the chemical. Carbohydrazide is preferable to use because it does not require an SCBA to be worn. Based on the considerations documented in this evaluation and the responses to the eight standard questions, this activity does not require a License Amendment Request.

DESCRIPTION

SYSTEM: Reactor Coolant System (RCS)

UFSAR Section 5.4.8.2 is revised to clarify that the Pressurizer Support configurations are designed to prevent the development of thermal loads from the thermal expansion of the Pressurizer rather than to withstand them.

SAFETY EVALUATION SUMMARY

No physical changes are made to any plant SSCs. There is no adverse effect on accident initiation or mitigation. No new radiological release pathways are created. This UFSAR change does not adversely affect any plant safety limits, set points, or design parameters, nor does it adversely affect the fuel, fuel cladding, RCS, or containment integrity. No technical specification or SLC changes are required.

These changes do not increase the likelihood of initiation, or adversely affect the mitigation of any SAR described accidents. This change does not involve an unreviewed safety question. No Technical Specification changes are required. UFSAR Section 5.4.8.2 was revised accordingly.

DESCRIPTION

SYSTEM: Low Pressure Injection (LPI)

Minor Modification ONOE-15735 removed the Engineered Safeguard signal to valve 3LP-21 (3A BWST OUTLET ISOL VLV). Relays 3MX55, 3CR65, 3CR66 and 3RX56 and associated wiring also removed in Engineered Safeguards Odd Channels Terminal Cabinet 3ESTC1. Cables 3EMC657, 3EMC658, 3EMC680 and 3EMC681 and associated RZ Modules are spared in place for future use. Cables 3EMC615 and 3DLP161 are deleted. New cable 3DLP161A is added to provide valve 3LP-21 position indication to the OAC.

SAFETY EVALUATION SUMMARY

This change does not adversely affect the design, integrity, operation or function of systems, structures and components. This Modification involves no Unreviewed Safety Question and may be performed under the regulations of 10CFR50.59. No changes to the Technical Specifications are required. Tech Spec Bases 3.5.3 was modified to add a statement that the ES signal has been removed from 3LP-21 and 3LP-22. Chapter 6, Section 6.3.2.2.2, Figures 6-1 and 6-2, Table 6-11, Chapter 7, Table 7-3, and Chapter 9, Figure 9-19 were changed to show the removal of the automatic feature of 3LP-21 and 3LP-22 to open on an ES signal.

DESCRIPTION

SYSTEM: Reactor

Minor Modification ONOE-15736 removed the Engineered Safeguard signal to valve 3LP-22 (3B BWST OUTLET ISOL VLV). Relays 3MX30, 3CR35, 3CR67 and 3RX34 and associated wiring also removed in Engineered Safeguards Even Channels Terminal Cabinet 3ESTC2. Cables 3EMC661, 3EMC662, 3EMC776 and 3EMC777 and associated RZ Modules are spared in place for future use. Cables 3EMC616 and 3DLP164 are deleted. New cable 3DLP164A is added to provide valve 3LP-22 position indication to the OAC.

SAFETY EVALUATION SUMMARY

This Minor Modification involved no Unreviewed Safety Question and may be performed under the regulations of 10CFR50.59. No changes to the Technical Specifications are required. Tech Spec Bases 3.5.3 was modified to add a statement that the ES signal has been removed from 3LP-21 and 3LP-22. Chapter 6, Section 6.3.2.2.2, Figures 6-1 and 6-2, Table 6-11, Chapter 7, Table 7-3, and Chapter 9, Figure 9-19 were changed to show the removal of the automatic feature of 3LP-21 and 3LP-22 to open on an ES signal.

UFSAR CHANGES (Pkg. 01-38)

DESCRIPTION

SAFETY EVALUATION SUMMARY

SYSTEM: Main Steam and Feedwater

Revised UFSAR Section 3.8.1.4.2(3)(c), "Thermal Gradient", from, "The only high temperature lines penetrating the Reactor Building shell are the main steam and feedwater. Cooling fans and stacks designed to maintain the temperature in the penetration below 150°F are provided", to "The only high temperature lines penetrating the Reactor Building shell are the main steam and feedwater. Cooling fans and stacks designed to maintain the temperature in the Main Steam penetrations below 200°F are provided. The feedwater penetrations rely on natural ventilation for cooling". This revision is necessary because the current design provides forced air cooling only to the Main Steam Penetrations, and field measurements showed the average discharge air temperature was greater than 150 F but less than 200 F.

