ENCLOSURE 1

SAN ONOFRE NUCLEAR GENERATING STATION
UNITS 1, 2, AND 3

FACILITY CHANGES IMPLEMENTED FOR THE PERIOD FROM SEPTEMBER 27, 1995 THROUGH JULY 21, 1997

SAN ONOFRE NUCLEAR GENERATING STATION

UNIT 2

FACILITY CHANGES

Design Change Package (DCP) 2-2076.00SJ, Rev. 0

Title: Replacement of Post-Loss Of Coolant Accident (LOCA) Hydrogen Monitor In Containment

Description:

This modification replaces the containment post-LOCA hydrogen monitors and changes the system configuration to enable remote calibration. This DCP provides 1E circuits for a reliable power source for each train and two new integrated 1E solenoid valves to enable calibrating the two trains of hydrogen sensors remotely, post-LOCA, from a panel in the 1E switchgear room. For this change, four containment isolation valves were abandoned in place, power was terminated, and the piping downstream of the valves cut and capped. The existing test valves will remain so that the penetrations can be verified as leak tight as part of the containment local leak rate testing (LLRT) program.

Safety Evaluation:

Providing capability to remotely calibrate the post-LOCA Hydrogen monitors will improve the accuracy of containment hydrogen indication monitoring. Previously, the calibration was required to be performed in a location that may have become uninhabitable post-LOCA due to potential high radiation. The abandoned containment penetration valves are in a configuration which will maintain containment integrity, and no systems important to safety will be compromised.

For this plant modification, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the Updated Final Safety Analysis Report (UFSAR), will not increase as a result of replacing the containment post-LOCA Hydrogen monitors and changing the configuration to enable remote calibration of the system. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Replacing the containment post-LOCA Hydrogen monitors and changing the configuration to enable remote calibration of the system had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

DCP 2-6519.00E, Rev. 0

Title: Provide Qualified Relays in Emergency Chiller Control Circuits

Description:

This modification replaces four General Electric type HGA auxiliary relays in the emergency chiller control circuits with new seismically qualified type HFA century series relays with series resistors.

Safety Evaluation:

Upgrading these emergency chiller control circuit auxiliary relays with new seismically qualified components increases the reliability of the emergency chiller control system.

For this plant modification, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of upgrading these emergency chiller control circuit auxiliary relays with new seismically qualified components. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Upgrading these emergency chiller control circuit auxiliary relays with new seismically qualified components had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

DCP 2-6683.04SP, Rev. 0

Title: Snubber Reduction Phase V

Description:

The snubber reduction program's main objective is to optimize the pipe support configuration, primarily through removal/replacement of snubbers. Pipe stress analyses were performed utilizing up to date analytical techniques that credited approved code and regulatory requirements. This DCP specifically deals with Phase V for Unit 2. The reason for this change was to reduce the amount of surveillance work as well as radiation exposure during normal inservice inspection (ISI) of existing snubbers by reducing the number of snubbers. Phase V consists of 27 Unit 2 pipe stress calculations containing 133 snubbers.

Safety Evaluation:

The optimized configurations of the 27 pipe stress and 21 associated pipe support calculations have been verified by stress analysis performed in accordance with the NRC approved criteria and the ASME Code. Twelve civil structural calculations were revised to evaluate the loads on the building steel and embedded plates and found acceptable. The removal or replacement of the snubbers contained in the 27 pipe stress calculations are confirmed to have no impact on the system function or the pressure boundary of the piping system.

For this plant modification, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of implementation of Phase V of the snubber reduction program. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Implementation of Phase V of the snubber reduction program had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

DCP 2-6683.05SP, Rev. 0

Title: Snubber Reduction Phase VI

Description:

The snubber reduction program's main objective is to optimize the pipe support configuration, primarily through removal/replacement of snubbers. Pipe stress analyses were performed utilizing up to date analytical techniques that credited approved code and regulatory requirements. This package specifically deals with Phase VI for Unit 2. The reason for this change was to reduce the amount of surveillance work as well as radiation exposure during normal inservice inspection (ISI) of existing snubbers by reducing the number of snubbers. Phase VI consists of 12 Unit 2 pipe stress calculations containing 91 snubbers.

Safety Evaluation:

The optimized configurations of the 12 pipe stress and 4 associated pipe support calculations have been verified by stress analysis performed in accordance with the NRC approved criteria and the ASME Code. Four civil structural calculations were revised to evaluate the loads on the building steel and embedded plates and found acceptable. The removal or replacement of the snubbers contained in the 12 pipe stress calculations are confirmed to have no impact on the system function or the pressure boundary of the piping system.

For this plant modification, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of implementation of Phase VI of the snubber reduction program. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Implementation of Phase VI of the snubber reduction program had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

DCP 2-6733.00BC, Rev. 0

Title: Reactor Coolant Pump (RCP) Seal Rework Facility

Description:

This DCP provided a slab, building tie-downs, drainage, electrical outlets, service water and air, and chilled water piping for a permanent RCP seal rework facility at the elevation 63' 6" Unit 2, Hot Machine Shop Area.

Safety Evaluation:

This permanent facility provided a work location that was designed for reliable and efficient seal maintenance.

For this plant modification, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of installation of this permanent facility for reliable and efficient seal maintenance. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. This permanent facility for reliable and efficient seal maintenance had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

DCP 2-740.01M, Rev. 0

Title: Replacement of Notifier Manual Fire Alarm Stations

Description:

This DCP replaced all existing manual fire alarm stations manufactured by Notifier with double action manual fire alarm stations, manufactured by Pyrotronics. All stations located outdoors were installed with weatherproof enclosures.

Safety Evaluation:

Replacing the existing manual fire alarm stations with double action stations prevents accidental tripping of the fire sprinkler system.

For this plant modification, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of replacing existing manual fire alarm stations manufactured by Notifier with double action manual fire alarm stations, manufactured by Pyrotronics. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Replacing the existing manual fire alarm stations manufactured by Notifier with double action manual fire alarm stations, manufactured by Pyrotronics had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Facility Change Evaluation (FCE) 2-96-001, Rev. 0

Title: Unit 2 Cycle 9 Core Reload

Description:

This Facility Change Evaluation examines the following fuel-related design changes for Unit 2 Cycle 9:

1. Replacement of Nuclear Fuel
2. Use of Erbia as a burnable absorber
3. Increase of Uranium-235 enrichment
4. Implementation of 16x16 Guardian Coreless Grid
5. Fuel grid changes
6. Fuel pin maximum exposure change
7. Implementation of Cycle Independent Shape Annealing Matrix (CISAM)
8. Use of "value added" fuel pellets
9. Fuel Cycle length extension
10. Design Basis Accidents (DBA) evaluations

In order to extend the Cycle length from approximately 525 Effective Full Power Days (EFPD) to approximately 570 EFPD the traditional San Onofre Nuclear Generating Station (SONGS) fuel management pattern which used 108 fresh fuel assemblies was modified to utilize higher enrichment fresh fuel. As a result of fuel management optimization, the reload batch size was reduced from 108 to 100 assemblies. The use of Erbia provided Linear Heat Rate (LHR) and Departure From Nucleate Boiling (DNBR) improvements. The increase in U-235 enrichment enabled the core to operate longer with full power capability. The existing 16x16 Guardian grid manufacturing process was modified to eliminate the coring process to improve the quality of both grid and the fuel bundle assembly. To accommodate the increase in cycle length and reduction in the reload batch size, the maximum fuel pin burnup was increased. CISAM verification was used during power ascension testing. Increasing the stack height density of the fuel pellet allowed the fuel cycle length increase and enabled a reduction in number of fresh fuel assemblies. The applicable DBA events were reanalyzed to verify that the Specified Acceptable Fuel Design Limits (SAFDL) were not exceeded for Anticipated Operational Occurrences (AOO) and that the consequences of accidents were within licensing requirements for the events.

FCE 2-96-001, Rev. 0 (continued)

Safety Evaluation:

A systematic review of each of the appropriate events in UFSAR Chapter 3, 6, and 15 was contained in the Reload Analysis Report (RAR) which was part of this design modification package. In all cases, the conclusions were that the new core and fuel assembly modifications did not have an adverse or non-conservative impact on any safety analysis.

The probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of the Unit 2 Cycle 9 core reload modifications. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. The Unit 2 Cycle 9 core reload modifications had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

SAN ONOFRE NUCLEAR GENERATING STATION

UNIT 3

FACILITY CHANGES

DCP 3-2076.00SJ, Rev. 0

Title: Replacement of Post-Loss Of Coolant Accident (LOCA) Hydrogen Monitor In Containment

Description:

This modification replaces the containment post-LOCA hydrogen monitors and changes the system configuration to enable remote calibration. This DCP provides 1E circuits for a reliable power source for each train and two new integrated 1E solenoid valves to enable calibrating the two trains of hydrogen sensors remotely, post-LOCA, from a panel in the 1E switchgear room. For this change, four containment isolation valves were abandoned in place, power was terminated, and the piping downstream of the valves cut and capped. The existing test valves will remain so that the penetrations can be verified as leak tight as part of the containment local leak rate testing (LLRT) program.

Safety Evaluation:

Providing capability to remotely calibrate the post-LOCA Hydrogen monitors will improve the accuracy of containment hydrogen indication monitoring. Previously, the calibration was required to be performed in a location that may have become uninhabitable post-LOCA due to potential high radiation. The abandoned containment penetration valves are in a configuration which will maintain containment integrity, and no systems important to safety will be compromised.

For this plant modification, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of replacing the containment post-LOCA Hydrogen monitors and changing the configuration to enable remote calibration of the system. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Replacing the containment post-LOCA Hydrogen monitors and changing the configuration to enable remote calibration of the system had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

DCP 3-343.00CE, Rev. 0

Title: Install Restraining Plate to Reactor Coolant Pump (RCP) Snubber Connecting Pin

Description:

This DCP provides a snubber connecting pin restraining plate which is bolted to the RCP clevis.

