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DUKE POWER

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

Subject: Catawba Nuclear Station
Docket Nos. 50-413 and 50-414
1992 10 CFR 50.59 Report

Pursuant to 10 CFR 50.59, find attached a summary of all changes, tests, and experiments which were completed under the provisions of 10 CFR 50.59 from October 1, 1991 to September 30, 1992.

Very truly yours,

A handwritten signature in cursive script that reads "M. S. Tuckman".

M. S. Tuckman

CRL/5059COV.493

Attachment

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CATAWBA NUCLEAR STATION

SUMMARY OF PROCEDURE-RELATED 10 CFR 50.59 EVALUATIONS

PT/1/A/4400/03A, Change #43

Description

The changes made to this procedure at this time do not affect the current test method. An added step requires that the discharge check valve of the same train pump at rest be tested for back flow each time this pump test is performed. Acceptance Criteria is added to provide guidance for action to be taken in case of a back flow failure. This change adds requirement to ensure that 1A Auxiliary Shutdown Panel Supply Unit be off to prevent this unit from operating without a source of cooling water. This change requires that the manual discharge valve of the pump under test be throttled to 90% closed prior to opening the KC supply to the KC Inlet to ND HX 1A Isolation valve so as to prevent possible pump runout. Each of these changes help to prevent or identify equipment problems.

Evaluation

Per the above discussion, there is no unreviewed safety question associated with this change.

PT/1/A/4400/03B, Change #40

Description

The changes made to this procedure at this time do not affect the current test method. An added step requires that the discharge check valve of the same train pump at rest be tested for back flow each time this pump test is performed. Acceptance Criteria is added to provide guidance for action to be taken in case of a back flow failure. This change adds requirement to ensure that 1B Auxiliary Shutdown Panel Supply Unit be off to prevent this unit from operating without a source of cooling water. This change requires that the manual discharge valve of the pump under test be throttled to 90% closed prior to opening the KC supply to the KC Inlet to ND HX 1B Isolation valve so as to prevent possible pump runout. Each of these changes help to prevent or identify equipment problems.

Evaluation

Per the above discussion, there is no unreviewed safety question associated with this change.

PT/2/A/4400/03A, Change #17

Description

The changes made to this procedure at this time do not affect the current test method. An added step requires that the discharge check valve of the same train pump at rest be tested for back flow each time this pump test is performed. A means for tracking KC pump availability is added, as well as a change which will reduce the time that the KC pump(s) are unavailable during the performance of this procedure. Acceptance Criteria is added to provide guidance for action to be taken in case of a back flow failure. This change adds requirement to ensure that 2A Auxiliary Shutdown Panel Supply Unit be off to prevent this unit from operating without a source of cooling water. This change requires that the manual discharge valve of the pump under test be throttled to 90% closed prior to opening the KC supply to the KC Inlet to ND HX 2A Isolation valve so as to prevent possible pump runout. Each of these changes help to prevent or identify equipment problems.

Evaluation

Sections 9.2.2, 9.2.2.1, 9.2.2.2, 9.2.2.3.2 and 9.2.2.4 of the FSAR were consulted. Per the above discussion, there is no unreviewed safety question associated with this change.

PT/2/A/4400/03B, Change #19

Description

The changes made to this procedure at this time do not affect the current test method. An added step requires that the discharge check valve of the same train pump at rest be tested for back flow each time this pump test is performed. A means for tracking KC pump availability is added, as well as a change which will reduce the time that the KC pump(s) are unavailable during the performance of this procedure. Acceptance Criteria is added to provide guidance for action to be taken in case of a back flow failure. This change adds requirement to ensure that 2B Auxiliary Shutdown Panel Supply Unit be off to prevent this unit from operating without a source of cooling water. This change requires that the manual discharge valve of the pump under test be throttled to 90% closed prior to opening the KC supply to the KC Inlet to ND HX 2B Isolation valve so as to prevent possible pump runout. Each of these changes help to prevent or identify equipment problems.

Evaluation

Sections 9.2.2, 9.2.2.1, 9.2.2.2, 9.2.2.3.2 and 9.2.2.4 of the FSAR were consulted. Per the above discussion, there is no unreviewed safety question associated with this change.

AFP-CNS-5.004, Revision #6

Description

Bahnson Service Company ductwork installation procedure.

Evaluation

This procedure has been compared with Technical Specifications, the FSAR and design documents to ensure that the actions it controls will comply with established Duke Power and Station requirements to maintain plant equipment in its as built/as designed condition. Since plant equipment will be maintained in an as designed / as built condition the possibility, probability or consequences of a malfunction will be reduced. Therefore, no unreviewed safety question exists.

AFP-CNS-5.002, Revision #3

Description

Bahnson Service Company ductwork accessories installation procedure.

Evaluation

This procedure has been compared with Technical Specifications, the FSAR and design documents to ensure that the actions it controls will comply with established Duke Power and Station requirements to maintain plant equipment in its as built/as designed condition. Since plant equipment will be maintained in an as designed as built condition the possibility, probability or consequences of a malfunction will be reduced. Therefore, no unreviewed safety question exists.

AFP-CNS-9.001, Revision #3

Description

Bahnson Service Company Catawba site welding procedure.

Evaluation

This procedure has been compared with Technical Specifications, the FSAR and design documents to ensure that the actions it controls will comply with established Duke Power and Station requirements to maintain plant equipment in its as built/as designed condition. Since plant equipment will be maintained in an as designed / as built condition the possibility, probability or consequences of a malfunction will be reduced. Therefore, no unreviewed safety question exists.

OP/0/B/6250/10, REV 7

Description:

This change adds the use of Ethanol amine or any Amine to those approved for use by Nuclear Chemistry.

Evaluation:

Technical Specifications 3/4.7 and 6.8.4.C, the Environmental Protection Plan, FSAR Sections 5.4.2, 10.3.5, 10.4.1.4, 10.4.6, 10.4.7, 10.4.8, and 10.4.9 were reviewed. This procedure revision for operating the conventional chemical addition system, and pH control additives do not alter the accident and malfunction scenarios outlined in the FSAR. This procedure revision will not deviate from any Technical Specification. There is no unreviewed safety question associated with this revision.

OP/2/A/6350/02, Retype #11

Description

This retype was developed to address concerns with alignment of 1EMXG and 2EMXH motor control centers, as well as concerns with reverse power trips when re-parallelizing an Essential Bus supplied only by a DG. Additional changes were added as procedural enhancements allowed by the new word processing package.

Safety Evaluation

These changes are not significant enough to require a change in the FSAR nor do they require inclusion into the FSAR. The majority of these changes are administrative in nature (graphics, notes, etc.) and the remaining changes were the result of a PIR response or plant staff input. No unreviewed safety question is judged to be created as a result of these changes.

OP/1/A/6350/02, Retype #16

Description

This retype was developed to address concerns with alignment of 1EMXG and 2EMXH motor control centers, as well as concerns with reverse power trips when re-parallelizing an Essential Bus supplied only by a DG. Additional changes were added as procedural enhancements allowed by the new word processing package.

Safety Evaluation

These changes are not significant enough to require a change in the FSAR nor do they require inclusion into the FSAR. The majority of these changes are administrative in nature (graphics, notes, etc.) and the remaining changes were the result of a PIR response or plant staff input. No unreviewed safety question is judged to be created as a result of these changes.

OP/0/A/6200/15, Change 4

Description

This change revised the fill and vent sequence of the NF system.

Safety Evaluation

NSM CN-20011 has modified the NF Floor Cooling subsystem. This modification allows the NF Floor Cooling subsystem to be vented separately from the Main NF Header. This change implements this option. The NF glycol system is not required to mitigate the consequences of any accident other than its containment isolation function, which is not affected by this change. This change does not affect any system required for safety. No unreviewed safety question is judged to be created.

MP/0/B/7400/26, New Procedure

Description

This is a new procedure that was developed to provide a method for the controlled removal and replacement of the fuel oil fill (truck) filters, fuel oil recirculation filters and the fuel oil polishing filters.

Safety Evaluation

This procedure assures that the above filters are properly installed so that the fuel filter system will function as designed. The procedure assures equipment availability, reliability and operability through well thought out and evaluated specified steps. The procedure does not adversely effect the FSAR in a significant manner. The procedure does not create an unreviewed safety question. The probability of, consequences of, or possibility of previously evaluated accidents or safety margins is not increased, but rather decreased based on the controlled and deliberate procedural actions.

PT/2/A4200/23B, New Procedure

Description

This procedure takes the actions that were previously performed under PT/2/A/4150/30, NC PORV AND BLOCK VALVE STROKE TEST, and adds stroke timing of the PORVs from closed to open using the N₂ supply.

Safety Evaluation

Prerequisites to verify CLA N₂ pressure is 200 psig and that the high level set, that is not exceeded are included. These are consistent with Technical Specification Interpretation 3.4.9.3. Operation of the NC System as outlined in FSAR Table 1.9-1 II.D.1 and .3, Section 5.1 and the accident analysis of Chapter 15 will not be compromised. No unreviewed safety question is judged to be created.

PT/2/A/4700/010, Change #1

Description

This procedure change will allow testing as long as either the CA Pump 2A Auto-Start

Defeat is in the DEFEAT Mode or the SSPS cabinets are in the Test position with both CA Pump motor breakers racked-out. This change will also give the flexibility (if necessary) to defeat the CA Auto-Start signal on Loss of Both Main Feedwater Pumps.

Safety Evaluation

Either by this procedure or the Operation Unit Shutdown procedure, the CA Pump motor breakers are Racked-out thus eliminating the possibility of starting either CA pump. This change also ensures greater plant configuration control by recording As Found valve position controller setpoint. Thus the probability, consequences or possibility of equipment malfunctioning has not been increased due to this change. This change does not result in an unreviewed safety question.

PT/2/A/4700/010, Change #2

Description and Evaluation

This procedure change does not increase the probability, consequences or possibility of an accident previously evaluated in the FSAR. The sole intent of the jumper that will be placed as a result of this procedure change is to bypass the non-safety, SSF powered, 2/4 Wide Range lo-lo level signals to Open valve 2SA-005. The placement of this jumper is required because of the implementation of NSM-20544 (Digital Feedwater control System Installation) which has the SG wide range level transmitters in a state that has de-energized the contacts which fail 2SASV-0052 open. By placement of this jumper, 2SASV-0052 will be electrically sealed in the energized state, thus allowing valve 2SA-005 to be cycled from the 2AFWPTCP as required by this procedure.

This procedure change does not increase the probability, consequences or possibility of a malfunction of equipment important to safety previously evaluated in the FSAR. The placement of this jumper bypasses the 2/4 SG logic at the output of the Wide Range SG level transmitter. Therefore, the jumper will have no effect on the implementation of NSM-20544.

TN/1/B/1238/00/01A, Initial Issue

Description:

TN/1/B/1238/00/01A replaces level transmitter 1CSLT5840 and adds two current alarm modules for the Unit 1 Upper Surge Tank level indication in accordance with NSM CN-11238. NSM CN-11238 was written to provide more accurate level indication for the Unit 1 Upper Surge Tanks.

Evaluation:

This instrumentation is not safety related. These instruments do not provide any control functions. Level gauge 1CSLG5970 provides level indication while the new level transmitter and alarms are being installed. Implementation of the procedure does

not create an unreviewed safety question.

TN/1/B/1238/00/01B, Initial Issue

Description:

TN/1/B/1238/00/01B installs level gauge 1CSLG5970 for the Unit 1 Upper Surge Tank in accordance with NSM CN-11238. NSM CN-11238 was written to provide more accurate level indication for the Unit 1 Upper Surge Tanks. Level gauge 1CSLG5970 is used to monitor tank level during the installation of 1CSLT5840.

Evaluation:

This instrumentation is not safety related. These instruments do not provide any control functions. Unit 1 Upper Surge Tank level is assured by the capability of overflowing the tank to the Condensate Storage Tank during the implementation of this procedure. The Condensate Storage Tank level could be verified during implementation of this procedure. Implementation of this procedure does not create an unreviewed safety question.