Adding, correcting or clarifying UFSAR information 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. The design of the Containment is based on ACI 318-63 and is a function of the compressive strength of the concrete. This change does not reduce the compressive strength of concrete below the value assumed in the design documents. The imposed loading conditions that control the containment design are not increased as a result of this revision. No Technical Specification changes are required. UFSAR Section 3.8.1.4.2(3)(c) was changed accordingly.

DESCRIPTION

SYSTEM: Reactor

UFSAR Section 3.8.3.5, "Structural Acceptance Criteria", was revised as a technical change, to add the following sentence at the end of subsection 3., "Under the combined action of dead load and maximum seismic load, reinforced concrete structures shall be designed in accordance with the requirements of Table 3-14. Structural steel structures shall be designed in accordance with the provisions of the AISC Manual of Steel Construction except that normal allowable stresses may be increased by 150%, not to exceed 0.9 yields."

SAFETY EVALUATION SUMMARY

The changes proposed are conservative. The change to Sections 3.8.3.5 and 3.8.4.5 is based on the criteria in Table 3-14. Table 3-14 does not differentiate between reinforced concrete or structural steel design for Class 1 Structures, and it could be argued that the provisions of Table 3-14 apply to either, which would suggest an allowable stress of 0.9 Fy. However, slender structural steel members are more susceptible to stability concerns than is reinforced concrete. For that reason, the allowable stresses for structural steel design are conservatively limited to the values determined in accordance with the AISC Manual of Steel Construction multiplied by 150%, with the further limitation not to exceed 0.9 yield. No Technical Specification changes are required. UFSAR Sections 3.8.3.5 and 3.8.4.5 were updated accordingly.

UFSAR CHANGES (Pkg. 01-40)

DESCRIPTION

SYSTEM: None

UFSAR section 8.3.2.1.8 included a list of the 125Vdc Vital I&C power system alarms. The listing of the bus under voltage alarm included the 123 volt set point. This set point is not critical nor vital to the operation of the 125Vdc Vital I&C power system. Therefore instead of changing the set point in the UFSAR it is being deleted. The set point will be controlled by design document on the Protective Relay Setting elementary drawing.

SAFETY EVALUATION SUMMARY

There is no physical change to the plant SSCs or operating procedures. Neither the emergency power systems or other important to safety mechanical SSCs will be affected. There are no shutdown margin, reactivity management or fuel integrity concerns. Therefore, analyzed accident scenarios are not impacted. This change is an editorial clarification. This activity is not a test procedure and does not physically change out or modify any plant system, structures or components. No valve manipulations, electrical alignments, or system configuration changes are required. No new hazardous materials or potential missiles are installed. This UFSAR change will not adversely affect the ability to mitigate any SAR described accidents. Unit trips and analyzed accidents do not apply to this editorial type change. There is no adverse impact on relief valve setpoints or Radwaste systems. No safety related or important to safety equipment necessary to place or maintain the plant in safe shutdown condition will be impacted. There is no risk of unit trip, or challenge to the RPS or other safety systems.

UFSAR CHANGES (Pkgs. 01-42 & 01-43)

DESCRIPTION

SAFETY EVALUATION SUMMARY

SYSTEM: EFW

UFSAR Section 3.2.2 is revised to add that the nitrogen supply to the Unit 1 EFW control valves are able to withstand the maximum hypothetical earthquake. UFSAR Sections 7.4.3.1.2 and 7.4.3.2.2 are revised to provide the description of the Unit 1 control valves and their function. UFSAR Section 10.4.7.2 is revised to address the function of the Unit 1 valves and their failure modes on loss of air/nitrogen. UFSAR Section 10.4.7.2 is revised to add some Unit 1 alarms. UFSAR Section 10.4.7.3 is revised to add information that the nitrogen supply to the Unit 1 EFW control valves are designed to withstand seismic loadings. UFSAR Section 10.4.9 is revised to add this Unit 1 NSM as a reference. Table 10-2 is revised to indicate the parameter for each EFW control valves' nitrogen pressure as new local indications for the EFW System.