Safety Evaluation:

Installation of this restraining plate prevents the RCP snubber retaining pin from working out of the RCP clevis.

For this plant modification, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of providing a snubber connecting pin restraining plate bolted to the RCP clevis. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Providing a snubber connecting pin restraining plate bolted to the RCP clevis had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

DCP 3-6675.00PJ, Rev. 0

Title: Reroute Instrument Tubing to Component Cooling Water (CCW) Flow Transmitters

Description:

This DCP reroutes the tubing connected to the CCW flow transmitters to correct erroneous flow readings that were due to the existing instrument layout. A similar change to Unit 2 was completed shortly before this reporting period.

Safety Evaluation:

All rerouted tubing meets Quality Class II, Seismic Category I requirements.

For this plant modification, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of rerouting the tubing connected to the CCW flow transmitters. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Rerouting the tubing connected to the CCW flow transmitters had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

DCP 3-6683.04SP, Rev. 0

Title: Snubber Reduction Phase V

Description:

The snubber reduction program's main objective is to optimize the pipe support configuration, primarily through removal/replacement of snubbers. Pipe stress analyses were performed utilizing up to date analytical techniques that credited approved code and regulatory requirements. This DCP specifically deals with Phase V for Unit 3. The reason for this change was to reduce the amount of surveillance work as well as radiation exposure during normal inservice inspection (ISI) of existing snubbers by reducing the number of snubbers. Phase V consists of 27 Unit 3 pipe stress calculations containing 123 snubbers.

Safety Evaluation:

The optimized configurations of the 27 pipe stress and 19 associated pipe support calculations have been verified by stress analysis performed in accordance with the NRC approved criteria and the ASME Code. Thirteen civil structural calculations were revised to evaluate the loads on the building steel and embedded plates and found acceptable. The removal or replacement of the snubbers contained in the 27 pipe stress calculations are confirmed to have no impact on the system function or the pressure boundary of the piping system.

For this plant modification, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of implementation of Phase V of the snubber reduction program. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Implementation of Phase V of the snubber reduction program had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

DCP 3-6683.05SP, Rev. 0

Title: Snubber Reduction Phase VI

Description:

The snubber reduction program's main objective is to optimize the pipe support configuration, primarily through removal/replacement of snubbers. Pipe stress analyses were performed utilizing up to date analytical techniques that credited approved code and regulatory requirements. This DCP specifically deals with Phase VI for Unit 3. The reason for this change was to reduce the amount of surveillance work as well as radiation exposure during normal inservice inspection (ISI) of existing snubbers by reducing the number of snubbers. Phase VI consists of 12 Unit 3 pipe stress calculations containing 79 snubbers.

Safety Evaluation:

The optimized configurations of the 12 pipe stress and 3 associated pipe support calculations have been verified by stress analysis performed in accordance with the NRC approved criteria and the ASME Code. Four civil structural calculations were revised to evaluate the loads on the building steel and embedded plates and found acceptable. The removal or replacement of the snubbers contained in the 12 pipe stress calculations are confirmed to have no impact on the system function or the pressure boundary of the piping system.

For this plant modification, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of implementation of Phase VI of the snubber reduction program. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Implementation of Phase VI of the snubber reduction program had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

DCP 3-740.01M, Rev. 0

Title: Replacement of Notifier Manual Fire Alarm Stations

Description:

This DCP replaced all existing manual fire alarm stations manufactured by Notifier with double action manual fire alarm stations, manufactured by Pyrotronics. All stations located outdoors were installed with weatherproof enclosures.

Safety Evaluation:

Replacing the existing manual fire alarm stations with double action stations prevents accidental tripping of the fire sprinkler system.

For this plant modification, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of replacing existing manual fire alarm stations manufactured by Notifier with double action manual fire alarm stations, manufactured by Pyrotronics. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Replacing the existing manual fire alarm stations manufactured by Notifier with double action manual fire alarm stations, manufactured by Pyrotronics had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

FCE 3-97-002, Rev. 0

Title: Unit 3 Cycle 9 Core Reload

Description:

This Facility Change Evaluation examines the following fuel-related design changes for Unit 3 Cycle 9:

1. Replacement of Nuclear Fuel
2. Use of Erbia as a burnable absorber
3. Increase of Uranium-235 enrichment
4. Implementation of 16x16 Guardian Coreless Grid
5. Fuel grid changes
6. Fuel pin maximum exposure change
7. Implementation of Cycle Independent Shape Annealing Matrix (CISAM)
8. Use of "value added" fuel pellets
9. Fuel Cycle length extension
10. Design Basis Accidents (DBA) evaluations

In order to extend the Cycle length from approximately 525 Effective Full Power Days (EFPD) to approximately 570 EFPD the traditional SONGS fuel management pattern which used 108 fresh fuel assemblies was modified to utilize higher enrichment fresh fuel. As a result of fuel management optimization, the reload batch size was reduced from 108 to 100 assemblies. The use of Erbia provided Linear Heat Rate (LHR) and Departure From Nucleate Boiling (DNBR) improvements. The increase in U-235 enrichment enabled the core to operate longer with full power capability. The existing 16x16 Guardian grid manufacturing process was modified to eliminate the coring process to improve the quality of both grid and the fuel bundle assembly. To accommodate the increase in cycle length and reduction in the reload batch size, the maximum fuel pin burnup was increased. CISAM verification was used during power ascension testing. Increasing the stack height density of the fuel pellet allowed the fuel cycle length increase and enabled a reduction in number of fresh fuel assemblies. The applicable DBA events were reanalyzed to verify that the Specified Acceptable Fuel Design Limits (SAFDL) were not exceeded for Anticipated Operational Occurrences (AOO) and that the consequences of accidents were within licensing requirements for the events.

FCE 3-97-002, Rev. 0 (continued)

Safety Evaluation:

A systematic review of each of the appropriate events in UFSAR Chapter 3, 6, and 15 was contained in the Reload Analysis Report (RAR) which was part of this design modification package. In all cases, the conclusions were that the new core and fuel assembly modifications did not have an adverse or non-conservative impact on any safety analysis.

The probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of the Unit 3 Cycle 9 core reload modifications. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. The Unit 3 Cycle 9 core reload modifications had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

N/A Rev. 0

Title: Unit 3 Steam Generator (SG) Eggcrate Report 50.59 Safety Evaluation

Description:

The purpose of this safety evaluation was to determine whether or not an unreviewed safety question would result from having degraded eggcrate SG tube supports in the Unit 3 Steam Generators.

Safety Evaluation:

Southern California Edison (SCE) performed extensive inspections of the SG secondary side internal supports to validate analysis assumptions and to support the cause assessment investigation. The analyses supported this safety evaluation by addressing various normal operation and accident conditions affecting both individual SG tubes, as well as the entire tube bundle.

For this plant condition, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of the degraded eggcrate SG tube supports in the Unit 3 Steam Generators. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. The degraded eggcrate SG tube supports in the Unit 3 Steam Generators had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

SAN ONOFRE NUCLEAR GENERATING STATION

UNIT 2 AND 3

FACILITY CHANGES

DCP 2/3-2075.00SJ, Rev. 0

Title: Reactor Coolant System (RCS) Drain Down Level Monitoring System (DLMS)

Description:

This design change replaced the Refueling Water Level Probe (RWLP) with a DLMS for monitoring the RCS level in reduced inventory, while in Modes 5 and 6. Three transducers monitor RCS pressure and provide input to a local and remote display via a dedicated computer. This system is comprised of permanently and temporarily installed plant hardware in the containment, the control room, and the computer room. This DCP provided direction to remove portions of the former RWLP system and install and test the replacement DLMS. This change was implemented in response to NRC Generic Letter 88-17 regarding loss of decay heat removal during non-power operation.

Safety Evaluation:

The DLMS determines RCS level by measuring differential pressures and converting them into digital signals which are inputs to the DLMS Personal Computer (PC). By utilizing a communication link provided between the PC and the Critical Function Monitoring System (CFMS), the CFMS compares the level data transmitted by the DLMS with high and low RCS level alarm setpoints, and will annunciate the "DLMS/MIDLOOP TROUBLE" alarm when the level falls outside the range defined by the setpoints.

For this plant modification, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of replacing the RWLP with a DLMS for monitoring the RCS level in reduced inventory. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Replacing the RWLP with a DLMS for monitoring the RCS level in reduced inventory had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

DCP 2/3-2077.00SE, Rev. 0

Title: Containment Emergency Air Coolers (ECUs) Sequence Time Modification

Description:

In order to minimize steam induced water hammer, this DCP increases the margin to forming steam in the ECU's Component Cooling Water (CCW) Tubes following a Loss Of Coolant Accident (LOCA) or a Main Steam Line Break (MSLB) event inside containment, by delaying the start of the ECU fans.

Safety Evaluation:

The delayed start of the ECU fans has been analyzed and does not compromise the safety function of the Class 1E electrical system, the Emergency Diesel Generator, or the Class 1E batteries. This change moves the ECU fan start time within the bound of containment pressure-temperature (P-T) analyses for the design basis LOCA or MSLB event inside containment and has no impact on plant safety functions.

For this plant modification, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of this design change to delay starting of the ECU fans. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Delaying the start of the ECU fans had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

DCP 2/3-6605.08SJ, Rev. 0

Title: Control Panel 2/3-CR-63 Human Factors Modification

Description:

This design change modified and relocated instruments and controls on the Electrical Mimic Bus Panel and turbine control panels. These changes will improve the mimic presentation, ensure panel compliance with the standard color scheme, nameplates, and the instrument arrangements. These changes will also improve the arrangement of the Diesel Generator instrumentation and controls, 4.16 KV controls, and other associated instruments.