TN/1/A/1054/00/01A, Initial Issue

Description:

Implementation Procedure TN/1/A/1054/00/01A changes the power supply to the hydraulic pressure switch on the main feedwater isolation valve actuator 1CF33 from safety to non-safety.

Evaluation:

The hydraulic pressure switch, whose power supply is changed from safety to non-safety, serves to start and stop the non-safety hydraulic pump motor, and therefore performs no safety function. During work, the valve is isolated in the closed position to ensure containment isolation.

TN/1/A/1054/00/02A, Initial Issue

Description:

Implementation Procedure TN/1/A/1054/00/02A changes the power supply to the hydraulic pressure switch on the main feedwater isolation valve actuator 1CF42 from safety to non-safety.

Evaluation:

The hydraulic pressure switch, whose power supply is changed from safety to non-safety, serves to start and stop the non-safety hydraulic pump motor, and therefore performs no safety function. During work, the valve is isolated in the closed position

to ensure containment isolation.

AFP-CNS-2.002, Rev. 5

Description:

AFP-CNS-2.002, Rev. 5 is Bahnson Service Company "Administrative Field Procedure Preparation and Maintenance". This is the procedure used by Bahnson to prepare, revise, and maintain AFPs which are then used on CNS plant equipment. This revision of the procedure is made to incorporate a Duke Power review of all new AFP creations as well as all changes made to existing procedures. A 10 CFR 50.59 evaluation and full USQ evaluation is required because this is a previously unreviewed procedure and it is described in the FSAR.

Evaluation:

This procedure was compared with Technical Specifications, the FSAR, and design documents to ensure that the actions it controls yields procedures that will comply with established Duke Power and station requirements to maintain plant equipment in its as built/as designed condition.

MP/0/A/7200/05, Change #3

Description:

This change revises the auxiliary feedwater pump turbine corrective maintenance and overspeed trip test procedure to include correct tolerances per the vendor manual.

Evaluation:

The changes were reviewed against approved vendor manuals, design documents, and station procedures to ensure that the corrective maintenance controlled by the procedure will return the turbine to an as built/as designed condition. This ensures turbine compliance with FSAR accident analysis.

MP/0/A/7600/12, Change #5

Description:

This change revised the Walworth and Aloyco Bolted Cover Check Valve procedure. The changes upgraded the procedure to the most recent procedure format, added torque tolerances to a procedure enclosure, added the use of Deacon 3100-N to help obtain a more reliable seal at the body-to-bonnet joint, and added the use of Lock-tite Thread Sealant to help obtain a more reliable seal on the body plug threads.

Evaluation:

The procedure was reviewed against approved vendor manuals, design documents, and

station procedures to ensure that the corrective maintenance controlled by the procedure will return the valve to an as built/as designed condition. These actions will ensure valve compliance with FSAR accident analysis.

PT/1/A/4250/03B, Change #24

Description:

This restricted change was written to allow additional data to be taken during the performance of the CA pump 1B IWP test. This data was required as part of the troubleshooting process following failure of 1CA32, CA pump 1B miniflow recirculation valve.

Evaluation:

The USQ evaluation determined that the conditions of the CA system with respect to maintaining two operable pumps would not differ as a result of the change. Also, all applicable limits and precautions applied to the pump being tested and ensured no errors would occur which could have led to pump damage.

PT/1/A/4250/03B, Change #25

Description:

The main intent of this restricted change was to alter the alignment in which CA pump 1B was started during its quarterly IWP procedure. This change allowed the pump to be started with the full flow line to the UST unisolated. This change was required as an interim solution to problems that were encountered with 1CA32, CA pump 1B miniflow valve, and its ability to pass adequate miniflow during pump start-up.

Evaluation:

The USQ evaluation showed that this change represented an acceptable alternative to the normal practice of starting the pump in miniflow to the UST with the full flow line to the UST remaining isolated until the pump was running.

PT/2/A/4450/13E, Initial Issue

Description:

PT/2/A/4450/13E is the Unit 2 auxiliary feedwater CO₂ system test procedure. This procedure will be performed every three years to verify that the pilot control valves hold pressure and that the selector valves operate, as well as to verify that the piping from the discharge header to the nozzles in the pump pits is unobstructed.

Evaluation:

During this test the CA CO₂ system will be inoperable but a continuous firewatch will

be established as required by the Selected Licensee Commitment Manual action for the CO₂ system out of service. There is also a fire hose station located in the CA pump room so that at no time will any of the equipment protected by the CA CO₂ system be left unprotected.

AFP-CNS-11.002, Rev. 8

Description:

This procedure is Bahnson Service Company's Systems Test and Balance Procedure. This 10 CFR 50.59 evaluation and USQ evaluation is required because this is a previously unreviewed procedure and it is described in the FSAR.

Evaluation:

This procedure was compared with Technical Specifications, the FSAR, and design documents to ensure that the actions it controls comply with all requirements to maintain plant equipment in its as built/as designed condition.

TN/1/A/1272/00/01A-15A, Initial Issue

Description:

These fifteen 10 CFR 50.59 evaluations pertain to NSM CN-11272, Rev. 0, which modifies control circuit wiring on the following fifteen valves: 1NI054A, 065B, 076A, 088B, 1RN144A, 148A, 225B, 229B, 287A, 347B, 437B, 484A, 487B, 1WL867A, and 869B to provide "limit actuated" torque switch bypass contacts which can be adjusted independently of indications or interlocks and provide data to complete MOV testing of the valves referenced above except 1RN437B, 484A, and 487B. The MOV testing information included in the NSM supersedes the old torque switch setting values and replaces them with thrust values. The settings are selected, set, and maintained correctly to accommodate the maximum differential pressure expected on the valve during both normal and abnormal events within the design basis. The new thrust values ensure the valve will operate during normal and abnormal events by setting limitations on total thrust, delta P thrust, and packing load.

Evaluation:

The evaluation demonstrated that a USQ did not exist. A functional verification was required to verify valve operability prior to returning the valves to service.

TN/2/B/0148/00/02A, Initial Issue

Description:

This procedure provides guidance to correct the input to event recorder point 2ER551 for Train B. Previously, this point received input from the pressure switch which

initiates an alarm on low 2CFPTPB bearing lube oil pressure. A relay is added to provide input from the LF pressure switch which initiates the 2CFPTPB trip on lo-lo lube oil pressure.

Evaluation:

The panels, components, and input affected by this procedure are all non-safety. The affected input does not perform a control function. The 2CFPTPB B Train pump is not required to be operable during work. This procedure does not create a USQ.

TN/1/A/3587/CE/01A, Initial Issue

Description:

This procedure removes the doghouse level interlocks and the feedwater isolation interlock to the main feedwater pump discharge isolation valves 1CF10 and 1CF17.

Evaluation:

This procedure controls work activities on Unit 1 during modes 5, 6, and no mode necessary to spare conductors and remove internal wiring. These conductors were previously used to provide the signals used to close valves 1CF10 and 1CF17 by doghouse level and feedwater isolation. The effects on the plant as a result of isolations necessary to perform this modification are listed in the procedure. All components being affected by electrical isolations for this procedure were evaluated and determined to have no effect on the safe operation of Unit 1 in modes 5, 6, and no mode.

TN/5/B/0397/00/01A, Initial Issue

Description:

This procedure implements NSM CN-50397/00 Work Unit 01, which adds three smoke detectors to Room 608 in the auxiliary building. Room 608 contains ventilation equipment, an auxiliary building radwaste air handling supply unit, and an employee break area.

Evaluation:

Fire protection zones disabled during the modification are not required to protect any equipment necessary for plant operation or for a safe shutdown. Implementation of this NSM does not create any new USQ.

TT/1/A/9200/069, Initial Issue

Description:

This procedure strokes the atmospheric dump valves against differential pressure to

verify proper operation of the modifications performed in CN-11224.

Evaluation:

The test does not configure the plant so that equipment operation is jeopardized. If the atmospheric dump valve were to remain open or fail open, the control room operator can isolate the steam leak by closing the associated block valve. The atmospheric dump valves are non-safety related and are not required for safe shutdown of the reactor.

TN/1/A/1247/00/01A, Initial Issue

Description:

This procedure provides instruction for replacing the existing AirPax overspeed monitor for the auxiliary feedwater turbine driven pump (CAPT). The AirPax monitor is replaced with a Dynalco SST 2400 speed switch, along with a Dynalco SDC 2000 power supply converter to provide the necessary power input. In addition, several new loop numbers are provided for various CAPT monitoring functions.

Evaluation:

Implementation of this procedure involves removal of the existing overspeed monitor and installation of the new monitor and enclosure. The new monitor and power supply are qualified as QA-1 devices. Work is conducted when the CAPT is not required to be operable.

TN/1/A/1255/01/01A, Initial Issue

Description:

This procedure implements NSM CN-11255, Rev. 1, which removes valves INV017, 018, 019, and 020 from the NV letdown line. Also, valves INR092, 094, and 095 are deleted. This modification is being performed because diversion of letdown flow to the NR system, accomplished by throttling valve INV018, is no longer an operational requirement.

Evaluation:

The USQ evaluation addressed the impact of this modification on core cooling, spent fuel pool building safety and integrity, containment integrity, the ability of the auxiliary building to maintain negative pressure, and radiation protection concerns. No USQ was determined to exist.

B&WFC FO-001, Initial Issue

Description:

This procedure was developed to provide instructions for the setup, checkout, disassembly, and packing of the B&W Fuel Company ultrasonic examination equipment, the ECHO-330 System.

Evaluation:

The USQ evaluation determined that no adverse impact upon the spent fuel pool cooling capability was generated as a result of using the ECHO-330 System for UT of fuel assemblies.

B&WFC FO-002, Initial Issue

Description:

This procedure was developed to provide instructions for the Fuel Inspection Team in the operation of the B&W Fuel Company ultrasonic testing equipment, the ECHO-330 System.

Evaluation:

The USQ evaluation determined that no adverse impact upon the spent fuel pool cooling capability was generated as a result of using the ECHO-330 System for UT of fuel assemblies.

MP/0/A/7150/04, Change #9

Description:

Retype #8 of this procedure for KC pump corrective maintenance was initiated to incorporate several miscellaneous enhancements. It also incorporates findings from QA Audit No. NP-91-15 (CN) (24). Also, numerous other changes which do not affect technical content were made for the sake of clarity, step continuity, and overall procedure enhancement. The resulting procedure provides the corrective maintenance method for pump disassembly, inspection and replacement of parts, reassembly, reinstallation, and alignment of the KC pumps.

Evaluation:

The changes made by this rewrite were reviewed in reference to approved vendor manuals, design documents, and station procedures to ensure that the maintenance activities return the equipment to the intended as built/as designed condition.

MP/0/A/7600/38, Change #2

Description:

Retype #3 of the Borg-Warner Wing Check Valve Low Pressure maintenance procedure upgrades the procedure to the latest format. Also, this retype incorporates

steps for removal and replacement of the disc stud.

Evaluation:

This procedure was reviewed against approved vendor manuals, design documents, and station procedures to ensure that the corrective maintenance controlled by the procedure returns the valve to as built/as designed conditions.

PT/0/A/4150/31, Initial Issue

Description:

This 10 CFR 50.59 evaluation covers the initial issue of the controlling procedure for ultrasonic testing of fuel assemblies.

Evaluation:

This procedure was reviewed and determined to not require any off-normal operation of safety equipment and determined to not result in a USQ.

PT/1/A/4400/06C, Change #3

Description:

The KC Heat Exchanger 1A Heat Capacity Test is run to determine the heat removal capability of the KC Hx and does not affect its operability during the test.

Evaluation:

KC Train 1A is aligned for normal operation during the test. Also, RN is aligned for normal operation. If KC and RN temperatures are not stable, 1RN291 can be throttled by use of a regulated air supply in an effort to stabilize temperatures.