This modification does not meet the criteria for requiring a License Amendment Request (LAR). 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.

DESCRIPTION

SYSTEM: Control Room Ventilation

The following UFSAR Section will be revised as follows: Section 7.7.5 - the words "in the case of Unit 3. In the case of Units 1&2, the control room would be purged with portable equipment" are being added to the sentence regarding the removal of smoke and vapors by the ventilation system.

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 7.7.5 was revised accordingly.

DESCRIPTION

SYSTEM: Emergency Feedwater (EFW)

UFSAR Section 3.2.2 is revised to add that the nitrogen supply to the Unit 3 EFW control valves are able to withstand the maximum hypothetical earthquake. UFSAR Table 3-68 is revised to include additional references for the seismic qualification documentation for the post accident monitoring indicators and the steam generator level control system cabinets. UFSAR Sections 7.4.3.1.2 and 7.4.3.2.2 are revised to provide the description of the Unit 3 control valves and their function. UFSAR Section 7.4.3.2.3 is revised to clarify that the feedwater control valves are the emergency feedwater control valves. UFSAR Section 10.4.7.2 is revised to address the function of the Unit 3 valves and their failure modes on loss of air/nitrogen. UFSAR Section 10.4.7.2 is revised to add some Unit 3 alarms. UFSAR Section 10.4.7.3 is revised to add information that the nitrogen supply to the Unit 3 EFW control valves are designed to withstand seismic loadings. UFSAR Section 10.4.9 is revised to add this Unit 3 NSM as a reference. Table 10-2 is revised to indicate the parameter for each EFW control valves' nitrogen pressure as new local indications for the EFW System.

SAFETY EVALUATION SUMMARY

The modification will not change the design function of the EFW flow control valves, the instrument air supply to these valves, or the nitrogen supply. There is no single active failure that can affect both EFW flow control valves. The EFW flow control valves will still fail open on loss of instrument air and nitrogen. 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 CHANGES (Pkg. 01-45)

DESCRIPTION

SYSTEM: Emergency Feedwater

This evaluation addresses the portions of Minor Modification ONOE-13053, Revision 0, Automatic Feedwater Isolation System, which are not addressed by the LAR submittal. The logic for the control room indicating lights is changed to indicate status of both close circuits of each MDEFWP switchgear. Individual close indicators are installed on the door to the switchgear control compartment.

SAFETY EVALUATION SUMMARY

The portion of Minor Modification ONOE-13053 addressed by this evaluation does not introduce the possibility of a change in the likelihood of a malfunction because the activities reviewed are not an initiator of any new malfunctions and no new failure modes are introduced. No 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. There are no USQ's as a result of these changes. There is no change in the licensing basis criteria for design of cable tray and tray supports because there are no existing criteria for those components. As such, this change does not present an unreviewed safety question and no Technical Specification changes are required. UFSAR Sections 7.1.3, 8.3.1.3 and 7.9.3.2, were updated accordingly.

UFSAR CHANGES (Pkg. 99-140)

DESCRIPTION

SAFETY EVALUATION SUMMARY

SYSTEM: None

This evaluation is for the change to UFSAR Figures 9-27 and 9-28 for closure accuracy review of the Oconee UFSAR Chapter 9 review project.

This activity provides minor clarification to UFSAR Figures 9-27 and 9-28 for consistency with as-installed system configurations on the applicable flow diagrams and HVAC plan drawings for the Auxiliary Building Ventilation System (ABV). The clarifications include installed instrumentation revisions, damper and louver location updates, and duct configuration revisions. As such, the revisions to the UFSAR Figures do not impact ABV system / component design, function and performance and no unreviewed safety questions exist.

UFSAR CHANGES (Pkg. 00-85)

DESCRIPTION

SYSTEM: Keowee

This evaluation is for the revision of UFSAR Figure 8-6 (DWG. K-704) referred to in Section 8.3.2.1. The revision will change the labeling on the supply breaker to the Keowee intake.