Safety Evaluation:

The control room panel layout changes made by this modification had no effect on performance of the associated safety systems. This change complies with NUREG 0700 per Southern California Edison's (SCE's) commitment to avoid mirror image and combined the control switches to improve the plant operation and operator performance. The new instruments are Seismic Category I, QC II, are 1E powered, and perform the same function as before this rearrangement of controls.

For this plant modification, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of these modifications and relocations of the instruments and controls on the Electrical Mimic Bus Panel and turbine control panels. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Modification and relocation of the instruments and controls on the Electrical Mimic Bus Panel and turbine control panels had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

DCP 2/3-2077.00SE, Rev. 0

Title: Service Building Project - Finish Work

Description:

This DCP finishes Service Building Project work by incorporating security related work that moved the Protected Area Barrier (PAB) to a new position following completion of the Service Building Staging Warehouse and the South Security Processing Facility (SSPF). This PAB realignment permanently places the Service Building inside the Protected Area (PA). Personnel, vehicle, and material access into the PA through the SSPF and the South Vehicle Search Area is made possible by the completion of this DCP.

Safety Evaluation:

These changes will improve the reliability and maintainability of the Security System by replacing an obsolete E-field and protected area entry with new, state of the art, equipment. The modifications meet the applicable design, material, and applicable construction standards.

For this plant modification, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of this relocation of the PAB to place the Service Building inside the PA. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Relocation of the PAB to place the Service Building inside the PA had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Minor Modification Package (MMP) 2/3-6868.00SM, Rev. 1

Title: Low Pressure (LP) Gland Bellows Replacements

Description:

This modification replaces the existing rubber bellows on one of the LP turbines in each Unit with stainless steel bellows. The stainless steel bellows are not susceptible to heat and general deterioration associated with the rubber bellows and do not require cooling water. The stainless steel bellows are designed to accommodate the same differential motions of the LP turbine and exhaust hood as the existing rubber bellows. The new bellows have less sealing surface area to minimize the air in-leakage into the condenser.

Safety Evaluation:

Replacing the rubber bellows with more durable stainless steel bellows will increase the reliability of the LP turbine and exhaust hood seal.

For this plant modification, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of replacing existing rubber bellows on one of the LP turbines in each Unit with stainless steel bellows. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. The replacement of existing rubber bellows on one of the LP turbines in each Unit with stainless steel bellows had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

MMP 2/3-6869.OOSM, Rev. 0

Title: Auxiliary Feedwater (AFW) Pump Turbine Overspeed Trip Unit

Description:

This modification reconfigures the AFW Pump steam supply piping and adds a level sight gage and two temperature indicators in the turbine drain system low points to indicate condensate accumulation. These modifications reduced the source of excessive condensate from the steam supply line, provided positive indication to the Operator when condensate backs up in the turbine steam line, and provided drain by-pass around the check valves. This modification was performed to resolve recurring AFW system problems, including turbine overspeed trips, water impact to the turbine steam system check valves, and check valve disk hinge pin wear problems.

Safety Evaluation:

The new piping configuration was analyzed to be within existing stress and system design limits. Additional High Energy Line Break (HELB) locations and pressurized component missile hazards were not created. The modifications reduce the potential for condensate accumulation in the AFW steam line and thus reduce the potential for system waterhammer and the probability of steam system piping failure.

For this plant modification, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of reconfiguring the AFW Pump steam supply piping and adding a level sight gage and two temperature indicators in the turbine drain system low points. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Reconfiguring the AFW Pump steam supply piping and adding a level sight gage and two temperature indicators in the turbine drain system low points had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

DCP 2/3-6926.00SJ, Rev. 0

Title: Radiation Monitoring Data Acquisition System (DAS)

Description:

The DAS was installed as part of the obsolete radiation monitoring upgrade project to provide various forms of indication, data storage, and retrieval of radiation monitoring and related flow information for the newly installed Radiation Monitoring System, and includes installation of software to drive annunciators and cathode-ray tube (CRT) displays.

Safety Evaluation:

The DAS provided all radiation monitoring system alarms with the exception of hardwired Engineered Safety Feature Actuation System (ESFAS) related alarms on the main control board annunciator panels.

For this plant modification, the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of the installed DAS for retrieval and annunciation of radiation monitoring and related flow information. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Installation of the DAS for retrieval and annunciation of radiation monitoring and related flow information had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

SAN ONOFRE NUCLEAR GENERATING STATION

NON DCP/MMP

FACILITY CHANGES

UFSAR Change Package Number - Safety Analysis Report (SAR)23-387

This change considers a Spent Fuel Assembly Drop onto a reconstitution station, or onto a fuel assembly with a Control Element Assembly (CEA), and addresses use of miscellaneous equipment under 2000 pounds above the high density spent fuel storage racks during refueling and normal spent fuel pool maintenance.

Safety Evaluation

The safety evaluation was performed by evaluating each event for criticality consequences and both offsite and control room radiological dose consequences. The calculations that were performed have confirmed that the accident consequences are bounded by the consequences of the design basis analysis of record and that no procedural controls are required for movement of miscellaneous equipment under 2000 pounds.

The probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of a Spent Fuel Assembly Drop onto a reconstitution station, or onto a fuel assembly with a CEA, or use of miscellaneous equipment under 2000 pounds above the high density spent fuel storage racks. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. A Spent Fuel Assembly Drop onto a reconstitution station, or onto a fuel assembly with a CEA, or use of miscellaneous equipment under 2000 pounds above the high density spent fuel storage racks had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

SAR23-391

This change recognizes an additional two pneumatically operated valves that have a safety function. The valves control steam flow to the turbine driven Auxiliary Feedwater (AFW) pump and are designed to close upon initiation of a Main Steam Isolation Signal (MSIS) and open on an Emergency Feedwater Actuation Signal (EFAS).

Safety Evaluation

No physical work was performed. These valves were identified and added to the UFSAR table containing pneumatically operated valves that have a safety function.

The probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of identifying these two pneumatically operated valves that have a safety function. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Identifying these two pneumatically operated valves that have a safety function had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

SAR23-393

This change deletes an incorrect reference to the containment purge vent stack monitor particulate channel as being displayed on the Critical Function Monitoring System (CFMS), when in fact the channel is not in service, deletes an incorrect reference to "particulate detector" which had been deleted, and changes a moving particulate filter to a fixed filter.

Safety Evaluation

These changes which provide correct information and implement a fixed filter configuration have no impact on plant safety functions.

The probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of deleting an incorrect reference to the containment purge vent stack monitor particulate channel and an incorrect reference to "particulate detector," and changing a moving particulate filter to a fixed filter. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Deleting an incorrect reference to the containment purge vent stack monitor particulate channel and an incorrect reference to "particulate detector," and changing a moving particulate filter to a fixed filter had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

SAR23-407

This change incorporates the results of a reanalysis of the thermal response of the Main Steam Isolation Valve (MSIV) area outside containment to a design basis steam line break event. Design and post accident temperatures are changed from 235F to 300F design and 440F post accident.

Safety Evaluation

The 440F post accident is a short term value which does not adversely impact equipment qualification. There have been no changes to the plant or the way in which it is operated.

The probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of these increased post accident temperatures in the MSIV area. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. The increased post accident temperatures in the MSIV area had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

SAR23-415

This modification removed an unused liquid radwaste discharge line to the salt water header by cutting and capping to ensure that radwaste discharge does not use this path to the seawater discharge line. The line had been leaking near the saltwater header, the upstream valve had been locked closed, and this line had never been put into service.

Safety Evaluation

The removal of this line by cutting and capping does not affect the design standards of the radwaste system. All normal radwaste discharge paths and redundancies remain intact.

The probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of removal of this unused liquid radwaste discharge line to the salt water header. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Removal of this unused liquid radwaste discharge line to the salt water header had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

SAR23-420 and SAR23-441

These changes clarify that a full core offload capability at a refueling outage is an abnormal heat load which is bounded by the maximum heat load design basis for the Spent Fuel Pool (SFP) cooling system.

Safety Evaluation

The design calculation for the maximum abnormal heat load is based on having a full core offload within 36 days of the last refueling outage. Calculation results confirm that a full core offload at normal refueling intervals of 18 to 24 months will result in a heat load bounded by the original plant calculation.

The probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of a full core offload at a refueling outage. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. This design calculation ensured that a full core offload at a refueling outage has no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

SAR23-427

This modification responds to the vendor's recommendation to recalibrate the SONGS Nuclear Instrumentation System (NIS) Logarithmic Power Trip Setpoint to fully address decalibrating effects.

Safety Evaluation

This recalibration improves the plant configuration by accommodating power distribution effects, temperature shadowing, and changes in boron concentration.

The probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of this recalibration of the NIS Logarithmic Power Trip Setpoint. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Recalibrating the Logarithmic Power Trip Setpoint had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

SAR23-440

This modification adds alternate Toxic Gas Isolation System (TGIS) sample points in the control room smoke removal intake duct. These alternate toxic gas detector sample points are not normally used. They are provided in the smoke removal intake duct to be available in the event that the normal supply air duct is out of service.

Safety Evaluation

The additional sample points in the control room smoke removal intake duct increase the TGIS reliability.

The probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of adding these alternate TGIS sample points in the control room smoke removal intake duct. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Adding alternate TGIS sample points in the control room smoke removal intake duct had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

SAR23-449

This change implements Revision 3 of NRC Regulatory Guide 1.9, Selection, Design, Qualification, and Testing of Emergency Diesel Generator (EDG) Units Used as Class 1E Onsite Electric Power Systems at Nuclear Power Plants. The major changes introduced by Revision 3 relate to frequency and voltage restoration and surveillance testing requirements.