PT/1/A/4400/06D, Change #3

Description:

The KC Heat Exchanger 1B Heat Capacity Test is run to determine the heat removal capability of the KC Hx and does not affect its operability during the test.

Evaluation:

KC Train 1B is aligned for normal operation during the test. Also, RN is aligned for normal operation. If KC and RN temperatures are not stable, 1RN351 can be throttled by use of a regulated air supply in an effort to stabilize temperatures.

PT/1/A/4700/010, Initial Issue

Description:

This procedure demonstrates the functional capability of the auxiliary feedwater pump turbine control panel controls. Functional capability of components and electrical circuitry associated with the Unit 1 AFWPTCP is verified by automatic and manual manipulations. This test also confirms that when control is in LOCAL, main control room control is isolated for all components associated with the 1AFWPTCP and CA autostart circuits are defeated.

Evaluation:

This procedure can be performed in modes 5, 6, or no mode. During the test, the AFWPTCP and the systems manipulated during this test are not required for plant operation. Some of the valves manipulated are required for containment closure requirements. To satisfy these requirements, the valve lineup enclosure has other valves in the lineup closed or there is a note within the procedure to verify containment integrity/closure requirements are being met.

TN/1/A/0980/00/03A, Initial Issue

Description:

This is the procedure for implementation of NSM CN-10980, Rev. 0, Work Unit 03. It provides guidelines for replacing the GE turbine supervisory instrumentation (TSI) system with a new SKF system.

Evaluation:

The TSI system is not described in detail in the FSAR; it provides no reactor safety related function. The system consists of a set of probes and monitors that measure bearing vibration, shell expansion, thrust bearing wear, and other indicators of turbine condition during all modes of operation. The system initiates alarms in the control room on high bearing vibration, thrust bearing wear, high differential expansion, etc. and provides a turbine trip in the event of excessive thrust bearing wear.

TN/1/A/1149/00/02A, Initial Issue

Description:

This TN implements the D/G 1A portion of NSM CN-11149. This NSM replaces existing pneumatic devices that provide the non-safety related D/G trips with electronic components. The NSM also replaces solenoids used for pneumatic logic control in the diesel engine control panel with electronic devices.

Evaluation:

This procedure is performed with Unit 1 in modes 5, 6, or no mode. Work is performed when D/G 1A is inoperable due to maintenance and Unit 1 is aligned in accordance with TS 3/4.3.8.1.2. The modification does not change the control logic of

the D/G.

TN/1/A/1149/00/03A, Initial Issue

Description:

This TN implements the D/G 1B portion of NSM CN-11149. This NSM replaces existing pneumatic devices that provide the non-safety related D/G trips with electronic components. The NSM also replaces solenoids used for pneumatic logic control in the diesel engine control panel with electronic devices.

Evaluation:

This procedure is performed with Unit 1 in modes 5, 6, or no mode. Work is performed when D/G 1B is inoperable due to maintenance and Unit 1 is aligned in accordance with TS 3/4.3.8.1.2. The modification does not change the control logic of the D/G.

PT/1/A/4200/23B, Initial Issue

Description:

PT/1/A/4200/23B, NC PORV Stroke Test Using N₂, is a new procedure. It takes the actions that were performed under PT/1/A/4150/30, NC PORV and Block Valve Stroke Test, and adds stroke timing of the PORVs from closed to open using the N₂ supply. The procedure is primarily used to ensure PORV operability prior to LTOP conditions. It can also be used to retest a PORV after maintenance work has been performed. PORVs are stroked one at a time. The associated block valve is closed prior to stroking the PORV.

Evaluation:

As a result of implementing this procedure, operation of the NC system as outlined in FSAR Table 1.9-1 II.D.1 and 3, Section 5.1 and the accident analysis of Chapter 15 is not compromised. No USQ is created.

OP/2/A/6200/27, Rev. 2

Description:

This is the operating procedure for sampling local primary sample points. This revision provides an enclosure to recirculate the BAT with the boric acid recirculation pump in order that a representative sample may be obtained.

Evaluation:

No USQ is created as a result of this evaluation. This procedure revision will provide an additional margin of safety due to the increased reliability of the BAT sample.

HP/0/B/1009/09, Change #3

Description:

HP/0/B/1009/09 is the Guidelines for Accident and Emergency Response procedure. This change added procedural steps to start EMF 55A and B upon activation of the TSC. It also added steps to stop EMF 55A and B upon securing the TSC.

Evaluation:

By cycling these sample devices off during periods of non-use, the pumps will have a longer life and thus provide higher availability in times of need.

HP/0/B/1000/10, Change #15

Description:

HP/0/B/1000/10 is the Determination of Radiation Monitor Setpoints procedure. These changes removed L & P that permitted calculating setpoints outside of procedure. They altered guidance on operation of "Trip Adjust" switch to require slowly returning switch to operate position as a result of PIR 0-C91-0178. They added guidance on how to calculate setpoints for EMFs 33, 45A, and 45B when activity is below sensitivity of monitor. They removed "+ background" from setpoint calculation for EMFs 35, 36, 37, and 58 (allowing setpoint to remain constant over time, reducing likelihood of improper setpoint being calculated or entered). Isotopic correlation factors for 1/2 EMF 48 were added. This allows EMF 48 setpoints to be calculated more accurately by taking into account response from each isotope. Methodology to calculate EMF 48 setpoint using new correlation factors was also included.

Evaluation:

Technical Specifications associated with these EMFs were not impacted by these changes. The FSAR is consistent with these changes with one exception: The EMF 48 setpoint is and has been based on a significant change in NC gross activity. FSAR Section 11.5.1.2.1.7 implies EMF 48 setpoint is based on E-bar (as E-bar is defined in Technical Specifications). It is impractical to utilize EMF 48 in the manner described in the FSAR. EMF 48 setpoint is based on a "half-decade" increase in gross activity. Upon alarm, laboratory analysis is utilized to determine the extent, if any, of fuel cladding failure. This meets with the design basis of the NC monitor to "alert operators to possible fuel clad failure". A revision to the FSAR to indicate the basis for the NC monitor setpoint is being processed.

TT/1/A/9200/65 and TT/2/A/9200/68, Initial Issue

Description:

These two procedures govern the retest for NSMs CN-11287 and CN-20682, respectively (CA system flow optimization and runout protection). These TTs will retest the operational readiness of the flow optimization and runout protection circuitry following implementation of the above modifications.

Evaluation:

At all times during the performance of these TTs, the turbine-driven CA pump and one motor-driven CA pump are operable (see the preceding entry for compensatory action). Therefore, no USQ exists.

TN/1/A/1287/00/01A&02A and TN/2/A/0682/00/01A&02A, Initial Issue

Description:

These four evaluations govern wiring changes to the plant as part of NSMs CN-11287 and CN-20682. The NSMs modify the control circuits for automatic runout protection and flow optimization by deleting some of the cross-train interaction in these circuits. The modifications ensure that the control circuits meet the single failure criteria. These four procedures apply to 1AFWPTCP, 1EATC20, 2AFWPTCP, and 2EATC20, respectively. They also revise wiring at 1CAPS5131, 1CAPS5141, 2CAPS5131, and 2CAPS5141, respectively.

Evaluation:

Refer to the above entry for compensatory actions required in conjunction with these modifications. It has been previously noted that required CA system operability is being maintained and that no USQ exists.

PT/2/A/4250/13C, Change #4

Description:

The items included in this change are a result of changes to the CA system test acceptance criteria (TAC) sheets per CE-3505. These TAC sheet changes have modified the acceptable flows from the Unit 2 CA turbine-driven pump to all S/Gs slightly.

Evaluation:

The revised acceptance criteria are more restrictive than the original due to the narrower acceptable pump strength band that has been established.

TN/1/A/1231/00/02A and TN/1/A/1232/00/02A, Initial Issue

Description:

These two evaluations pertain to the procedures for implementing NSMs CN-11231 and

CN-11232 (Work Unit 02). These NSMs add piping and controls that allow each compressor package to charge both air storage tanks for D/G engine 1A and 1B, respectively. The new piping and control arrangement allows the engines to be operable with only one compressor package. The NSMs also install local annunciators that will alarm on low air storage tank pressure.

Evaluation:

This work is being performed with Unit 1 in modes 5, 6, or no mode. The new impulse lines are safety related and the instruments are seismically mounted. Mechanical work includes adding crossover piping, hanger modification, and valve addition and relocation.

MP/0/A/7450/01, Retype #2

Description:

This is the Joy Vanaxial fan corrective maintenance procedure. This retype: 1) upgraded the procedure to the currently used format, 2) added additional line items to assist technicians in performing work, and 3) changed the body of the procedure to provide more detailed instructions. The main section of the procedure also covers additional areas not previously addressed that may occur while performing blade adjustment and corrective maintenance on the fans. Detailed drawings have been added to the enclosures to provide additional clarification on the assembly of the fans and the individual part names.

Evaluation:

This procedure was compared with the FSAR, Technical Specifications, design documents, and station procedures to ensure that the actions it controls will maintain the fans in their as built/as designed condition. Therefore, no USQ exists.

MP/0/A/7450/06, Change #2

Description:

This procedure governs leak testing and repair and evacuation of HVAC systems. This procedure has been enhanced to provide more detailed guidance to technicians for performing maintenance on safety related chillers. Changes include changing to the new format, adding references, adding detail to help technicians, and adding enclosures to help document work done under this procedure.

Evaluation:

Maintenance performed under this procedure was reviewed against approved vendor manuals, design documents, and station procedures to ensure that maintenance controlled by this procedure will return the chiller to as built/as designed conditions so that compliance with FSAR accident analysis is assured.

PT/1&2/A/4400/03G, Initial Issue

Description:

These procedures were developed to alter the control circuitry of the KC system reactor building non-essential supply/return header isolation valves (1/2KC-003A, 1/2KC-018B, 1/2KC-228B, and 1/2KC-230A). Electrical leads are lifted that will defeat the above mentioned valves' automatic closure signals upon a containment hi-hi pressure (Sp) and/or a safety injection (Ss) signal in coincidence with a lo FWST signal. This is to support KC Hx cleaning. After completion of cleaning, the above leads are relanded to their as found condition. Retest/functional verification of properly relanded leads are verified in these procedures.

Evaluation:

Action statements for all Technical Specifications associated with the KC system and all ESF systems will be abided by. Implementation of these procedures does not have an adverse impact on flow and heat removal capacity for any loads normally aligned to the on-line KC train or any loads aligned to the on-line KC train as a result of carrying out these procedures. It was analyzed that the flow required in the worst case flow scenario for the KC pumps while these procedures are in place is well within the capacity of the two KC pumps that will be in service. Furthermore, it was shown that the corresponding heat demand is not degraded. Retest/functional operability of leads restored will be verified. Operations procedures OP/1&2/A/6400/05 will be the controlling documents for the implementation/removal sections of these procedures. The alignment of OP/1&2/A/6400/05 (KC Cross Train Alignment for KC Heat Exchanger Cleaning Enclosures) are only placed in service during modes 1, 2, or 3 to ensure minimum heat load on the KC system.

TN/2/A/0525/00/01A-08A, Initial Issue

Description:

These eight 10 CFR 50.59 evaluations are for procedures which support implementation of NSM CN-20525, Rev. 0 and apply to work units 01 through 08, respectively. The auxiliary shutdown panel supply units (ASPSUs) currently use RN water as the condenser cooling water. This RN supply is subject to corrosion of the small diameter supply piping and buildup of silt within the piping. These problems lead to a degradation of the cooling effectiveness of the ASPSUs. The NSM will provide a primary supply of KC water to the ASPSUs with an RN supply as a backup water source to be used only during an accident situation when the loads on KC prevent its use for the ASPSUs due to unsuitably high temperatures. The 10 CFR 50.59 evaluation for each individual work unit is discussed below:

Work Unit 01:

This TN is used to install the new KC supply and return piping/supports along with tying into the RN backup supply pipe and RC return pipe. The old RN supply and return piping located between the ASPSUs and the first isolation valves is deleted under this work unit.