SAFETY EVALUATION SUMMARY

UFSAR Section 8.3.2.1 describes the Keowee Hydro station DC power system and references Figure 8-6 showing the 125VDC distribution center and circuit breakers in the system. DC distribution system 2DA shows circuit breaker 2DL supplying "Intake Emergency Control." Emergency lowering of the Keowee intake gate was abandoned in the 1970's when the independent hangers were added from the structure to the gate. Breaker 2DL was turned OFF and the circuits were never removed. The circuit will now be used to supply non-safety related, short-term brake release power to the intake gate hoist. PIP O-01-0286 was written to plan a complete removal of the emergency lower system from the Keowee powerhouse and the Oconee Nuclear Station interfaces.

No unreviewed safety questions are created due to the installation and testing of the new intake gate and intake polar crane control system. No Technical Specification changes are required.

UFSAR CHANGES (Pkg. 00-95)

DESCRIPTION

SYSTEM: Vital I&C Batteries

NSM ON-12999/0 Part AL1 replaced the two Unit 1 125 Vdc Vital Instrument & Control (I&C) Batteries (1CA, 1CB) and the battery racks. The existing battery rack bases and anchors are removed. The method of connecting the power cables to the battery was changed. A battery test circuit with circuit breaker disconnects was added.

SAFETY EVALUATION SUMMARY

The Vital I&C Batteries and their role in the Oconee emergency power system for loss of power events are not adversely affected by this modification. Replacement of the batteries does not change the existing design basis. This change does not create any conditions or events which lead to accidents previously evaluated in the SAR. The Vital I&C Batteries and their associated system are used in the mitigation of some loss of power scenarios. The replacement of the batteries does not adversely affect the dc power supply to the loads on this electrical system. The ability of the loads that are supplied by this system is not adversely affected. The changes in this modification do not change the current function of the batteries.

This modification involves no USQs or safety concerns. No technical specification changes are required. UFSAR Table 3-68 was revised accordingly.

UFSAR CHANGES (Pkg. 00-96)

DESCRIPTION

SYSTEM: Vital I&C Batteries

NSM ON-12999/0 Part AL1 replaced the two Unit 1 125 Vdc Vital Instrument & Control (I&C) Batteries (1CA, 1CB) and the battery racks. The existing battery rack bases and anchors are removed. The method of connecting the power cables to the battery was changed. A battery test circuit with circuit breaker disconnects was added.

SAFETY EVALUATION SUMMARY

The implementation of this procedure will not impair the safety functions of any system, structure, or component essential for the safe operation of the plant. All work will be performed, verification tests and final re-tests completed, and equipment returned to service prior to being required to support plant operation in accordance with the Technical Specifications. Plant and Equipment conditions occurring during the performance of this work will not challenge mitigating systems as outlined in the FSAR and will not violate any Tech Spec requirements.

This modification involves no USQs or safety concerns. No technical specification changes are required. UFSAR Table 3-68 was revised accordingly.

VIII. CALCULATIONS

DESCRIPTION

SYSTEM: Reactor Coolant (RCS)

A safety evaluation is performed for the Oconee Nuclear Station Unit 2, Cycle 18 (O2C18) cycle extension, Tave reduction and implementation of the 5 °F DTc limits in calculation file OSC-7361.

SAFETY EVALUATION SUMMARY

The impact of any other plant changes which might be made concurrent with the cycle extension are not addressed in the calculation. The O2C18 Reload Design Safety Analysis Review (REDSAR), performed in accordance with the Nuclear Engineering Division workplace procedure NE-102, "Workplace procedure for Nuclear Fuel Management," serves as the safety review for the unreviewed safety question evaluation. The O2C18 core reload is similar to past cycle core designs, with a design generated using NRC approved methods. Additionally, no Technical Specification changes specifically related to the cycle extension, EOC Tave reduction and implementation of 5 °F DTc limits for O2C18 core are required. The unreviewed safety question evaluation resulted in the conclusion that there are no unreviewed safety questions concerning the O2C18 cycle extension, Tave reduction and implementation of the 5 °F DTc limits.

CALCULATIONS

DESCRIPTION

SYSTEM: Reactor Coolant (RCS)

A 10CFR50.59 evaluation has been performed for the Oconee Nuclear Station Unit 3, Cycle 20 (O3C20) core reload and is attached to calculation file OSC-7959.