Safety Evaluation

Use of these, vendor allowed, increased EDG standby duty ratings provide plant operators with increased flexibility in responding to accidents with available discretionary manual loading of EDGs up to an approved limit which is higher than 100% EDG load.

The probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of implementing these approved increases in frequency and voltage limits. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Use of these increased frequency and voltage limits had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

SAR23-456

This change eliminates preoperational testing for the Shutdown Cooling System (SCS) and applies normal monitoring of system performance during SCS operation at refueling.

Safety Evaluation

Normal monitoring of system performance during SCS operation instead of actual condition assessment of preoperational testing has no impact on plant safety functions.

The probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of implementing normal monitoring of system performance during SCS operation at refueling. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Normal monitoring of system performance during SCS operation at refueling has no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

SAR23-459

This modification of the 800Mhz radio system added antennas in the Safety Equipment Building to increase the operability of the radio system in the Safety Equipment Building to help operators perform tasks.

Safety Evaluation

The new modification improved communication in the Safety Equipment Building and normal monitoring and had no impact on plant safety functions.

The probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of adding antennas in the Safety Equipment Building. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Adding antennas in the Safety Equipment Building had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

SAR23-461

This change provides a radiological dose calculation which supports moving two fuel assemblies through the Fuel Transfer System at a time. The calculated dose levels are below the maximum dose rate criterion.

Safety Evaluation

The Fuel Transfer System is designed to carry two fuel assemblies in the carriage at a time. Moving two irradiated fuel assemblies at a time through the transfer system has no impact on plant safety functions. Thermal analysis has been performed which confirmed that there is adequate heat transfer to support simultaneous transfer of two fuel assemblies.

The probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of moving two fuel assemblies through the Fuel Transfer System at a time. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Simultaneous transfer of two fuel assemblies through the Fuel Transfer System at a time has no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

SAR23-463

This change provides a containment hydrogen concentration calculation which was revised to update the containment post-Loss Of Coolant Accident (LOCA) pressure/temperature versus time profile, reflect added margin to the assumed aluminum surface area in containment, and updated the aluminum and galvanized steel inventories inside the containment to reflect plant design changes. This calculation has identified a change in the post-LOCA elapsed time when the containment hydrogen concentration reaches 3.5% volume from 15 days to 10.7 days resulting in earlier operation of the containment hydrogen recombiners.

Safety Evaluation

This change in the post-LOCA elapsed time before the containment hydrogen recombiners are operated has no impact on plant safety functions.

The probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of earlier post-LOCA operation of the containment hydrogen recombiners. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. This earlier operation of the containment hydrogen recombiners has no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

SAR23-464

This modification changes the alarm setpoints for the Main Steam Line (MSL) Area Radiation Monitors consistent with the Nuclear Engineering Design Organization (NEDO) setpoint methodology. This will allow operation of the monitors with new, higher activity radiation source monitors. The originally specified MSL radiation monitors were supplied without keep alive sources and failed to operate due to very low background and cable effects. To resolve this problem the detectors were rebuilt using higher activity radiation sources.

Safety Evaluation

The MSL Area Radiation Monitors provide indication and alarm only and have no impact on plant safety functions. Changing the monitor setpoints does not change the circuitry or operational characteristics of the monitor.

The probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of changing the alarm setpoints for the MSL Area Radiation Monitors to allow operation of the monitors with new, higher activity radiation source monitors. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Changing the alarm setpoints for the MSL Area Radiation Monitors to allow operation with new, higher activity radiation source monitors had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

SAR23-468

The setpoint of the Toxic Gas Isolation System (TGIS) Ammonia Analyzer was set at 75 ppm, but a recalculation has determined that the setpoint should be changed to 70 ppm. Changing the existing setpoint for the TGIS ammonia channel from 75 ppm to 70 ppm reflects the operating parameters of new toxic gas monitoring instrumentation and provides assurance that the system will initiate its safety related functions prior to the accumulation of toxic levels of ammonia. Additionally, since the TGIS propane protection requirements are bounded by the butane setpoint there will be no additional propane setpoint.

Safety Evaluation

Lowering the TGIS ammonia setpoint to 70 ppm from 75 ppm will result in earlier initiation of Toxic Gas Isolation System safety functions, and using the TGIS butane protection requirements for propane has no impact on plant safety functions.

The probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of changing the existing setpoint for the TGIS ammonia channel from 75 ppm to 70 ppm and using the TGIS butane protection requirements for propane. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Changing the existing setpoint for the TGIS ammonia channel from 75 ppm to 70 ppm and using the TGIS butane protection requirements for propane has no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

SAR23-479

This documents replacement of limitorque motor operated valve actuators, in accordance with NRC Generic Letter (GL) 95-07, to ensure motor operated gate valves open under pressure locking conditions. Pressure locking occurs when pressure trapped in the bonnet of the valve prevents the valve from being opened under certain system operating alignments. The SONGS shutdown cooling isolation valves (one in each of Unit 2 and Unit 3) had been identified to have potential for pressure locking. New replacement actuators were installed during the Cycle 9 refueling outages to ensure that the valves can be opened under postulated pressure locked conditions.

Safety Evaluation

Replacing these limitorque motor operated valve actuators ensures that the shutdown cooling isolation valves can be opened under postulated pressure locked conditions and does not alter the valve stroke, or adversely affect the valve performance.

The probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of replacing the shutdown cooling isolation valve limitorque motor operated valve actuators. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Replacing the shutdown cooling isolation valve limitorque motor operated valve actuators had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

ENCLOSURE 2

SAN ONOFRE NUCLEAR GENERATING STATION
UNITS 1, 2, AND 3

PROCEDURE CHANGES IMPLEMENTED FOR THE PERIOD
FROM SEPTEMBER 27, 1995 THROUGH JULY 21, 1997

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Procedure Number SO1-I-2.76 Rev. 0, TCN 0-8

Title: Fire Detection - 480V and 4160V Switchgear Rooms Halon System Functional Test

Description:

Procedure SO1-I-2.76 provides instructions for performing the 480V and 4160V switchgear rooms halon system functional testing. Temporary Change Notice 0-8 deleted steps on magnetic door holders, redefined the operation of the solenoid valve plungers, changed wire lifting steps, incorporated some procedure step corrections, combined some simple procedure steps, and deleted the second verifier.

Safety Evaluation:

Deleting steps on magnetic door holders, redefining the operation of the solenoid valve plungers, changing wire lifting steps, incorporating these procedure step corrections, combining some simple procedure steps, and deleting the second verifier have been evaluated to satisfy safety evaluation criteria.

For this procedure change, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of deleting the steps on the magnetic door holders, redefining the operation of the solenoid valve plungers, changing wire lifting steps, incorporating these procedure step corrections, combining some simple procedure steps, and deleting the second verifier. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Deleting the steps on the magnetic door holders, redefining the operation of the solenoid valve plungers, changing wire lifting steps, incorporating these procedure step corrections, combining some simple procedure steps, and deleting the second verifier had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO123-III-1.1.23 Rev 27

Title: Units 2/3 Chemical Control of Primary Plant and Related Systems

Description:

Procedure SO123-III-1.1.23 provides instructions for a program of parameters, limits, and routine sampling requirements for the Reactor Coolant System and other related systems. S0123-III-1.1.23 was revised to add a lithium/boron coordination curves.

Safety Evaluation:

Adding a lithium/boron coordination curves accommodates higher enrichment fuel that allows operation for longer fuel cycles. Reactor Coolant System corrosion rates will not be adversely affected by the modified chemistry.

For this procedure change, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of applying the lithium/boron coordination curve values. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Use of the lithium/boron coordination curve values had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO123-III-2.1.23 Revs. 16 and 18

Title: Units 2/3 Steam Generator and Condensate/Feedwater Chemistry Control and Sampling Frequencies

Description:

Procedure SO123-III-2.1.23 provides instructions for Steam Generator, Condensate, and Feedwater chemistry control at Units 2 and 3 in order to inhibit Steam Generator tube degradation, to satisfy Technical Specification requirements. Revision 16 to procedure SO123-III-2.1.23 added two new chemicals, dimethylamine and carbohydrozide, for Steam Generator layup. Revision 18 allowed titanium dioxide addition to the secondary system and changed the Main Steam cation conductivity range to allow for organic acid.

Safety Evaluation:

Adding dimethylamine and carbohydrozide for Steam Generator layup, allowing titanium dioxide addition to the secondary system, and changing the Main Steam cation conductivity range to allow for organic acid support the objectives of this procedure to maintain Steam Generator, Condensate, and Feedwater chemistry control, and inhibit Steam Generator tube degradation.

For this procedure change, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of adding dimethylamine and carbohydrozide for Steam Generator layup, allowing titanium dioxide addition to the secondary system, and changing the Main Steam cation conductivity range. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Adding dimethylamine and carbohydrozide for Steam Generator layup, allowing titanium dioxide addition to the secondary system, and changing the Main Steam cation conductivity range had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO123-VII-8.6.18 Rev. 1, TCN 1-1

Title: Serfilco Filtration Systems Set-Up and Filtration

Description:

Procedure SO123-VII-8.6.18 provides instructions for the operation of the Serfilco Filtration Systems for processing radioactive material. Temporary Change Notice 1-1 enables use of a Serfilco Filtration System at the South Yard Facility.

Safety Evaluation:

A Safety Evaluation for the South Yard Effluent Controls procedure, which supported use of a Serfilco Filtration System, bounds this change.

For this procedure change, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of use of a Serfilco Filtration System at the South Yard Facility. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Use of a Serfilco Filtration System at the South Yard Facility had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO123-XV-48 Rev 1

Title: South Yard Facility Effluent Controls

Description:

Procedure SO123-XV-48 establishes controls for handling, decontaminating, processing, and working on radioactive material at the South Yard Facility when the Effluent Radiation Monitoring system is non-operational. SO123-XV-48 was revised to address a change in criteria for use of the carbon dioxide decontamination unit at the South Yard Facility, and using alternate sampling.