Work Unit 02:

This TN is used to delete the remaining piping, supports, and valves which used to supply RN water to flush 2EMF44. This piping was previously capped under NSM CN-20606 Rev. 0.

Work Unit 03:

This TN is used to install a portion of the new RN A Train supply piping for the ASPSU. Part of the old RN supply piping located between 2RN991 and the 6" RN header is deleted under this work unit.

Work Unit 04:

This TN is used to install a screwed plug into the half coupling that is presently used to connect the 2" RN A Train ASPSU return piping to the 20" RN header. A portion of the old 2" RN return piping and a support located in the CA pump room is deleted. Also, a section of the old 2" RN return piping, located in a location that is difficult to reach, is capped on both ends instead of trying to remove it from the plant.

Work Unit 05:

This TN is used to install the new KC supply and return piping/supports along with tying into the RN backup supply pipe and RC return pipe. The old RN supply and return piping located between the ASPSUs and the first isolation valves is deleted under this work unit.

Work Unit 06:

This TN is used to install a portion of the new RN B Train supply piping for the ASPSU. Part of the old RN supply piping located between 2RN101 and the 6" RN header is deleted under this work unit.

Work Unit 07:

This TN is used to install a screwed plug into the half coupling that is presently used to connect the 2" RN B Train ASPSU return piping to the 20" RN header. A portion of the old 2" RN return piping located in the CA pump room is deleted.

Work Unit 08:

This TN is used to install the new piping and support which ties the ASPSU-2A and 2B return piping into the RC/CA system piping. This procedure also performs the flow verifications for the piping/components installed under work units 01-08. Adequate operation of the ASPSUs is also verified under this work unit.

Evaluation:

Implementation of these TNs occurs during modes 5, 6, or no mode. All work, isolations, and testing associated with these TNs is controlled either by scheduling or the use of approved station procedures. KC system volume is not adversely affected by the post-modification testing performed. The safety related aspects of all involved systems is maintained during implementation of these work units.

PT/1/A/4250/03C, Change #53

Description:

The turbine-driven CA pump performance test procedure was changed to: 1) provide guidance in the performance of steps in the event miniflow cannot be verified and the possibility of pump damage is present, 2) ensure adequate corrective action is taken in the event of pressure switch failure, and 3) ensure numbering consistency.

Evaluation:

The major intent of this change ensures that proper operation of the pump miniflow valve (1CA20) is verified before full flow is established to the UST. In turn, this ensures that if foreign material reaches the miniflow valve, thus affecting its operation, the material can be captured and identified before it is flushed back to the UST.

TN/2/A/0487/00/02A, Change #1

Description:

NSM CN-20487, Rev. 0 provides an alternate recirculation loop for the BAT in the chemical control, purification, and makeup subsystem of the NV system. A recirculation pump with isolation valves, drain valves, and instrumentation is added for BAT recirculation. The pump employs suction and discharge from existing BAT connections. This new recirculation loop provides a more thorough and uniform mixing of the BAT contents. The change to this TN allows portions of the modification work identified in the procedure to be performed prior to a Unit 2 outage.

Evaluation:

Installation of the pump does not affect the operation of any associated system. No operational concerns are imposed. No new failure modes or operating characteristics are introduced by this change.

PT/0/A/4400/08A, Change #7

Description:

A change to the Train A RN flow balance procedure was required as a result of a low flow condition on the 1A NS Hx. The change required weekly monitoring of SNSWP temperature to verify a temperature of less than 82F at elevation 557'.

Evaluation:

This change was required for conditional operability of the RN system. This change remained in effect until the NS Hx was restored to unrestricted operating conditions.

PT/2/A/4250/03E, Change #12

Description:

This restricted change to the CA system discharge control valve throttling procedure was made to allow balancing CA pump 2A flows while at 50% to 85% power level.

Evaluation:

Three concerns were evaluated as a result of this change. They are: 1) calculation of reactor power, 2) isolation of cooling flow to the upper nozzles, and 3) injection of cool water into the steam generators. All concerns were determined to be adequately addressed.

PT/2/A/4200/21A, Change #10

Description:

This change to the KC valve inservice test procedure was made to prevent the potential for KC pump runout in case of blackout while either 2KC-56A or 2KC-81B is open for stroke time testing. This will preclude any other single failure from rendering the KC system inoperable.

Evaluation:

This change results in providing more reliable service to engineered safeguards loads after an accident. Hence, no USQ is involved.

TN/2/A/2686/CE/01A-04A, Initial Issue

Description:

These four 10 CFR 50.59 evaluations pertain to procedures for implementation of exempt change CE-2686, work units 01 through 04, respectively. Work unit 01 replaces manual loaders 2CAML0360, 0400, 0440, 0480, 0520, 0560, 0600, and 0640 which provide manual control of valves 2CA36, 40, 44, 48, 52, 56, 60, and 64 and are adjusted to regulate CA flow to the S/Gs. Work unit 02 replaces manual loaders 2CAML0561 and 2CAML0601 which provide for manual control of valves 2CA56 and 2CA60 and are adjusted to regulate CA flow to S/G 2A and 2B from CA pump 2A. Both are located on ASP A. Work unit 03 replaces manual loaders 2CAML0401 and 2CAML0441 which provide for manual control of valves 2CA40 and 2CA44 and are adjusted to regulate CA flow to S/G 2C and 2D from CA pump 2B. Both are located

on ASP B. Work unit 04 replaces manual loaders 2CAML0361, 0481, 0521, and 0641 which provide for manual control of valves 2CA36, 48, 52, and 64 and are adjusted to regulate CA flow to all four S/Gs. All manual loaders are replaced with Moore Products 352B single loop digital controllers.

Evaluation:

The new controllers are programmed to function as manual loaders, thereby providing the same function as existing manual loaders. All work is performed with Unit 2 in modes 5, 6, or no mode. CA is not required during these modes. Since the controllers are programmed to function as manual loaders, there are no tuning requirements, and since the required IPs verify proper valve response, no other testing is required. All testing is completed prior to entering mode 4 to ensure proper system operation before returning it to service.

TN/2/A/2687/CE/01A, Initial Issue

Description:

This evaluation pertains to the procedure for implementation of exempt change CE-2687 work unit 01. This work unit replaces manual loader 2VYML0190 with a Moore Products 352B single loop digital controller. This manual loader provides manual control of valve 2VY19, which is adjusted to regulate air flow from containment into the annulus when the containment hydrogen purge system is being used.

Evaluation:

The new controller is programmed to function as a manual loader, thereby providing the same function as the manual loader. All work in this procedure is performed with Unit 2 in modes 5, 6, or no mode. The containment hydrogen purge system is not required during these modes. Since the controller is programmed to function as a manual loader, there are no tuning requirements, and since the required IP verifies proper valve response, no other testing is required. All testing is completed prior to entering mode 4 to ensure proper system operation before returning it to service.

TN/2/A/2688/CE/01A&02A, Initial Issue

Description:

These evaluations pertain to the procedures for implementation of exempt change CE-2688, work units 01 and 02, respectively. Work unit 01 replaces manual loader 2NVML2940 and controllers 2NVSS5571 and 2NVSS5651 with Moore Products 352B single loop digital controllers. The manual loader provides for manual control of valve 2NV294 and is adjusted to regulate charging flow from the NV pumps. Controller 2NVSS5571 operates valve 2NV148, and controls letdown pressure downstream of the letdown Hx to prevent flashing. Controller 2NVSS5651 operates valve 2NV309, and controls seal water injection flow to the NC pumps. All are located on ASP A. Work

unit 02 replaces manual loader 2NVML1241 and controller 2NVSS5652 with Moore Products 352B single loop digital controllers. Manual loader 2NVML1241 provides for manual control of valve 2NV124B, which is adjusted to maintain excess letdown pressure to prevent exceeding the allowable back pressure on the NC pumps' #1 seals. Controller 2NVSS5652 operates valve 2NV309 and controls seal water injection flow to the NC pumps. Both are located on ASP B.

Evaluation:

The new controllers are programmed to function as single loop controllers for 2NVSS5571 and 2NVSS5651 and as a manual loader for 2NVML2940. Also, the new controllers are programmed to function as a single loop controller for 2NVSS5652 and as a manual loader for 2NVML1241, thereby providing the same function as the manual loader and controller. All work in these procedures is performed with Unit 2 in modes 4, 5, 6, or no mode. Control of letdown, charging, or NC seal water flow from 2ASPA is not required in these modes. In addition, control of excess letdown or NC seal water flow from 2ASPB is not required in these modes. Since the manual loaders have no tuning requirements, and the required IPs verify proper valve response, no other testing is required for them. For the controllers, values of flow/pressure expected during normal operating conditions are used as setpoints to verify the tuning constants provide adequate control. All testing is completed prior to entering mode 3 to ensure proper system operation before returning it to service.

TN/2/A/3442/CE/01A&02A, Initial Issue

Description:

These two evaluations pertain to the procedures for implementation of exempt change CE-3442, work units 01 and 02, respectively. CE-3442 installs pressure loops in the discharge side of the ND pump downstream of check valves 2ND10 and 2ND44. These procedures provide guidelines for installing pressure loops 2ND5260 and 2ND5270 for Trains A and B ND, respectively.

Evaluation:

These procedures are implemented with appropriate sections of the respective train of ND drained while Unit 2 is in modes 5, 6, or no mode when ND is not required operable. This is controlled by Operations and the outage schedule. Upon completion of installing the respective instrument loop, a visual check is performed to verify no leaks exist in the new instrumentation. The new gauge is also calibrated by the appropriate instrument procedure. No hydro is required on this new instrument tubing.

TN/2/B/0621/09/01A, Initial Issue

Description:

This procedure provides guidance to implement NSM CN-20621. The pneumatic

instrument loop 2VQPT5040 is removed and replaced with an electronic instrument loop. Pneumatic instruments 2VQPT5040, 2VQPS5040, 2VQPS5041, 2VQPS5042, 2VQPS5043, and 2VQPE5040 are removed from the annulus. A new electronic pressure transmitter (2VQPT5040) is installed in the electrical penetration room along with two current alarms (2VQEM5040 and 2VQEM5041) installed in panel 2ATC21. A high pressure tap is made to a NS impulse line and a low pressure tap is vented into the annulus. Also, a containment vessel penetration for the instrument impulse line is capped. Cables 2VQ515, 2VQ516, 2VQ538, and 2VQ545 are voided. Cables 2VQ552 and 2VQ553 are pulled and terminated.

Evaluation:

The majority of this procedure is implemented while Unit 2 is in no mode. Containment integrity does not have to be maintained while in no mode. Also, a C leak rate and structural integrity test for the tubing tie-in and a structural integrity test for the penetration cap is performed. A ventilation system performance test on the annulus after opening and closing an annulus penetration for venting the low pressure tap is performed. Also, a compensatory action is required which provides specific instructions when opening and closing firestops in the annulus. A compensatory action is required which provides specific instructions when opening and closing firestops in the control room floor. All components affected by electrical isolations for this procedure were evaluated and determined to have no effect on the safe operation of Unit 2 in no mode. No isolations are required for the work which is performed with Unit 2 in modes 5 or 6.

TN/2/A/0541/00/02A, Initial Issue

Description:

This TN replaces the Unit 2 turbine controls system with a new digital turbine controls system in accordance with NSM CN-20541, Rev. 0. The new system will help provide greater unit reliability, flexibility, ease of maintenance, ease of valve calibration, and allow for system expansion.