SAFETY EVALUATION SUMMARY

This calculation supports the O3C20 Reload Design Safety Analysis Review (REDSAR), performed in accordance with Nuclear Engineering Division workplace procedure NE-102, "Workplace Procedure for Nuclear Fuel Management", serves as the safety review for the Oconee Unit 3 Cycle 20 core reload. The SAPP and MA sections of the REDSAR checklist documented evaluations of the O3C20 physics parameters. The reload safety evaluation documented in OSC-7959, confirm the updated safety analysis report (UFSAR) Chapter 15 accident analyses remain bounding with respect to the O3C20 safety analysis reactor physics parameters. The safety analysis reactor physics parameters method is described in topical report DPC-NE-3005-PA. The O3C20 core reload is similar to past cycle core design, with a design generated using NRC approved methods. Additionally, no Technical Specification changes specifically related to the operation of the O3C20 core are required. Therefore, the O3C20 core reload 10CFR50.59 evaluation concludes that no prior NRC approval is necessary.

XI. TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: High Pressure Injection (HPI)

This safety evaluation supports an ITS Bases 3.10.1 revision. This activity adds information to the Bases Section of Tech Spec 3.10.1 to aid in determination of SSF Operability.

SAFETY EVALUATION SUMMARY

The activity provides additional guidance about when to enter and exit actions statements for affected SSF Subsystems when other SSF Subsystems are inoperable. Providing this information will not affect accident probability, or consequences. This change will not affect equipment malfunction or create the possibility for a different type of equipment malfunction. The interdependencies described in the activity were present prior to implementation of this Tech Spec Bases change. This change will insure that personnel who make operability determinations are aware of the effect that an inoperable SSF subsystem has on the operability status of other SSF subsystems. 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 are required.

TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: Reactor Coolant System (RCS)

The Tech Spec 3.10.1 Bases Section will be revised to change the number of heaters required for SSF operability and to state that "The minimum required number of pressurizer heaters capable of being powered from the SSF is based on maintaining RCS natural circulation flow."

SAFETY EVALUATION SUMMARY

A USQ evaluation was performed and found that no unreviewed safety question exists. No changes were required to the plant technical specifications. This change will revise the REACTOR COOLANT SYSTEM DBD to describe the minimum number of pressurizer heaters required for the SSF to be operable for a given leakage rate from the pressurizer steam space. The REACTOR COOLANT SYSTEM DBD will also be revised to state that pressurizer heaters are controlled by momentarily pressing the ON pushbutton and are deenergized by momentarily pressing the OFF pushbutton instead of holding the pushbutton in the ON position to control the heaters. 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. The ITS and SLC bases changes do not result in an USQ or have any impact on public health and safety. The changes do not adversely affect the ability of any system to mitigate any accidents described in the SAR. No changes to the Technical Specifications are required to implement these changes.

TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: Switchyard

This change request is to revise the Technical Specification Bases section B 3.3.19 to indicate the proper Degraded Grid minimum switchyard voltage of 225.887 kV instead of 219 kV.

SAFETY EVALUATION SUMMARY

This change is to revise the Technical Specification Bases to indicate the proper Degraded Grid minimum switchyard voltage. The Technical Specification Bases change does not result in an USQ or have any impact on public health and safety. There are no concerns associated with reactivity management. The proposed change does not affect any margins of safety defined in the basis for any technical specification. This change only clarifies the current requirements of LPSW/ECCW in support of DHR. The proposed 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. The changes do not adversely affect the ability of any system to mitigate any accidents described in the SAR. No changes to the UFSAR or Technical Specifications are required.

TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: Low Pressure Injection (LPI)

Tech Spec 3.4.3 background & LCO basis and Minor Modification ONOE-15896 performed the following changes: revised and updated Tech Spec 3.4.3 Background and LCO basis. also, revised LPI DBD to incorporate analyzed conditions for "valving in" an idle LPI train. This change is incorporated in section 20.1.2.3.1 "Shutdown Cooling Operation".

SAFETY EVALUATION SUMMARY

The analysis determined the allowable RCS pressures assuming the LPI fluid temperature of 40 F for a limited period of time (determined by the total volume of the current LPI header) followed by a step change back to the initial RCS temperature. The supplemental analysis has determined that that the brief temperature excursion caused by the fluid initially in the idle LPI train can be ignored when determining compliance with the P-T limits and associated heat up and cooldown rates provided that RCS pressure is less than the 250 F & 300 psig.

TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: Main Steam

The revision decreased the Turbine Stop Valve closure time acceptance criteria of Technical Specification Surveillance Requirement SR 3.7.2.2 from a value of less than or equal to 15 seconds to a value of less than or equal to 1.0 seconds.

SAFETY EVALUATION SUMMARY

This change 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 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 UFSAR changes are required.

TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: Operator Aid Computer

The purpose of Minor Modification ONOE-15253 was to install RTDs in the Unit 2 Cable Room and Electrical Equipment Room. These RTDs provide data to the Operator Aid Computer (OAC) so that the Cable Room and Electrical Equipment Room temperatures can be verified by the CRO as required by Tech. Spec. 3.7.16

SAFETY EVALUATION SUMMARY

This change 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 change procedures. The Bases for Technical Specification 3.7.16 was revised to correct the reference to UFSAR (Section 3.11.5 instead of 3.11.4), and the Bases for Surveillance Requirement 3.7.16.1 was revised to indicate that the temperatures can be obtained by reading existing gauges in each area or by reading computer points. There are no safety concerns or unreviewed safety questions.

TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: Low Pressure Injection (LPI)

Note 3, Condition B, and SR 3.5.3.7 of Technical Specification 3.5.3 refer to the manual operability of the LPI discharge header crossover valves (LP-9 and LP-10). The LPI discharge header crossover valves are non-automatic, power operated valves with remote switches in the control rooms. In addition, the LPI discharge header crossover valves have installed handwheels on the valve actuators. This activity revises the bases of Technical Specification 3.5.3 to clarify that the manual operability of the LPI discharge header crossover valves (LP-9 and LP-10) refers to the operation of the valves from the control room as well as locally at the valve. SR 3.5.2.7 of Technical Specification 3.5.2 refers to the manual operability of the LPI discharge valves to the LPI-HPI flow path (LP-15 and LP-16). The LPI discharge valves to the LPI-HPI flow path are non-automatic, power operated valves with remote switches in the control rooms. In addition, the valves have installed handwheels on the valve actuators. This activity revises the bases of Technical Specification 3.5.2 to clarify that the manual operability of the LPI discharge valves to the LPI-HPI flow path (LP-15 and LP-16) refers to the operation of the valves from the control room as well as locally at the valve.

SAFETY EVALUATION SUMMARY

This change 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 change procedures. Although the ability to locally operate LP-9, LP-10, LP-15, and LP-16 in all postulated scenarios can not be guaranteed, local operation of these valves does provide redundancy in certain scenarios. Therefore, the ability to locally operate LP-9, LP-10, LP-15, and LP-16 is maintained for additional defense in accident mitigation. Based upon the considerations documented in this evaluation and the responses to the seven standard questions, these changes to the Technical Specification 3.5.2 and 3.5.3 bases involve no unreviewed safety question or safety concerns. No Technical Specification changes are required. There are no safety concerns or unreviewed safety questions. No UFSAR changes are required.

TECHNICAL SPECIFICATION BASES

DESCRIPTION

SYSTEM: LPSW and CCW

This revision to Technical Specification Bases 3.4.7, 3.4.8, 3.9.4 and 3.9.5 information with regard to LPSW and ECCW requirements in Modes 5 and 6.

SAFETY EVALUATION SUMMARY

This change 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 change procedures. There are no adverse effects on reactivity. Changes to Technical Specification 3.7.8. bases are incorporated to prevent an ECCW header from inadvertently supplying the Unit 1 and 2 LPSW System and the Unit 3 LPSW System. For example, supplying suction to the Unit 3 LPSW system for shutdown loads from Unit 2 ECCW while Unit 2 ECCW is also credited to supply Unit 1 and 2 LPSW system is not analyzed in LPSW system calculations. The only ECCW flows analyzed are those to the LPSW System to which the ECCW header(s) are credited. If Unit 2 ECCW was credited to Unit 1 and 2 LPSW System but was also supplying Unit 3 LPSW system while Unit 3 was shutdown (fueled, defueled, etc.), low suction pressure could result at the Unit 1 and 2 LPSW pump suction during a design basis event. There are no safety concerns or unreviewed safety questions. No UFSAR changes are required.

X. MISCELLANEOUS

DESCRIPTION

NONE