Safety Evaluation:

This change addresses use of alternative sampling in lieu of planned permanent monitors on the effluent release point associated with the carbon dioxide decontamination unit. The South Yard carbon dioxide unit maintains a negative pressure and incorporates sample flow rate ducting in place to contain and measure any contamination.

For this procedure change, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of use of alternative sampling in lieu of planned permanent monitors on the effluent release point associated with the carbon dioxide decontamination unit. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. The use of alternative sampling in lieu of planned permanent monitors on the effluent release point associated with the carbon dioxide decontamination unit had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO23-I-6.113, Revs. 8 & 9, and TCNs 6-3 & 7-1

Title: Removal and Installation of Steam Generator (Primary) and Pressurizer Manway Covers

Description:

Procedure SO23-I-6.113 provides the details necessary for the removal and installation of the Steam Generator (Primary) and Pressurizer manway covers. SO23-I-6.113 was revised by Temporary Change Notices 6-3 and 7-1 to increase the maximum allowable fastening torque level of the Unit 2 steam generator primary manway studs. Procedure Revisions 8 and 9 were subsequently issued to allow higher unfastening break away torque for manway removal and to incorporate several procedure step improvements.

Safety Evaluation:

Increasing the torque on the primary manway studs was required in order to stop some minor leakage which had been observed coming from the primary manways upon return to service following the Unit 2 Cycle 9 refueling outage. A calculation was performed for application of increased bolt torque that was higher than the original maximum torque. The calculation concluded that all the steam generator primary manway components had sufficient margin to withstand the required increase in torque.

For these procedure changes, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of higher maximum torque level. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. The higher maximum torque value had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO23-I-8.235 Rev. 0

Title: Cold Bench Testing and Calibration of In Service Testing (IST) Program Safety Relief Valves

Description:

Procedure SO23-I-8.235 was issued to provide instructions for cold bench testing and calibration of IST program safety relief valves.

Safety Evaluation:

This procedure implements ANSI/ASME methods for testing safety relief valves into the inservice testing program.

For this procedure, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of implementing ANSI/ASME methods for testing safety relief valves into the inservice testing program. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Using ANSI/ASME methods for testing safety relief valves in the inservice testing program had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO23-V-1 Rev. 16

Title: Low Power Physics Testing

Description:

Procedure SO23-V-1 provides instructions for Low Power Reactor Physics Testing to determine reactivity parameters of the reactor, verify design calculations following a refueling, and to satisfy Technical Specification Surveillances. SO23-V-1 was revised to delete an end power test which was performed after Low Power Physics Testing.

Safety Evaluation:

This change addresses deletion of an end power test which was performed after Low Power Physics Testing. Instead of an end power test a pre-check of log power indications is credited as a prudent means to check nuclear instrumentation.

For this procedure change, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of deleting an end power test which was performed after Low Power Physics Testing since a pre-check of log power indications is credited as a prudent means to check nuclear instrumentation. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Deletion of the end power test had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO23-XIII-22 Rev. 2

Title: Annual Emergency Lighting System Test

Description:

Procedure SO23-XIII-22 provides instructions for the annual battery discharge capacity test to verify the operability of Appendix R Safe Shutdown, Station Blackout, and Control Room Essential Lighting Systems. SO23-XIII-22 was revised to incorporate recommendations by an emergency lighting crew study, to incorporate changes for the control room essential lighting, to streamline testing by elimination of unnecessary or redundant steps, and to change the procedure title.

Safety Evaluation:

Addition of the above revision to procedure SO23-XIII-22 has increased effectiveness in meeting the surveillance objectives for ensuring Emergency Lighting operability.

For this procedure revision, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of incorporating these changes, including elimination of unnecessary or redundant steps for the control room essential lighting testing. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Incorporation of these changes, including elimination of unnecessary or redundant steps for the control room essential lighting testing, had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO23-XXVI-9.1 Rev. 0

Title: SCE and SDG&E Switchyard Battery and Battery Charger Test

Description:

Procedure SO23-XXVI-9.1 has been issued to provide instructions for testing to determine the capacity of Southern California Edison (SCE) and San Diego Gas and Electric (SDG&E) Switchyard Batteries and Battery Chargers.

Safety Evaluation:

This new procedure satisfies the five year performance test requirements for Non-1E 125 volt direct current Station Battery Banks.

For this procedure, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of this testing to determine the capacity of SCE and SDG&E Switchyard Batteries and Battery Chargers. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. This Switchyard Batteries and Battery Chargers testing had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO23-XXVII-4.34 Revs. 0, 1, and 2

Title: In-Situ Pressure Testing of Steam Generator (SG) Tubing

Description:

Procedure SO23-XXVII-4.34 was issued to provide instructions for in-situ pressure testing of SG tubing. Revisions 1 and 2 were issued to specifically accommodate the Unit 2 Cycle 9 and Unit 3 Cycle 9 refueling outage SG tube testing respectively.

Safety Evaluation:

In-situ hydrostatic pressure testing of flawed SG tubing was utilized to validate inspection results and demonstrate SG tubing structural integrity.

For this procedure, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of this in-situ pressure testing of SG tubing. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. In-situ pressure testing of SG tubing had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO23-XXVII-20.24 Rev. 3, TCN 3-2

Title: Field Procedure and Operating Instruction for Installation of a Flexible Stabilizer in a Recirculation Steam Generator (SG)

Description:

Procedure SO23-XXVII-20.24, TCN 3-2 provides instructions for installation of a flexible stabilizer into a SG. Tube stabilizers were utilized to provide stability to tubes that had circumferential degradation, interaction with foreign materials, degraded eggcrate supports, or other degradation with tube severance potential when tubes were removed from service by use of SG tube plugs. The stabilizer materials are compatible with the primary and secondary side environments.

Safety Evaluation:

Installation of flexible stabilizers provided stability to tubes that had been removed from service by use of SG tube plugs.

For this procedure, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of installation of SG tube flexible stabilizers. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Installation of SG tube flexible stabilizers by this procedure had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO23-XXVII-25.6 Rev. 0

Title: Steam Generator (SG) Tube Pull Field Procedure

Description:

Procedure SO23-XXVII-25.6 provides instructions for removal of tube segments from plugged SG tubes.

Safety Evaluation:

Tubes that have segments removed by this procedure are plugged in accordance with Technical Specification requirements.

For this procedure, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of removal of tube segments from plugged SG tubes. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Removal of tube segments from plugged SG tubes by this procedure had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO23-XXVII-29.61 Rev. 0, TCN 0-7

Title: San Onofre Sequence Control Procedure for Chemical Cleaning of Steam Generators

Description:

Procedure SO23-XXVII-29.61 defined the sequence of operations used for the San Onofre Nuclear Generating Station Unit 2 chemical cleaning, established limits within which the system was to be operated, and defined guidelines, interfaces, and boundaries, within which the evolution was to be performed. Temporary Change Notice (TCN) 0-7 allowed operation at up to 225 degrees F for the second iron step and replaced the existing Safety Evaluation for this procedure.

Safety Evaluation:

Application of procedure SO23-XXVII-29.61 and TCN 7 provided control of the Unit 2 steam generator cleaning process.

For this procedure and change, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, did not increase as a result of the steam generator cleaning process. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. The steam generator cleaning process had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO23-XXVII-29.74 Rev 0 and TCN 0-2

Title: SONGS Waste Processing Evaporator Operating Procedure

Description:

Procedure SO23-XXVII-29.74 and TCN 0-2 outline the operation of the Framatome Technologies evaporator and support equipment as it applies to the Waste Processing Liquid Volume Reduction System (LVRS) at the San Onofre Nuclear Generating Station. This procedure is specifically applicable to the evaporator use in the evaporating of concentrated waste products from nuclear steam generator secondary side chemical cleaning. Temporary Change Notice 0-2 provided for timely implementation of waste processing after completion of Unit 3 steam generator chemical cleaning.

Safety Evaluation:

Application of procedure SO23-XXVII-29.74 and TCN 0-2 provided control of the evaporation processing of concentrated waste products from nuclear steam generator secondary side chemical cleaning.

For this procedure and change, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of the evaporation processing of concentrated waste products from nuclear steam generator secondary side chemical cleaning. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. The evaporation processing of concentrated waste products from nuclear steam generator secondary side chemical cleaning had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO23-XXVII-29.82 Rev. 0

Title: San Onofre Unit 3 Sequence Control Procedure for Chemical Cleaning of Steam Generators

Description:

Procedure SO23-XXVII-29.82 defined the sequence of operations for the San Onofre Nuclear Generating Station Unit 3 chemical cleaning, established limits within which the system was to be operated, and defined guidelines, interfaces, and boundaries, within which the evolution was to be performed.

Safety Evaluation:

Application of procedure SO23-XXVII-29.82 provided control of the steam generator cleaning process specific to Unit 3.

For this procedure, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of the steam generator cleaning process. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. The steam generator cleaning process had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO23-3-3.19 Rev. 7

Title: 4KV Emergency Bus Transfer Test

Description:

Procedure SO23-3-3.19 provides instructions to demonstrate the ability to manually and automatically transfer each Class 1E distribution bus from the normal power source to the alternate power source, to demonstrate the ability of the Diesel Generator Lockout Relay to prevent diesel generator starting, and to demonstrate the ability to manually operate breaker feeders from the Second Point of Control. SO23-3-3.19 was revised to include verifying Fire Isolation Switch contacts position correctly when the switch is positioned in remote and local, and add minor revisions to the Second Point of Control Tests.