Evaluation:

Work activities within this procedure required that system control functions be disabled. Therefore, the work was performed with the turbine shut down and Unit 2 in modes 4, 5, 6, or no mode. Required compensatory actions were implemented to ensure that the VC system was maintained operable (work required pulling cables through control room firestops, opening the control room doors, etc.). All main control board devices affected had stickers placed on them to ensure the operators were aware of the affected control board indications. Isolations in the procedure were made to ensure that both equipment important to safety and personnel safety were maintained. All affected systems were thoroughly tested prior to returning them to service.

TN/2/A/0544/00/02A, Initial Issue

Description:

This procedure performed numerous wiring changes to the plant as part of the outage work associated with NSM CN-20544, Rev. 0. This NSM replaced the feedwater control system for Unit 2 with a new digital feedwater control system (DFCS).

Evaluation:

This procedure was performed while Unit 2 was in modes 4, 5, 6, or no mode. Compensatory actions were developed such that VC was maintained operable, as the work required pulling cables through control room firestops. Main control board chart recorders and gauges affected had out of service stickers placed on them to ensure that operators were aware of the affected indications. All of the wiring changes in PCS cabinets were done during no mode when the cabinets were not required to be operable. Isolations were made to ensure that both equipment important to plant safety and personnel safety were maintained. Following implementation of the procedure, all of the DFCS input devices were calibrated and tested. All devices in the PCS cabinets which were relocated to implement this modification were functionally verified. Calibrations were performed on all valves and transmitters affected by this procedure to ensure proper operation.

OP/1/A/6350/05, Change #19

Description:

This is the alternate AC power sources procedure. This change added an enclosure to the procedure to allow the transfer of shared MCCs; hot bus transfer during 2ECC4. The change permitted the transfer from normal to alternate power source to occur under hot bus conditions.

Evaluation:

The shared MCC affected by this change is part of the non-class 1E AC power system. The issue of hot bus transfer prevented unnecessary interruption of power to equipment.

MP/0/A/7150/99, Initial Issue

Description:

This MP is the procedure for steam generator nozzle dam installation and removal.

Evaluation:

Installation/removal of the nozzle dams does not degrade any primary system pressure boundary. The process has no effect on the integrity of any plant material. The

process has no effect on the S/G's ability to act as a piece of equipment important to safety. The process does not cause any change to the material condition of the S/Gs.

PT/0/A/4400/08D, Initial Issue

Description:

This procedure allows for the performance of the RN pump portion of the RN flow balance without the need to complete the entire RN flow balance. In this procedure, only the pump in test is placed in service.

Evaluation:

This procedure is considered to be conservative because the pump discharge pressure is required to be at or below the previous RN flow balance discharge pressure. Pump flow parameters are also addressed in the procedure.

TN/2/A/0642/00/19A, Initial Issue

Description:

This TN is the implementation procedure for NSM CN-20642, Rev. 0, work unit 19. This NSM modifies the control circuit wiring on 2CA002, 004, 006, 2KC003A, 018B, 228B, 230A, 305B, 315B, 320A, 332B, 333A, 338B, 424B, 425A, 2NF233B, 2RF389B, 447B, and 457B to provide "limit actuated" torque switch bypass contacts which can be adjusted independently of indications or interlocks and provide data to complete MOV testing of the valves. This procedure controls work being performed on valve 2RF457B.

Evaluation:

During work, the valve is left in its normal (open) position to keep the annulus sprinkler system operable. Prior to returning the valve to service, a functional verification and retest are performed to verify valve operability.

PT/2/A/4200/01V, Initial Issue

Description:

This procedure is the containment penetration check valve back flow test. This procedure was written to back flow test the NW check valves and is basically a leak rate test. Each valve (or pair of valves) is tested by applying pressure to the downstream side and measuring the flow rate of dry air needed to maintain the test pressure.

Evaluation:

This test will be performed during RFOs when the NW system is not required to be

operable. There are sufficient steps in the test procedure to return the valves to their as found positions.

PT/2/A/4700/10, Initial Issue

Description:

This procedure demonstrates the functional capability of the CA turbine control panel controls. Functional capability of components and electrical circuitry associated with the Unit 2 AFWPTCP is verified by automatic and manual manipulations. This test also confirms that when control is in "local" (2AFWPTCP), main control room control is isolated for all components associated with the 2AFWPTCP as well as CA auto start circuits defeated.

Evaluation:

This procedure is performed in modes 4, 5, 6, or no mode. Components manipulated during this test are not required in these modes. Containment integrity/closure requirements are addressed in this procedure for the cycling of containment isolation valves. Appropriate steps are taken within this procedure to prevent any malfunction of equipment.

PT/2/A/4200/09, Change #66

Description:

This PT is the engineered safety features actuation periodic test. This evaluation governs fifteen changes which were made to various sections of this procedure. The most significant of the changes was to modify the electrical alignment in Sections 12.1 and 12.4 so that the KC, NS, ND, NI, CA, and KF pumps and VC/YC compressor are running. This is so that the pumps will be load shed during the test.

Evaluation:

The above change does not affect the described systems in a significant manner since the pumps would run after the actuation signal regardless of whether they are running prior to the test.

PT/2/A/4350/02E, Change #39

Description:

This PT is the CA, CF, and turbine interlocks periodic test. Several of the more significant changes to this procedure are to: 1) add requirement for UST level > 50% in the motor driven CA pump autostart sections and change the previous requirement in the turbine driven CA pump autostart sections from 90% UST level to 50%, 2) add steps within the motor driven CA pump autostart sections to require the motor-breaker

for the pump being run to be racked in-open as a prerequisite, 3) delete the requirement to open the four links to prevent CF pump trips on hi-hi S/G level from the enclosure for feedwater isolation on hi-hi doghouse level, 4) add a prerequisite requiring source range instrumentation to be operable for certain enclosures in which the reactor trip breakers are cycled, 5) add blanks requiring independent verification by Operations for steps requiring a CA pump motor-breaker or a CA system autostart defeat button to be manipulated, 6) delete the requirement to take SSPS to test for the train not being tested and add steps to require manipulation of the "P-14 Block" switches in order to serve the same purpose for the enclosure on feedwater isolation on hi-hi S/G level, and 7) add supplemental enclosures to provide guidance in aligning the turbine stop and intercept valves for each of the enclosures which test the main turbine trip function.

Evaluation:

The 10 CFR 50.59 evaluation for these changes determined that the availability of required instrumentation will be enhanced, the possibility of inadvertent safety system actuation's will be reduced, and proper configuration control of equipment will be maintained. No USQ was determined to exist.

MP/0/A/7300/03, Retype #3

Description:

The scope of the procedure was increased to embrace the complete Pneumatic Control Valve Actuator and flow rotometer.

Evaluation:

The incorporation of the complete Pneumatic Control Valve Actuator Assembly, flow rotometer, and flow settings into the procedure is to organize and consolidate closely interrelated component sequences under one procedure. They are recommendations and requirements of the manufacturer's instruction manuals. The purpose of these additions is to perform deliberate and controlled steps in the removal, replacement and corrective maintenance of these components. This will insure continued as designed operational performance and maintenance of material/equipment excellence. The changes do not adversely effect any FSAR section referenced in a significant manner. They do no adversely effect equipment operability and they do not create an unreviewed safety question.

MP/0/A/7400/46, Change #1

Description:

The scope of the procedure was expanded to embrace the complete Jacket Water Pump Gear Assembly.

Evaluation:

The incorporation of the JW Gear Carrier Assembly into the procedure is to organize and consolidate closely interrelated component sequences under one procedure. These are recommendations and requirements of the manufacturer's instruction manuals. The purpose of these additions is to perform deliberate and controlled steps in the removal and replacement of these components. This will insure continued as designed operational performance and maintenance of material/equipment excellence. The changes do not adversely effect equipment operability and they do not create an unreviewed safety question.

PT/2/A/4200/13E, Change #30 and PT/1/A/4200/13E, Change #50

Description:

This change allows for valves CA-46B and CA-58A to be stroke tested from open to closed as well as from closed to open.

Evaluation:

Sections 10.4.9.1 through 10.2.9.3 and 13.5 of the FSAR were consulted. It is necessary to time these valves in both directions because the valves are part of CA pump runout/flow optimization circuitry and are subject to receive a signal to close following CA system initiation to enable the system to provide minimum system flow to SG and/or provide pump runout protection. The required open to closed stroke time is 20 seconds as specified per new test acceptance criteria. The required closed to open time remains 15 seconds. There is no unreviewed safety question associated with this change.

HP/0/B/1009/09, Change #3

Description

This procedure change added steps to start EMF55 A and B upon activation of the TSC and to stop EMF55 A and B upon securing the TSC.

Evaluation

By cycling these sample devices off during periods of non-use, the pumps will have a longer life and thus provide higher availability in time of need. Technical Specifications 3.3.3.1 and 3.3.3.6 were checked but no reference was made to 55 A and B not to the function they perform. No unreviewed safety question was judged to exist.

OP/2/A/6200/27, Revision #2

Description

This procedure revision provides an enclosure to recirculate the BAT with the Boric

Acid Recirculation Pump.

Evaluation

This procedure revision provides steps for taking a Boric Acid Tank sample. The probability of an accident scenario previously evaluated in the FSAR is not increased. This procedure will not worsen the consequences of the previously evaluated accident. No new accident scenarios are created. All equipment operations have been addressed in previous evaluations. The equipment that has been added per the Boric Acid Recirculation Pump modification has been addressed in the modification 10 CFR 50.59. The BAT boron concentration will not be diluted below the Technical Specification limit of 7000 ppm. Actually, this revision will provide an additional margin of safety due to the increased reliability of the BA sample.

HP/O/B/1000/10, Changes 0-15

Description

This change removed L&P that permitted calculating setpoints outside of procedure, added guidance on how to calculate setpoints for EMF's 33, 45A, and 45B when activity is below sensitivity of monitor and removed the "plus background" from setpoint calculation for EMF's 35, 36, 37 and 58, added isotopic correlation factors for 1 and 2 EMF48.

Evaluation

The change that removed L&P that permitted calculating setpoints outside of procedure is an administrative change. The added guidance on how to calculate setpoints for EMF's 33, 45A, and 45B when activity is below sensitivity of monitor came from FSAR Tables 11-190 and 11-20. Removal of the "plus background" from setpoint calculation for EMF's 35, 36, 37 and 58 results in a conservatively lowered setpoint. The changes associated with EMF48 utilizes a setpoint methodology that more accurately reflects the expected response of the radiation monitor to reactor coolant activity. There is no unreviewed safety question associated with this change.

PT/0/A/4150/19A, New Procedure

Description

This procedure consists of actions previously directed by PT/0/A/4150/19. This entail the dilution of the NC system with shutdown banks inserted, an activity which will now be permissible not only for initial reactor startup following refueling, but at any time during cycle operation that it is not permissible to dilute the NCS to ECB concentration with the shutdown banks withdrawn, due to inability to remain in Mode 3 due to xenon decay.

Evaluation

The approach to this evolution taken by this procedure is at all times conservative with respect to responsible reactivity management and Nuclear Safety concerns. Creation of this procedure will not increase the probability or the consequences of any accident of nuclear safety related equipment malfunction, either previously analyzed or unanalyzed by the FSAR. The margin of safety as defined in applicable Tech Spec bases will not be reduced in any way, and no unreviewed safety question is created by this procedure.

PT/0/B/4600/21, New Procedure

Description

This is a new procedure designed to verify the accuracy of the effluent radiation monitors.

Evaluation

The only consequences associated with this procedure is that Tech Spec required monitors may be taken out of service during testing. Backup damping methods are in place that adequately replace the monitor function and to not increase the probability of an accident or reduce any margins of safety. There is no unreviewed safety question associated with this procedure.

TN/2/A/0642/00/01A - 09A, Initial Issue

Description

These nine 10 CFR 50.59 evaluations are for procedures which support implementation of NSM CN-20642, Rev. 0 and apply to work units 01A through 09A, respectively. The NSM will modify the control circuit wiring on 2CA002, 004, 006, 2KC003A, 018B, 228B, 230A, 305B, 315B, 320A, 332B, 333A 338B, 424B, 425A, 2NF233B, 2RF389B, 447B, and 457B to provide "limit actuated" torque switch bypass contacts which can be adjusted independently of indications or interlocks and provide data to complete MOV testing of the valves. The MOV testing information included in the NSM will supersede the old torque switch setting values and replace them with thrust values. The settings are selected, set, and maintained correctly to accommodate the maximum differential pressure expected on the valve during both normal and abnormal events within the design basis. The new thrust values ensure the valve will operate during normal and abnormal events by setting limitations on Total Thrust, _P Thrust, and Packing Load.

The 10 CFR 50.59 evaluation for valves 2CA002, 004, 006, 2KC003A, 018B, 228B, 230A, 305B, 315B, 320A, 332B, 333A, 338B, and 424B represent work units 01A through 14 (below). These evaluations for each individual work unit are identical for each valve. These individual evaluations state that IAE performs all work at the valve

(rewire rotors, set up switch rotors, verify add-on-pack switch setup, MOV test):

Work Unit 01A:

This TN is used to control work performed on 2CA002 (CA Pump Suction From Hotwell Isolation), and may be implemented on Unit 2 in Modes 4, 5, 6, or No Mode,

Work Unit 02A:

This TN is used to control work performed on 2CA004 (CA Pump Suction From UST Header), and may be implemented on Unit 2 in Modes 4, 5, 6, or No Mode,

Work Unit 03A:

This TN is used to control work performed on 2CA006 (Supply From CA Cond. Storage Isolation), and may be implemented on Unit 2 in Modes 4, 5, 6, or No Mode,

Work Unit 04A:

This TN is used to control work performed on 2KC003A (Rx. Bldg. Non-Ess. Return Hdr. Isolation), and may be implemented on Unit 2 in Modes 5, 6, or No Mode,

Work Unit 05A:

This TN is used to control work performed on 2KC018B (Rx. Bldg. Non-Ess. Return Hdr. Isolation), and may be implemented on Unit 2 in Modes 5, 6, or No Mode,

Work Unit 06A:

This TN is used to control work performed on 2KC228B (Rx. Bldg. Non-Ess. Hdr. Isolation), and may be implemented on Unit 2 in Modes 5, 6, or No Mode,

Work Unit 07A:

This TN is used to control work performed on 2KC230A (Trn 1A Supply To Rx. Bldg. Non-Ess. Hdr. Isolation), and may be implemented on Unit 2 in Modes 5, 6, or No Mode,

Work Unit 08A:

This TN is used to control work performed on 2KC305B (Excess Letdown Hx. Supply Hdr. Outside Cont. Isolation), and may be implemented on Unit 2 in Modes 5, 6, or No Mode,

Work Unit 09A:

This TN is used to control work performed on 2KC315B (Excess Letdown Hx. Cooling Water Return Isolation), and may be implemented on Unit 2 in Modes 5, 6, or No Mode,

Work Unit 10:

This TN is used to control work performed on 2KC320A (NCDT Hx. Cooling Water Supply Cont. Isolation), and may be implemented on Unit 2 in Modes 5, 6, or No Mode,

Work Unit 11:

This TN is used to control work performed on 2KC332B (NCDT Hx. Cooling Water Return Cont. Isolation), and may be implemented on Unit 2 in Modes 5, 6, or No Mode,

Work Unit 12:

This TN is used to control work performed on 2KC333A (NCDT Hx. Cooling Water Return Cont. Isolation), and may be implemented on Unit 2 in Modes 5, 6, or No Mode,

Work Unit 13:

This TN is used to control work performed on 2KC338B (NC Pumps Supply Hdr. Cont. Isolation), and may be implemented on Unit 2 in Modes 5, 6, or No Mode,

Work Unit 14:

This TN is used to control work performed on 2KC424B (NC Pumps Return Hdr. Cont. isolation), and may be implemented on Unit 2 in Modes 5, 6, or No Mode.

Evaluation:

An unreviewed safety question does not exist. Prior to returning these valves to service, a functional verification and retest will be performed to verify valve operability.

TN/1/A/2425/CE/01A, Initial Issue

This 10 CFR 50.59 evaluation was initiated for this TN in support of implementing Exempt Change CE-2425, to determine if an unreviewed safety question exists. This Exempt Change involves a revision to the input circuitry for annunciators 1AD06.04.12 and 1AD06.04.13 (PORV NC34A (NC32B) Emer. CLA N2 Enabled) and to provides guidelines for revising annunciator 1AD06.04.12 (for 1NC34A).

Performing this procedure involves removing power from 1NI438A (N2 Backup PORV 1NC034A on Loss of VI). Valves 1NI 438A and 1NC034A are required operable during LTOP conditions, unless an alternate vent path is used. LTOP protection is required in Mode 4 when any Reactor Coolant Cold Leg temperature is less than or equal to 285 degrees, Mode 5 and 6 when the head is on the vessel.

Power will also be removed from valve 1WL867A due to wiring being performed in a plug on the Control Board (no wiring changes to the valve itself). Operations can remove power to this valve, while in the open position, and maintain operability of the valve. Containment integrity and closure can be maintained with power removed from this valve.

Evaluation:

Prior to returning the modified valve to service, 1NI438A will be retested and all

remote position indicators will be verified correct. The annunciator, 1AD06.04.12, will also be verified to work as designed. Implementing this procedure does not increase the probability or consequences of an accident or equipment malfunction previously evaluated, or un-evaluated in the FSAR. The margin of safety defined in the bases of the Technical Specifications is unaffected and no unreviewed safety question exist.

TN/1/A/2425/CE/02A, Initial Issue

This 10 CFR 50.59 evaluation was initiated for this TN in support of implementing Exempt Change CE-2425, to determine if an unreviewed safety question exist. The Exempt Change involves revising the input circuitry for annunciators 1AD06.04.12 and 1AD06.04.13 (PORV NC34A (NC32B) Emer. CLA N2 Enabled), and to provide guidelines for revising annunciator 1AD06.04.13 (for PORV 1NC32B).

Performing this procedure involves removing power from 1NI439A (N2 Backup PORV 1NC032A on Loss of VI). Valves 1NI 439A and 1NC032A are required operable during LTOP conditions, unless an alternate vent path is used. LTOP protection is required in Mode 4 when any Reactor Coolant Cold Leg temperature is less than or equal to 285 degrees, Mode 5 and 6 when the head is on the vessel.

Power will also be removed from NI Pump 1B, ND Pump 1B, and NS Pump 1B due to wiring being performed in a plug on the Control Board (not the pump motor circuits).

Evaluation:

This procedure will not be implemented when these pumps are required operable. Prior to returning the modified valve to service, 1NI439B will be retested and all remote position indications will be verified correct. Annunciator 1AD06.04.13 will also be verified to work as designed. Implementing this procedure does not increase the probability or consequences of an accident or equipment malfunction previously evaluated, or un-evaluated in the FSAR. The margin of safety defined in the bases of the Technical Specifications is unaffected and no unreviewed safety question exist.

TN/1/A/3098/CE/01A, Initial Issue

Description:

This procedure provides guidance for drilling an access hole, installing a gamma plug, and plugging the access hole in Main Steam piping in order to efficiently perform a radiographic examination per Exempt Change CE-3098.

Evaluation:

The Operations group coordinates the isolations necessary to perform the procedure, maintain containment integrity during Modes 5, 6, or No Mode. The appropriate post-mod test follows the plugging of the hole, as well as a visual leak inspection of the plug weld at system pressure and temperature. No new operating modes or characteristics

are introduced by this procedure, therefore the margin of safety as defined by Technical Specifications is not reduced and no unreviewed safety question exists.

TN/2/B/0103/00/01A, Initial Issue

Description:

This procedure provides guidance for the installation of a vendor supplied Recirculating Filtering System that services the Diesel Generator Engine Fuel Oil Storage Tanks per NSM CN-20103, Rev. 0.

Evaluation:

All work performed by this procedure is non-safety related. Operations and Chemistry assures continued fuel oil checks/samples and removal of water from fuel oil storage tanks per Technical Specifications. This procedure does not increase the probability of an accident or equipment malfunction evaluated in the FSAR. The new system will operate the same as the previous system, but will provide cleaner fuel oil to the Diesel Generators. There are no unreviewed safety questions associated with this procedure.

TN/0/A/3657/CE/01A, Initial Issue

Description:

This procedure provides guidance for deleting Auxiliary Bldg. Ventilation (VA) Post-LOCA control humidistats 1VAMT5290, 5300, 2VAMT5290, and 5300 per Exempt Change CE-3657. This humidity control is no longer required in the VA System per Technical Specification Amendments 90 and 84.

Evaluation:

This procedure assures that the Post-LOCA controls which restart the VA Unfiltered Exhaust Fans (VAUXF) (after a LOCA) is out of service while the humidistats are removed. The controls for the VAUXFs in the Control Room is not affected. These fans do not serve a safety function and are not Tech Spec related.

TN/1/A/1255/01/01B, Initial Issue

Description:

This procedure removes manual valves INV017, INV019, INV20, INV 404 and pneumatic control valves INV018 and INV403 per NSM CN-11255, Rev.1. It also disables and removes alarms associated with INV018 and INV403, including controls interfacing with the NR System.

Evaluation:

This procedure isolates and renders inoperable the NR System during the modification. The effects of all electrical and pneumatic isolations necessary for this modification

have been evaluated and addressed in the 10 CFR 50.59/TN procedure, such that there is no effect on the safe operation of the plant during implementation of this modification when implemented in Modes 5, 6, or No Mode. A compensatory action is provided for addressing specific instructions when opening and closing firestops in the control room floor. Appropriate functional tests and calibrations are addressed following completion of the modification. The margin of safety defined in the bases of Technical Specifications is not reduced and no unreviewed safety question exists.

TN/1/A/0911/02A - 03A, Initial Issue

Description:

This procedure provides guidance to relocate the Volumetric Pneumatic Module and the Remote Control Unit outside of the Personnel Airlock and Bypass Leakage Enclosure to an Auxiliary Building location per NSM CN-10911 for Unit 1 Upper Personnel Airlock (02A) and Lower Personnel Airlock (03A).

Evaluation:

No system will be prevented from performing any safety function important to safety while this work is performed. All work is performed when Unit 1 is in No Mode, with the exception of a core drill which is specified to be performed during Mode 5. All appropriate post-mod tests have identified following completion of the modification (includes stroke and remote position indication verification, structural integrity test, Type "C" leak rate test, and a Aux. Safeguards test for containment isolation valves HIASV5080 and 5400, inner/outer seal annulus leak rate test, and overall personnel airlock leak rate test) to verify operability of the modified system. Accordingly, this procedure does not reduce the margin of safety as defined in the bases of Technical Specifications and no unreviewed safety question exists.

TN/2/A/0565/00/01A, Initial Issue

Description:

This procedure provides guidance to re-power Train A Boron Dilution Mitigation System (ENC). During normal plant operations, power will be supplied from a 1E power source (2ERPA BKR #20) and during an SSF event, power will be supplied from a SSF power source (SKPG BKR #36).

Evaluation:

This procedure establishes fire watches when boundaries are breached. The systems and panels affected by implementation of this procedure are safety related, but will be implemented within compliance of all applicable Technical specifications. Limits, precautions, warnings, and notes are listed in the procedure such that systems important to safety are not degraded. As a result, the margin of safety as defined in the bases of Technical Specifications is not reduced and no unreviewed safety question exists.

TN/1/A/1221/00/01A, Initial Issue

Description:

This procedure provides a dedicated Rx. Vessel Head vent to support NC system draindown activities per NSM CN-11221, Rev. 0. This vent will be located on an existing, unused UHI connection.