Safety Evaluation:

This procedure revision applies additional requirements to include verifying that the Fire Isolation Switch contacts position correctly when the switch is positioned in remote and local, and the addition of minor revisions to the Second Point of Control Tests.

For this procedure change, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of verifying Fire Isolation Switch contacts position correctly when the switch is positioned in remote and local, or as a result of the minor revisions to the Second Point of Control Tests. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Verifying Fire Isolation Switch contacts position correctly when the switch is positioned in remote and local, and implementation of the minor revisions to the Second Point of Control Tests had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO23-3-3.20.1 Rev. 8

Title: Control Room Emergency Air Cleanup System 18-Month Surveillance

Description:

Procedure SO23-3-3.20.1 provides instructions for surveillance of the operability of the Control Room Emergency Air Cleanup System (CREACS), the Emergency Chilled Water System to support the Control Room Isolation System (CRIS) and Toxic Gas Isolation System (TGIS), and the ability to operate the Appendix R Safe Shutdown components from their respective second points of control. SO23-3-3.20.1 was revised to include verifying that fire isolation switch contacts position correctly, added a Surveillance Requirement for the Channel Functional Test on CRIS actuation logic channels, implemented a modification on Unit 3 to make it similar to Unit 2, and added Critical Function Monitoring System (CFMS) point identifications for dampers that change position for a CRIS and a TGIS.

Safety Evaluation:

Addition of the above features to procedure SO23-3-3.20.1 increased it's effectiveness in meeting the surveillance objectives for ensuring the operability of the CREACS, the Emergency Chilled Water System to support the CRIS and TGIS, and the ability to operate the Appendix R Safe Shutdown components from their respective second points of control.

For this procedure change, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of the additional procedure requirements. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. The additional procedure requirements had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO23-3-3.23.1 Rev. 12

Title: Diesel Generator Refueling Interval Tests

Description:

Procedure SO23-3-3.23.1 provides instructions for verification of operability of the Diesel Generators during plant shutdown at a frequency of 24 months. SO23-3-3.23.1 was revised to include verification that the Fire Isolation Switch contacts position correctly when the switch is positioned in remote and local and added test connections for diesel refueling tests.

Safety Evaluation:

This procedure revision adds requirements to include verification that the Fire Isolation Switch contacts position correctly when the switch is positioned in remote and local and the addition of test connections for diesel refueling tests.

For this procedure change, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of verification that the Fire Isolation Switch contacts position correctly when the switch is positioned in remote and local and the addition of test connections for diesel refueling tests. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. The verification that the Fire Isolation Switch contacts position correctly when the switch is positioned in remote and local and the addition of test connections for diesel refueling tests had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO23-3-3.25 Rev. 16, TCN 16-1

Title: Once a Shift Surveillances (Modes 1-4)

Description:

Procedure SO23-3-3.25 provides instructions for Surveillances required to be performed once a shift when in Modes 1 through 4. Temporary Change Notice 16-1 was issued to use the annunciator window for performing the condensate storage tank level surveillance for finer precision than was possible from the previously used control room indicators.

Safety Evaluation:

This procedure TCN uses the annunciator window for performing the condensate storage tank level surveillance for improved precision of this surveillance.

For this procedure change, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of using the annunciator window for performing the condensate storage tank level surveillance . The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Using the annunciator window for performing the condensate storage tank level surveillance had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO23-3-3.25.1 Rev. 20, TCN 20-1

Title: Once a Shift Surveillances (Modes 5 & 6)

Description:

Procedure SO23-3-3.25.1 provides instructions for surveillances required to be performed once a shift while in Modes 5 and 6. Temporary Change Notice 20-1 was issued to use the annunciator window for performing the condensate storage tank level surveillance for finer precision than was possible from the previously used control room indicators.

Safety Evaluation:

Using the annunciator window for performing the condensate storage tank level surveillance will improve the precision of this surveillance.

For this procedure change, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of using the annunciator window for performing the condensate storage tank level surveillance . The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Using the annunciator window for performing the condensate storage tank level surveillance had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO23-3-3.27.1 Rev. 16, TCN 16-1

Title: Once a Week Surveillances (Modes 5 & 6)

Description:

Procedure SO23-3-3.27.1 provides instructions for surveillances required to be performed once a week while in Modes 5 and 6. Temporary Change Notice 16-1 was issued to use the annunciator window for performing the condensate storage tank level surveillance for finer precision than was possible from the previously used control room indicators.

Safety Evaluation:

Using the annunciator window for performing the condensate storage tank level surveillance will improve the precision of this surveillance.

For this procedure change, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of using the annunciator window for performing the condensate storage tank level surveillance . The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Using the annunciator window for performing the condensate storage tank level surveillance had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO23-3-3.50 Rev.7

Title: Safe Shutdown Components Refueling Interval Surveillance

Description:

Procedure SO23-3-3.50 provides instructions for surveillance of the ability to operate Safe Shutdown components from their second points of control. SO23-3-3.50 was revised to include verifying that fire isolation switch contacts position correctly when the switch is positioned in remote and local.

Safety Evaluation:

Addition of the above verifications to procedure SO23-3-3.50 increased its effectiveness in meeting the surveillance objectives for ensuring the ability to operate Safe Shutdown components from their second points of control.

For this procedure change, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of the additional procedure verification requirements. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. The additional procedure verification requirements had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO3-SPC-8 Rev. 0

Title: Ethanolamine treatment of the Unit 3 Secondary System

Description:

Procedure SO3-SPC-8 provides instructions for transfer of ethanolamine (ETA) from storage bins into the Unit 3 Main Chemical Feed System and describes the Chemical Control program for controlling secondary system pH using ETA.

Safety Evaluation:

This new procedure maintains control of the addition of ETA into the Unit 3 Main Chemical Feed System.

For this procedure, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR, will not increase as a result of applying this procedure for adding ETA to the Unit 3 Main Chemical Feed System. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Use of this procedure for adding ETA to the Unit 3 Main Chemical Feed System has no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

Procedure Number SO3-XXVI-9.6946.0.2 Rev. 0, TCN 0-1

Title: Unit 3 Main Generator Off-line Rated Speed Excitation Control System Test

Description:

Procedure SO3-XXVI-9.6946.0.2 provides instructions to demonstrate that the main generator excitation control system and power system stabilizer for Unit 3 operate correctly. Temporary Change Notice 0-1 allowed for one mechanical overspeed sensing mechanism and its associated turbine trip channels to be operable, instead of two, and added Operation's sign-off to the verification step for the Main Turbine overspeed surveillance testing on the Main Turbine hydraulic-governor control system.

Safety Evaluation:

Allowing for one mechanical overspeed sensing mechanism and it's associated turbine trip channels to be operable, instead of two, has been evaluated to satisfy safety evaluation criteria, and the addition of Operation's sign-off to the verification step for the Main Turbine overspeed surveillance testing on the Main Turbine hydraulic-governor control system provides additional assurance of testing compliance.

For this procedure change, the probability of occurrence or the consequences of an accident or malfunction of any equipment important to safety, previously evaluated in the UFSAR will not increase as a result of allowing for one mechanical overspeed sensing mechanism and its associated turbine trip channels to be operable, instead of two, or by the addition of Operation's sign-off to the verification step for the Main Turbine overspeed surveillance testing on the Main Turbine hydraulic-governor control system. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of this change. Allowing for one mechanical overspeed sensing mechanism and its associated turbine trip channels to be operable, instead of two, and the addition of Operation's sign-off to the verification step for the Main Turbine overspeed surveillance testing on the Main Turbine hydraulic-governor control system had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of this change.

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ENCLOSURE 3

SAN ONOFRE NUCLEAR GENERATING STATION
UNITS 1, 2, AND 3

REPORT ON COMMITMENT CHANGES MADE PER NEI "GUIDELINES FOR MANAGING NRC COMMITMENTS"

REPORT ON COMMITMENT CHANGES MADE PER NEI "GUIDELINES FOR MANAGING NRC COMMITMENTS"

NRC letter to Mr. Jose Colvin , Executive Vice President, Nuclear Energy Institute (NEI), dated January 24, 1996 had as an attachment SECY-95-300. This letter and the attached SECY-95-300 both state that the NEI "Guidelines for Managing NRC Commitments" Revision 2, dated December 19, 1995, was an acceptable guide for licensees to follow for managing and changing their commitments to the NRC. Part of the commitment change process, given in the NEI guidelines, identifies that various commitments can be changed with the notification to the NRC made in a report submitted annually or along with the FSAR updates as required by 10CFR50.71(e). The intent of this report would be to provide a brief summary of the commitments changed since the last report in lieu of filing individual notifications as commitments are revised. Prior to the issuance of SECY-95-300 a pilot program was used to test the draft NEI guidelines. San Onofre Units 2 and 3 was one of the six plants which participated in the test program.

The following summarizes the commitment changes for San Onofre Units 2 and 3 that occurred either during the pilot program or from the issuance of the January 24, 1996 NRC letter until December 31, 1997 and are being reported six months after Unit 3 return to service from the Cycle 9 refueling outage.

1. Reactor Trip Breaker Prevention Maintenance Intervals

In the October 2, 1985 response to Generic Letter (GL) 83-23, SCE stated that the Preventative Maintenance (PM) interval for the Reactor Trip Breakers (RTBs) would be six months. This response to GL 83-23 was based on the original April 15, 1983 SCE commitment and May 2, 1983 NRC SER on RTBs. Breaker response time testing was part of the overall preventative maintenance program given in response to Generic Letter 83-23. Such frequent testing results in unnecessary cycling of the RTBs and may actually contribute towards decreased performance of the breakers.

The original Edison commitment on RTBs made on April 15, 1983 stated:

> "5) After 12 more sequential months of successful UV trip testings, the surveillance testing interval may be increased to at least once per 184 days (i.e., semiannually).
>
> 6) If the average of the three UV trip times or the scatter of the three trip times during each test increases significantly from the baseline surveillance tests, or exceeds the baseline-adjusted limits, an evaluation will be performed to determine if the maintenance procedures should be repeated and new surveillance tests initiated.