Evaluation:

This modification is performed during a Unit 1 outage and begins in Mode 5, when the NC System is depressurized (r.o abnormal operating concerns). It is to be completed prior to Mode 4 when the NC System is returned to service. Following completion of this modification, all associated piping and equipment will be inspected during Mode 3, at full NC system temperature and pressure to verify integrity. This will ensure the NC System pressure boundary is acceptable to support subsequent power escalation and system operation. Since no equipment required to support safe operation of the station is affected by implementation of this procedure, the margin of safety as defined in the bases of Technical Specifications will not be reduced and no unreviewed safety questions are created or involved.

TN/1/A/2339/CE/01A, Initial Issue

Description:

This procedure provides guidance to replace some of the Auxiliary Building Ventilation ductwork with heavier gauge ductwork and install additional ductwork turning vanes, in an effort to reduce or eliminate future vibration induced duct cracks/failures. These modifications are specified by Exempt Change CE-2339, Work Unit 01.

Evaluation:

This 10 CFR50.59 addresses required operability of associated systems, EMFs and interlocks. The Post-LOCA ventilation and control room habitability design criteria requirements is maintained during implementation of this procedure. Dampeners 1ABFX-D-1, 1ABF-D-4, 1ABF-D-11, and 1ABF-D-16 are closed and manually secured during the modification to ensure that no unmonitored release flow paths are available and the VA HVAC boundary is secured for tornado protection. Appropriate permanent and temporary duct supports in place during the modification process ensures that the duct not being removed will not be subject to failure should a seismic event occurs. Appropriate Post-Mod Tests will verify proper operation of dampers, equipment start/stops, flow rates and interlocks. The required 30,000 CFM flow rate through 1B Filter Unit may not be met, however this flow rate is a test point and does not define a safety parameter. The ability of the VA system to align to the ECCS pump rooms is not affected, which is the only ESF function that VA performs. Accordingly, no unreviewed safety questions exists.

TN/1/A/18/00/01A (Unit 1), TN/1/A/0433/00/01A (Unit 2), Initial Issue

Description:

These procedures provide a more accessible switch which allows the New Fuel Elevator to be stopped on each unit per NSM CN-11048, Rev. 0, Work Unit 01 (Unit 1) and NSM CN- 20433, Rev. 1, Work Unit 01 (Unit 2).

Evaluation:

This procedure can be implemented in any mode. No other system used for any phase of power generation, shutdown cooling, fuel handling, or radwaste treatment is adversely affected by this procedure. Based on this reasoning, there is no effect on the margin of safety as defined in the bases of Technical Specifications and no unreviewed safety question is created.

PT/1/A/4200/13E, Change #50, and PT/2/A/4200/13E, Change # 30

Description:

These identical changes (one for each unit) allow for valves 1(2) CA-46B and 1(2) CA-58A to be stroke-time tested from open to closed, as well as closed to open since these valves are a part of the CA pump runout/flow optimization circuitry and are subject to receive a signal to close following CA system initiation to enable the system to provide minimum system flow to the Steam Generators and/ or provide runout protection.

Evaluation:

These changes provide procedure steps for valves 1(2) CA-46B and 1(2) CA-58A to test these valves in both directions, instead of only closed to open. The new steps added by this change (to test from open to closed) were developed using the same methodology previously used in testing the valve closed to open, therefore no new failure modes were introduced by this change and no unreviewed safety question exists.

MP/0/A/7400/46, Change # 1

Description:

This change provides a method for performing various maintenance activities on the Jacket Water Pump Gear Carrier Assembly, as well as providing guidance for additional maintenance on the carrier gear required by a recent 10CFR21.

Evaluation:

This change increases the scope of a previously approved and fully reviewed procedure (D/G Timing Gear Inspection and Corrective Maintenance) to embrace the complete Jacket Water Gear Carrier Assembly. The incorporation of the JW Pump Gear Carrier Assembly into the procedure organizes and consolidates closely interrelated component

sequences under one procedure, as recommended by the manufacturer's instruction manuals. These recommendations ensure continued, "as-designed" operational performance and maintenance of material/equipment excellence.

OP/0/B/6250/10, Change # 7

Description:

This change allows use of approved, alternative chemicals for secondary cycle pH control, the wording for Initial Conditions for each enclosure in the procedure was changed to include three statements concerning the Limits and Precautions for consistency with other Chemistry procedures, and changes to Enclosure 4.9 were made to provide clear, individual steps for transferring Hydrazine to specific units and/or tanks.

Evaluation:

The appropriate sections of Technical Specifications and the FSAR were reviewed to ensure that this change for operating the conventional chemical addition system, and pH control additives does not alter the accident and malfunction scenarios outlined in the FSAR. This change does not affect safety related equipment or the safe operation of the plant.

TN/1/A/3358/CE/01A, Initial Issue

Description:

This procedure provides guidance for deletion of valves 1NI-011, 1NI-013 and 1NI-196, associated test line piping, associated electrical wiring and equipment to eliminate a source of leakage to the NI system test header and cold leg accumulators.

Evaluation:

The implementation of this modification will require mechanical and electrical isolations, which will affect numerous NI and KC valves and their associated computer points, as well as the isolation valves for 1EMFs 38, 39, and 40. These isolations are coordinated by Operations during Modes 3, 4, 5, 6, and No Mode, to ensure equipment affected by these isolations are back in service and operable when required. Post-Mod testing is performed to ensure affected equipment performs as intended.

TN/1/A/0911/00/02A, Change # 1

Description:

This change deletes two procedure steps that place/return the RN system on the SNSWP while wiring changes are made in 1EATC9. These steps were an extra

precaution to prevent an inadvertent pond swap while wiring changes were being performed. Following a meeting with various station personnel, it was decided that due to elevated SNSWP temperatures during the summer months, a voluntary swap to the pond would result in higher SNSWP temperatures at the SNSWP RN pump suction (mixing). Steps will remain in place to provide hard-wired jumpers in place to keep the RN circuit energized while wiring changes are performed.

Evaluation:

This change does not change the intent of the procedure, but rather is considered an implementation option. Since hard-wired jumpers will be in place to keep the RN circuit energized, this change does not increase the probability or consequences of an accident previously evaluated, or different than already evaluated, in the FSAR.

TN/2/A/0564/00/01A, Change 3

Description:

This change deletes the requirement to cycle valves 2NCCV0340, 2NCCV0360, 2NCCV0320, and 2NCCV1860 following replacement of the push-button operator (no wiring changes) as a part of a functional test. Maintenance was being performed on those valves when these push buttons were replaced, and were not available for stroking. A continuity check between through the closed switch contacts replaces the requirement for stroking these valves for the functional. Also, this change deletes the requirement to install new scales into chart recorders 2NSCR5390, and 5040, since the new scales Westinghouse provided wouldn't fit. After inspecting the existing scales, it was decided that they were acceptable for continued use. The whole chart recorders are to be replaced in the future.

Evaluation:

Implementation of this procedure does not adversely affect the control boards or any other piece of equipment, therefore neither the probability or consequences of the malfunction of a piece of equipment important to safety is increased.

TN/2/A/2766/CE/01A, Initial Issue

Description:

This procedure revises the thumbwheel settings for the Control Bank RCCAs.

Evaluation:

No isolations are required by this procedure and the changes will be made in Modes 3,4,5,6 or No Mode. Functional Verifications will be performed by IAE and Performance, which will adequately test the modification. A revision to the Core Operating Limits Report will be made and issued by Design Engineering. Implementing this procedure will have no effect on Tech Specs.

PT/1/A/4200/05B, Change # 14

PT/2/A/4200/05B, Change # 15

Description:

This procedure change deletes all references to valve 2NI-114 in the NI Pump 2B IWP Test, since this valves currently leaks app. 2 GPM past its seat. This change incorporates the use of 2NI-115A, rather than 2NI-114 for test isolation purposes.

Evaluation:

Valve 2NI-114 is the NI Pump 2A discharge check, which prevents reverse flow over pressurization of the 2A pump suction line when pump 2A is idle and pump 2B is running. With 2NI-114 inoperable, NI Pump 2A is inoperable. Tech Spec 3.5.2 requires 2 independent ECCS trains be available during modes 1, 2, and 3. Each train must include one operable NI Pump. The proposed change will render NI pump 2A inoperable. Action Statement 3.5.2 will apply during performance of this test. This Action Statement requires return to operability within 72 hours. The inoperability of NI A train does not impact accident or component failure initiation mechanisms. Normally, the NI system remains in a standby condition. NI train B will be capable of performing its intended safety function during the time interval NI train A remains inoperable. The cycling of 1NI-115A does not impact accident or component failure initiation mechanisms. NI Pump 2B will be operated in accordance with normal precautions for equipment protection. The 2 GPM backflow will not result in reverse rotation and will not cause damage to idle pump 2A.

MP/0/A/7150/44, Change # 12

Description:

This procedure change will correct errors and provide a more accurate method for setting shaft spacing during pump-to-motor alignment and are identified in Pacific Pump Drawing FC-49359 of instruction manual CNM 1201.05-0075.

Evaluation:

This method ensures the return of the pump to as-built/as-designed conditions and ensure pump compliance with FSAR accident analysis. Accordingly, the possibility, probability or consequences of a malfunction will be reduced.

PT/1/A/4200/21A, Retype (Changes 0-30 Incorporated)

PT/2/A/4200/21A, Retype (Changes 0-12 Incorporated)

Description:

These retypes incorporate only previously approved procedure changes which were initiated over time, in an effort to improve the readability/usability of the procedures. Most of the changes were purely administrative in nature, serving to further clarify the test method, and to provide the proper actions when a failure occurs. One procedure change eliminates the requirement to align and realign the valve for the listed valves in the valve line-ups, in a certain order because the requirement is not necessary. One change ensures both opposite train KC pumps are in operation. Same train pumps are verified to be off with no same train ECCS components in operation to ensure all running ECCS pumps supplied cooling by KC have sufficient cooling water. One change ensures KC Surge tank levels are sufficient and will not fall below 34% setpoint at which opposite train KC crossover valves close. One change adds requirement that the applicable Control Room Monitor Lights be checked to verify valve positions for valves KC-57A and 82B, which have no control board indications.

Evaluation:

Each individual previously approved procedure change incorporated into these retypes have individual 10CFR50.59 evaluations, which conclude no unreviewed safety questions exists.

PT/2/A/4200/13H, Retype (Changes 0-5 Incorporated)

Description:

This retype incorporates only previously approved procedure changes which were initiated over time to improve the readability/usability of the procedure.

Evaluation:

Each individual previously approved procedure change incorporated into this retype has individual 10CFR50.59 evaluations, which conclude no unreviewed safety questions exist. This test is performed during no mode (no fuel in the Reactor Vessel) when no ECCS systems are required to perform a safety function. It provides assurance that adequate ECCS flows will be delivered to the Reactor Coolant System in the event of a LOCA. The Reactor Vessel head is removed during this test, therefore it would not be possible to over pressurize the NC system. Tech Specs do not require the ECCS to be operable during no mode.

PT/0/A/4400/22A, Retype (Incorporates Changes 0-33)

Description:

This retype incorporates only previously approved procedure changes which were initiated over time to improve readability/usability of the procedure.

Evaluation:

Each previously approved procedure change incorporated by this retype have individual

10CFR50.59 evaluations, which conclude no unreviewed safety questions exist. All of the changes were purely administrative in nature and do not change the basic test method, therefore they do not affect systems structures or components that are addressed in the FSAR in a significant manner.

PT/0/A/4400/08C, Initial Issue

Description:

This procedure was developed to take the RN Pumphouse Flow Balance portion out of the RN Flow Balance procedure to allow the Pumphouse Balance to be performed without performing the entire RN Flow Balance.

Evaluation:

This procedure is considered to be conservative because the pump discharge pressure is required to be at or below the previous RN Flow Balance discharge pressure. This is accomplished by using various flow paths such as KC, KD, and /or NS Heat Exchangers. A flow limit through the NS Hx. is established at 4650GPM to prevent overcooling. A caution is included to monitor pump flow so pump deadhead or runout is not achieved. The RN system is not degraded by this test or will it degrade the ability of the RN system to perform its intended function. In the event of an ESF signal, the RN pumps would start and provide all necessary flows as described in the FSAR. The failed open KC and KD Hx valves (to establish a flow path) are in their ESF positions.