7) Surveillance and maintenance frequency should continue to be adjusted on the basis of surveillance and maintenance test results. The minimum RTB maintenance frequency should be once every 12 months (i.e., annual PM)."

The NRC SER on Reactor Trip Breakers issued on May 2, 1983 stated:

"The licensee further indicates in the April 15, 1983 report that the reactor trip breaker maintenance frequency will be once every 12 months unless surveillance testing data indicates that maintenance should be performed more often than every 12 months. The staff has reviewed the above and concludes that the new surveillance interval criteria are acceptable."

The frequency for the Reactor Trip Breaker Prevention Maintenance testing interval has been extended from semiannual to annual.

This commitment change is being reported to the NRC in the Refueling Interval Summary Report per the NEI Guidelines. This is a change to a commitment made in response to a Generic Letter which has been implemented.

2. Visual Verification of the Turbine Driven Auxiliary Feedwater Pump Shroud

San Onofre Unit 3 License Condition 2.C.(12)b.2 required a Turbine Driven Auxiliary Feedwater pump shroud to protect the adjacent Auxiliary Feedwater pumps and motors from oil spray in the event of an oil line rupture which could create a fire hazard. After a piece of the shroud was observed missing and noted in an NRC October 4, 1983 Inspection Report, a shiftily surveillance on the Turbine Driven Auxiliary Feedwater pump shrouds was established. In an SCE letter to the NRC dated April 21, 1988, on fire protection, a daily surveillance of the shrouds was described. The shrouds are unique in that they are bolted in place and are only removed for planned maintenance activities. The extensive data base for the Turbine Driven Auxiliary Feedwater pump shroud surveillance and maintenance procedures in place, requiring the shroud to be checked after maintenance activities, provide sufficient justification for the verification interval to be extended to a minimum of once per day and could be extended to once a cycle during the refueling outage.

This commitment change is being reported to the NRC in the Refueling Interval Summary Report per the NEI Guidelines. This is a change to a commitment made to minimize the recurrence of an adverse condition, and the revised commitment is still necessary to minimize recurrence of the adverse condition.

3. Independent Valve Alignment Verification on "Important to Safety Systems"

San Onofre Unit 2 License Condition 2.C.(19).e requires a system for verifying the correct performance of operating activities and to keep the system in effect. The system for verifying the correct performance of operating activities which was implemented at San Onofre Units 2 and 3 had Operations responsible for the verification of the removal and return of "Important to Safety Systems". NUREG-0737 uses different title terminology when discussing individuals performing equipment control measures (i.e., qualified person) and returning equipment to service (i.e., qualified operator). The system for verifying the correct performance of operating activities was revised to allow a qualified person other than an operator to independently verify alignments when removing an "Important to Safety System" from service. Licensed operators are still required to perform independent verifications of alignments for returning "Important to Safety Systems" to service.

This commitment change is being reported to the NRC in the Refueling Interval Summary Report per the NEI Guidelines. This is a change to a commitment that was necessary for compliance with a license condition. The original commitment had been implemented, and the revised commitment preserves compliance.

4. Ultrasonic Testing (UT) of the Salt Water Cooling (SWC) Piping

In the January 26, 1990 response to Generic Letter (GL) 89-13, SCE informed the NRC that part of the program to address Service Water System problems affecting Safety-Related equipment would include UT of the SWC piping during non-outage periods. After several inspections, it was determined that detailed visual inspections would be better for detecting erosion/corrosion problems. GL 89-13 allowed for changes in the program that are technically justified and documentation is maintained.

This is being reported to the NRC in the Refueling Interval Summary Report per the NEI Guidelines. This is a change to a commitment made in response to a Generic Letter which has been implemented.

5. Operator Training at Reduced RCS Inventory Conditions

Generic Letter (GL) 88-17 endorsed a two phase approach to address loss of decay heat removal during non-power operation and the consequences of such a loss. Licensees were requested to respond to the eight expeditious actions and six programmed enhancements recommended in the generic letter. One of the expeditious actions of GL 88-17 was to provide training shortly before entering a reduced inventory condition. SCE's response to the generic letter, dated January 5, 1989 stated that the training will be accomplished within 30 days prior to entering a Reduced Inventory Condition and may be waived if completed within the previous six months. A special training class was to be conducted for all on shift licensed Operators, primary Plant Equipment Operators, Equipment Control personnel, and some Chemistry Technicians. The commitment change is to eliminate the special training class and to integrate the material into the operator requalification program and to schedule the training session six months prior to the first refueling outage each cycle. Non-licensed personnel would continue to receive appropriate training commensurate with their responsibilities. The frequency of this training would be the same as that for plant operators.

This commitment change is being reported to the NRC in the Refueling Interval Summary Report per the NEI Guidelines. This is a change to a commitment made in response to a Generic Letter which has been implemented.

6. Revising the Methodology of Component Cooling Water (CCW) Heat Exchanger Testing

In the January 26, 1990 response to Generic Letter (GL) 89-13, SCE informed the NRC that part of the program to address Service Water System problems affecting Safety-Related equipment would include performance testing of the CCW heat exchangers every refueling outage. After three tests, the licensees were allowed to determine the best test frequency to provide assurance that the equipment will preform the intended safety functions during the intervals between tests with the minimum extended frequency being 5 years. After several inspections, it was determined that the CCW heat exchanger performance tests be conducted at least every other refueling cycle under normal operating conditions. GL 89-13 allowed for changes in the program that are technically justified and documentation is maintained.

This commitment change is being reported to the NRC in the Refueling Interval Summary Report per the NEI Guidelines. This is a change to a commitment made in response to a Generic Letter which has been implemented.

7. Training on the Packaging of Low Level Waste for Transport and Burial

In the September 19, 1979 response to IE Bulletin 79-19, SCE stated that training would be given to all station personnel involved in the handling, shipping, and packaging of radioactive material. SCE's letter to the NRC dated October 7, 1997, revised the commitment. Consequently, training will now be given to Health Physics personnel assigned to the transfer, packaging, and transport of radioactive material.

This commitment change is being reported to the NRC in the Refueling interval summary report per the NEI Guidelines. This is a change to a commitment made in response to a NRC Bulletin which has been implemented.

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ENCLOSURE 4

SAN ONOFRE NUCLEAR GENERATING STATION
UNITS 1, 2, AND 3

LICENSEE CONTROLLED SPECIFICATIONS CHANGES
IMPLEMENTED FOR THE PERIOD
FROM SEPTEMBER 27, 1995 THROUGH JULY 21, 1997

Licensee Controlled Specifications (LCS) Changes Implemented for the Period from September 27, 1995 through July 21, 1997

There were fifty-three LCS changes implemented during this reporting period to incorporate the below changes into the San Onofre Nuclear Generating Station (SONGS) Units 2 and 3 LCS. Each change was evaluated by the 50.59 safety evaluation process to confirm there was no Unreviewed Safety Question (USQ). It was concluded from these safety analyses that the probability of occurrence or the consequences of an accident, or malfunction of any equipment important to safety, previously evaluated in the Updated Final Safety Analysis Report (UFSAR), will not increase as a result of the LCS change. The possibility of either an accident or malfunction of a different type than previously evaluated in the UFSAR was not created as a result of any of these changes. The LCS changes had no effect on either the existing Limiting Conditions for Operation or the Surveillance requirements in the Technical Specifications; thus, the margin of safety as defined in the bases for the Technical Specifications was not reduced as a result of the changes. The LCS change numbers and summary descriptions are provided below.

LCS Change	Description
96-001	Added boron dilution alarm requirements to maintain analysis assumptions for an increase in fuel enrichment and cycle length, added control element assembly (CEA) misalignment power reduction to delineate the power reduction requirements in the event of a single CEA misalignment, added Fuel Handling Isolation Signal (FHIS) requirements, added Spent Fuel Pool (SFP) boron concentration and water level requirements, and editorial changes.
96-002	Added an LCS and Surveillance Requirement (SR) applicability to define plant operating Modes and conditions to assist operators by providing direction in meeting the specifications of the LCS.

(96-003 and 96-004 were both canceled. Numerical sequence is broken elsewhere in this report where LCS changes were not issued.)

LCS Change	Description
96-005	Relocated 10CFR50 Appendix R Fire Protection requirements from procedures to the LCS.
96-006	Revised the description of allowable values for Toxic Gas Isolation Signals (TSIGs) requirements to reflect new allowable values that are applicable for newly installed toxic gas monitoring instrumentation.

LCS Change	Description
96-007	Changed the Seismic Monitoring Instrumentation (SMI) requirements to clarify the requirements by specifying setpoint Operability requirements, excluding containment SMI from the special reporting requirement since it is not accessible during power operation, and changing the name of the "Unit 1 Free Field Instrument" to the "Site Free Field Instrument."
96-010	Modified the Main Steam Line (MSL) radiation monitoring instrumentation conditions, actions, and setpoints to reflect new requirements needed for the new MSL Isolation Area Monitors.
96-011	Deleted four instrument line Containment Isolation Valves from the LCS since they were no longer required and were abandoned in place.
96-012	Revised the Boron Concentration Limit and Fuel Storage Patterns for Region II Racks and the Reconstitution Station to accommodate the increased Cycle 9 fuel enrichment.
96-013	Revised the Surveillance Requirements to address full stroke testing for the operability of manually operated valves that were not previously included in the Inservice Testing Program Surveillances.
96-015	Revised the Snubber Testing Program specification to incorporate a refueling snubber test sample size of 10% in place of 15%, in accordance with revised ASME requirements.
96-016	Corrected the LCS power down curve to address the required power reduction following a single Part Length Control Element Assembly (PLCEA) deviation.
96-017	Revised the Reactivity Control Systems specifications for Moderator Temperature Coefficient (MTC) and Boration Systems to reflect the requirements of the increased Unit 2 Cycle 9 fuel enrichment reload analysis.
96-019	Revised the Refueling Machine SR to incorporate an editorial change to include an omission of conditions under which Surveillance is to be performed.
96-020	Incorporated revised boron dilution alarm setpoint analysis results into the Boron Dilution Alarm SR. The analysis had been revised to compensate for the temperature shadowing effect.

LCS Change	Description
97-001	Revised the Steam Generator (SG) Pressure/Temperature (P/T) limitations to reflect more realistic SG P/T limitations that continue to ensure that pressure induced stresses will not exceed maximum allowable fracture toughness stress limits.
97-002	Revised the Startup Report and Boron Dilution Alarm sections to delete a startup report that was referenced in the Administrative Controls section.
97-003	Revised the Reactor Protection System (RPS)/Engineered Safety Features Actuation System (ESFAS) response times as a result of changes in start time for the Containment Emergency Cooling Units (ECU) fans such that they will start running only after the associated Component Cooling Water (CCW) pump has started. This LCS change accommodates Design Change Package (DCP) 2/3-2077.00SE which protects the ECU's from potential steam induced water hammer.
97-004	Revised the Prestressed Concrete Containment Tendon Surveillance Program section to correct typographical errors which were made during the Technical Specification Improvement Project (TSIP) conversion process.
97-005	Revised the CEA Misalignment Power Reduction requirements to reflect the power reductions applicable for the increased Unit 2 Cycle 9 fuel enrichment reload analyses.
97-006	Revised the Departure from Nucleate Boiling Ratio (DNBR) and Axial Shape Index (ASI) requirements to reflect the Core Operating Limits Supervisory System (COLSS) Out Of Service (COOS) condition changes for the increased Unit 2 Cycle 9 fuel enrichment reload analysis.
97-007	Revised the CEA Position Indicator Channels requirements to address the CEA Reed Switch Position Transmitter's (RSPT) operability in various Plant Modes.
97-008	Revised the Radiation Monitor SR to include a paragraph to clarify that the channel check requirements are not applicable for the MSL radiation monitors since a channel check comparison between channels for the MSL would be meaningless because these channels measure different ranges.
97-009	Revised the validity statement for the 10CFR50 Appendix R SR to ensure each item required is adequately tracked. This change extended the period for this SR implementation to ensure that all SRs are clearly defined, properly referenced in procedures, and appropriately tracked.

LCS Change	Description
97-011	Revised the Containment Penetration Conductor Overcurrent Protective Devices SRs to be applicable to medium and low voltage circuit breakers to verify that these breakers will interrupt fault current to protect the containment penetration conductor from an electrical fault. Also, editorial corrections were made to this section.
97-012	Revised the Reactivity Control Systems Moderator Temperature Coefficient (MTC) and Reactivity Control Systems Boration Systems requirements to increase the minimum Boric Acid Makeup (BAMU) Tank inventory and concentration to be consistent with the increased Cycle 9 fuel enrichment reload analysis.
97-013	Revised the RPS/ESFAS requirements to correct response times and to delete area monitors that no longer exist.
97-014	Revised the Chemistry applicability requirements for clarity to accommodate not performing chloride and floride sampling when the reactor is defueled. Also revised the condition D high chloride or floride concentrations requirements to be only applicable in Modes 5 and 6.
97-015	Revised the Fire Detection Instrumentation requirements to delete a SR to verify operability of the non-supervised circuits associated with detector alarms between the Fire Detection Instrument and the control room. This requirement was initially stated in the Combustion Engineering Standard Technical Specifications, but there are no non-supervised circuits associated with detector alarms between the Fire detection Instrument and Control Room at San Onofre Units 2 and 3. Editorial changes were also made.
97-016	Revised the Unit 2 Boron Dilution Alarm requirements to add a new action to permit boron dilution detection methods to be implemented if one of the channels is inoperable. This measure is an equivalent method to detect approach to a boron dilution event.
97-017	Incorporated several LCS editorial changes to resolve action requests that had been generated from an internal LCS review. The changes had resulted from typographical and editorial errors.
97-019	Revised the Fire Suppression Water System specifications by increasing the minimum contained water volume to satisfy Branch Technical Position (BTP) 9.5-1, Appendix A requirements.

LCS Change	Description
97-020	Revised the TGIS system requirements to provide clarification that the performance of a channel check of the TGIS chlorine sensor is to be the observation of channel behavior with regard to electrolyte level, blower output, and no indication of local failure alarms.
97-021	Revised the Radiation Monitoring Instrumentation (RMI) requirements to clarify the Conditions and make them fully consistent with the former Technical Specification (TS) that was replaced by the LCS.
97-022	Revised the Boron Dilution Alarm requirements for Unit 3 to add a new Action to permit alternate boron dilution detection methods to be implemented if one channel is inoperable. This change is similar to LCS 97-016 that was issued for Unit 2.
97-023	Revised the 10CFR50 Appendix R Safe Shutdown Components requirements to credit the idle CCW make-up pump suction pressure gauge to determine the Primary Plant Make Up (PPMU) tank level, add fire areas which take credit for use of the gauges to determine PPMU tank level, revise credited fire areas for various Diesel Generator (DG) valves, add source range flux monitors to the list of components requiring compensatory actions, and add the Low Pressure Safety Injection (LPSI) pump suction valves.
97-024	Revised the Fire Suppression Water System to provide clarifications that add two Conditions and associated Required Actions and Completion Times concerning the Operability of fire trucks and fire tankers. The Conditions and Completion Times address one seismic fire water tanker being inoperable and the associated Reporting Condition if a Required Action is not fulfilled.
97-025	Revised the 10CFR50 Appendix R requirements to add two new SRs to verify that Steam Generator water level narrow range indicators are Operable by performing a channel check and channel calibration.
97-026	Revised the Seismic Monitoring Instrumentation requirements to correctly reflect the actual measurement range of the Peak Shock Recorder and Peak Shock Annunciator, and to incorporate an editorial change.
97-027	Revised the Radiation Monitoring Instrumentation list to correct the Alarm/Trip Setpoint for Containment High Range Area Monitors from 10R/hr to less than or equal to 10R/hr.

LCS Change	Description
97-028	Revised the Fire Rated Assemblies requirements to clarify inoperable fire rated assembly roving firewatch patrol and continuous fire watch patrol requirements, invoke a one hour Completion Time requirement, and specifically address fire door closure requirements.
97-029	Revised the Fire Hose Stations requirements to clarify Operability and Surveillance Requirements for fire hose stations by specifying Applicability to fire hose stations outside the containment, and defining the Required Action for routing a fire hose within 24 hours when a fire hose station is inoperable.
97-030	Revised the Spray and/or Sprinkler Systems requirements to clarify the Required Actions by adding additional references to hourly firewatch patrol, specifying the requirement to cycle the first isolation valve upstream of the system, specifically defining applicable fire watches, and incorporating several editorial improvements.
97-031	Revised the Fire Detection Instrumentation requirements to clarify the Required Actions by adding and correcting specific component elevations and more accurately describing the applicable areas.
97-032	Revised the Limiting Safety System Trip Setpoints to correctly describe Logarithmic Power Level Mode applicability, and revised the Fuel Storage Pool Boron Concentration SR requirement frequency from 30 to 31 days to accommodate calendar monthly Surveillance frequencies.
97-033	Revised the Post Accident Monitoring Instrumentation (PAMI) specification by expanding the requirement to provide details of the basis for not cross checking the containment high range area monitors. This test is not meaningful due to the different background levels at each of the instrument locations.
97-034	Revised the 10CFR50 Appendix R requirements by crediting the CCW and Salt Water Cooling (SWC) Inservice Testing (IST) program as a more appropriate measure of pump Operability.
97-036	Revised the Limiting Safety System Trip Setpoints requirements to implement installation of Core Protection Calculator (CPC)/Control Element Assembly Calculator (CEAC) Revision 8 software. This revision updated references to CPC and CEAC system documents and revised the value of the Integrated Radial Peaking Factor High Trip Limit.

LCS Change	Description
97-037	Revised the CEA Misalignment Power Reduction requirements to reflect the power reductions applicable for the increased Unit 3 Cycle 9 fuel enrichment reload analyses.
97-038	Revised the Departure from Nucleate Boiling Ratio (DNBR) and Axial Shape Index (ASI) requirements to reflect the Core Operating Limits Supervisory System (COLSS) Out Of Service (COOS) condition changes for the increased Unit 3 Cycle 9 fuel enrichment reload analysis.
97-039	Revised the Prestressed Concrete Containment Tendon Surveillance Program requirements calculated peak containment internal pressure from 55.7 psig to 56.6 psig. The 56.6 psig value resulted from a revised calculation of the peak containment pressure following a Main Steam Line Break (MSLB) inside the containment. The new peak containment pressure value remains below the containment design pressure of 60 psig.
97-040	Revised the 10CFR50 Appendix R requirements to verify Operability of Transfer Switches, Isolation Switches, Fire Isolation Switches, and associated Second Point of Control Handswitches by operation of the switch and verification of proper operation of the switch contacts.
97-041	Revised the 10CFR50 Appendix R Safe Shutdown Components requirements to add a surveillance requirement to perform a channel check on the Auxiliary Feedwater (AFW) Pump discharge pressure gauge since, in response to Information Notice (IN) 84-09. The pressure gauge was being used to support an alternative method for determining SG level.
97-044	Revised the Radiation Monitoring Instrumentation requirements to describe that the MSL area monitors satisfy the Regulatory Guide 1.97 Post Accident Monitoring function of effluent monitoring of noble gases.