PT/0/A/4400/08A, Change # 8

Description:

This procedure change allows the simultaneous performance of RN Train A Flow Balance, RN Train A IWP Pump Test, and the RN Pump 2A Flow Versus Pressure data acquisition.

Evaluation:

No unique valve line-up or alignments are required beyond the normal scope of the Flow Balance in the combination of these procedures. One concern beyond the scope of the RN Flow Balance is the possibility of a second pump start while the flow paths have been reduced in the gathering of low flow, high pressure data (Flow vs. Pressure Data Acquisition), which could exceed the immediate mini-flow alignment. The OATC has the ability to open the NS Hx. from the control board and the Test Coordinator has the capability to open the KC Hx valves, establishing sufficient flow paths for dual pump operation. Since the RN system is not degraded by these tests, the probability of or the consequences of any accident, whether previously evaluated in the FSAR is not increased. No train of RN is rendered inoperable by these tests.

PT/2/A/4400/01, Retype (Incorporates Changes 0-9 plus additional changes)

Description:

This retype of the ECCS Flow Balance procedure incorporates the previously approved procedure changes, plus the following new changes:

- 1) Incorporates a new format which breaks down into three main enclosures; ND, NI, & NV.
- 2) Required test equipment and ranges have been revised to more adequately reflect expected test conditions.
- 3) Limits and precautions for pump minimum and runout flow have been updated, as well as minimum FWST level. Items not applicable to the performance of this test have been deleted.
- 4) Required Station Status: Valves requiring repositioning or verification have been removed and included in the appropriate enclosures. Additional valves have been added to improve system configuration during testing. Valves not applicable have been deleted.
- 5) Acceptance Criteria: Has been revised to reflect the issuance of new Test Acceptance Criteria Data Sheets for the ECCS.
- 6) Procedure: Changes have been incorporated to provide for the opening of miniflow valves prior to pump shutdown. Cautions have been added regarding operation at pump runout conditions and other pump protective issues, as well as changes which clarify sequence of testing activities and comprehensibility.
- 7) Administrative Changes: Administrative changes were made to reflect usage of computer equipment during testing, as well as changes which improve readability, correct spelling errors, and rearrange information to better support testing activities.

Evaluation:

The ECCS Flow Balance ensures that Tech Spec Surveillance Requirement 4.5.2.h pump runout, total flow, and flow split requirements are satisfied and that the ECCS flow resistance and pressure drop characteristics are adequate for the system to perform its intended safety function. The ECCS Flow Balance is performed in No Mode (no fuel in Reactor Vessel) and will not adversely impact the possibility or probability of any accident previously evaluated in the FSAR. The Reactor Vessel Head is removed during testing, therefore there is no possibility of over pressurizing the NC system during testing. The ECCS is not required to perform any safety function during this test and will be aligned in a configuration similar to those required following an accident

condition. However, the head is removed and FWST water will overflow into the cavity.

PT/1/A/4200/07D, Initial Issue

Description:

This procedure was developed to comply with NRC Bulletin 88-04, Potential Safety-Related Pump Loss, which addresses the potential for deadheading one or more pumps in safety-related systems that have a miniflow line common to two or more pumps or other such configurations that do not preclude pump-to-pump interactions during miniflow operation. This test verifies that a significant flow imbalance does not exist between the two Boric Acid Transfer Pumps during miniflow, and develops a pump head curve for each pump.

Evaluation:

No systems will be rendered inoperable as a result of this test. Chapter 15 of FSAR (Accident Analysis) were reviewed and is not affected since the test is performed under the normal operating parameters of the system and does not impact accident initiation mechanisms. This test does not involve any hardware modifications or adversely affect any equipment important to safety.

PT/2/A/4200/05B, Change # 16

Description:

This change is required for purposes of retesting the modification of installing a soft seat for check valve 2NI-114 (NI Pump 2A Discharge Check), by performance of the NI Pump 2B IWP Test. The change will provide guidance to perform the pump test with 2NI-115A closed, then open to compare data ensuring 2NI-114 is performing its flow check function.

Evaluation:

This change will make NI Pump 2A inoperable during the test, but does not impact the accident initiation mechanisms. Normally, the NI system remains in a standby condition. NI train B will be capable of performing its intended safety function while B train is inoperable. If 2NI-114 fails to perform its intended backflow function, the resulting backflow through NI Pump 2A will not be sufficient to cause reverse rotation of the pump.

PT/0/B/4600/21, Initial Issue

Description:

This procedure verifies the accuracy of the effluent radiation monitors per Reg Guide 1.21.

Evaluation:

This procedure requires the Tech Spec EMFs to be removed from service during testing. Backup sampling methods are in place to provide adequate monitor function. None of the monitors is anticipated to be out of service greater than one hour during testing.

PT/0/A/4150/19A, Initial Issue

Description:

This procedure consists of actions previously directed by the 1/M Approach To Criticality procedure. These entail the dilution of the NC system with Shutdown Banks inserted, an activity which will now be permissible not only for initial reactor startup following refueling, but at any time during operation that it is not permissible to dilute the NCS to ECB concentration with the Shutdown Banks withdrawn, due to inability to remain in Mode 3, due to xenon decay.

Evaluation:

During actual dilution, the occurrence of 3 consecutive data points either above the allowable upper ICCR limit, or below the allowable lower ICCR limit, will mandate immediate halt to dilution. These proactive measures will ensure that insertion of positive reactivity is terminated at the first indication of a potential reactivity anomaly. Boron Dilution Mitigation System is required to be operable during dilution to mitigate dilution accidents described in FSAR Section 15.4.6 via emergency boration, which is initiated automatically at BDMS setpoints. It is expected, from previous startups during which dilution was performed with all rods in, that BDMS counts should be less than 2 times baseline at the conclusion of dilution. Assurance that adequate Shutdown Margin is maintained during, and at all times following, dilution directed by this procedure is provided.

MP/0/A/7400/15, Retype 3

Description:

The scope of this procedure has been increased, by this retype, to embrace the phasing in of the "pre-stressed" D/G connecting rod and its fasteners. In the body of the procedure, steps are delineated for the removal, inspection, corrective maintenance, replacement (reinstallation) and documentation of the activities associated with "prestressed" D/G connecting rods

Evaluation:

The incorporation of all prestressed connecting rod activities into the procedure organizes and consolidates inter-related component sequences under one procedure.

They are recommended/required by the manufacturer and allow deliberate and controlled steps in the removal, replacement, and corrective maintenance of these components. This ensures continued, 'as-designed' operational performance and maintenance of equipment condition excellence.

MP/0/A/7150/44, Retype 1

Description:

This procedure retype upgrades the format and clarifies procedure content of the Safety Injection Corrective Maintenance procedure.

Evaluation:

This retype increases the reliability of work controlled by this procedure. These revisions will ensure the return of the pump to "as-designed" conditions. The corrections have been reviewed against approved vendor manuals, design documents, which will ensure the pump's compliance with FSAR accident analysis.

TT/2/A/9200/064, New Issue

Description:

This procedure initiates four transient tests to verify proper operation of the modifications performed on Feedwater and Turbine Control.

Evaluation:

The tested power is considered to be a Non-1E Class system by the FSAR. This turbine system is not required for safe shutdown of the reactor. The system shall be tested per its design and will not be placed under abnormal conditions. Certain conditions must be met prior to performing any of the three transient tests. First, the plant shall be in normal operating condition for safe plant operation. The plant shall also meet stability criteria as specified in the procedure prior to beginning tests. All three transients tests were required for initial unit startup and are described by the FSAR under chapter 14, section 14.5. The procedure will not test any system beyond its design capabilities. The reactor protection trip functions shall be maintained during the test to ensure safe shutdown. No unreviewed safety question exists.

AFP-CNS-9.001 Rev. 3

Description:

This procedure change deleted Steps 4.3 and 4.4.

Evaluation:

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-5.002 Rev. 3

Description

This procedure revised Step 5.9 to include barrier bar installation data.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-5.004 Rev. 6

Description

This procedure removed the name "Flakt" from the procedure during a two year review.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-5.027 Rev. 1

Description

This procedure was revised during a two year review to reflect current practices.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-5.026 Rev. 3

Description

This procedure removed the name "Flakt" from the procedure during a two year review.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-5.025 Rev. 5

Description

This procedure change revised Steps 4.2, 4.3, and 10.1 and added Attachment #5.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-5.024 Rev. 4

Description

This procedure change revised Step 6.5 per Duke Power request.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent and unreviewed safety question.

AFP-CNS-5.023 Rev. 3

Description

This procedure removed the name "Flakt" from the procedure during a two year review.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent and unreviewed safety question.

AFP-CNS-5.021 Rev. 2

Description

This procedure change revised the procedure to comply with the AFP format per AFP-CNS-2.002.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent and unreviewed safety question.

AFP-CNS-5.020 Rev. 6

Description

This procedure change revised Steps 4.2, 4.3, and 10.1 and added Attachment #5.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent and unreviewed safety question.

AFP-CNS-5.019 Rev. 7

Description

This procedure change revised Steps 4.2, 4.3, and 10.1 and added Attachment #5.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent and unreviewed safety question.

AFP-CNS-5.006 Rev. 8

Description

This procedure removed the name "Flakt" from the procedure during a two year review.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent and unreviewed safety question.

AFP-CNS-5.006 Rev. 8

Description

This procedure removed the name "Flakt" from the procedure during a two year review.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-5.005 Rev. 7

Description

This procedure removed the name "Flakt" from the procedure during a two year review.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-5.033 Rev. 1

Description

This procedure was revised during a two year review to reflect current practices.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-11.001 Rev. 7

Description

This procedure was revised during a two year review to reflect current practices and clarify wording.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-11.006 Rev. 2

Description

This procedure was revised during a two year review to reflect current practices and clarify wording.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-15.001 Rev. 2

Description

This procedure change revised Step 4.4.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-9.006 Rev. 3

Description

This procedure change added Step 4.4, revised Step 3.1, and deleted references to Devcon Z in various steps.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-5.001 Rev. 8

Description

This procedure was revised during a two year review to reflect current practices.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-15.001 Rev. 2

Description

This procedure change revised Step 4.4.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-11.006 Rev. 2

Description

This procedure was revised during a two year review to reflect current practices and clarify wording.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-11.001 Rev. 7

Description

This procedure was revised during a two year review to reflect current practices and clarify wording.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-9.006 Rev. 3

Description

This procedure change added Step 4.4, revised Step 3.1, and deleted references to Devcon Z in various steps.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change

does not represent and unreviewed safety question.

AFP-CNS-5.033 Rev. 1

Description

This procedure was revised during a two year review to reflect current practices.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent and unreviewed safety question.

AFP-CNS-5.032 Rev. 1

Description

This procedure change revised the Title Page.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent and unreviewed safety question.

AFP-CNS-5.031 Rev. 3

Description

This procedure removed the name "Flakt" from the procedure during a two year review.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and

maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent and unreviewed safety question.

AFP-CNS-5.030 Rev. 2

Description

This procedure change revised step 6.2.3.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent and unreviewed safety question.

AFP-CNS-5.029 Rev. 1

Description

This procedure was revised during a two year review to reflect current practices.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent and unreviewed safety question.

AFP-CNS-5.028 Rev. 1

Description

This procedure was revised during a two year review to reflect current practices.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and

maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent and unreviewed safety question.

AFP-CNS-5.027 Rev. 1

Description

This procedure was revised during a two year review to reflect current practices.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent and unreviewed safety question.

AFP-CNS-5.026 Rev. 3

Description

This procedure removed the name "Flakt" from the procedure during a two year review.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent and unreviewed safety question.

AFP-CNS-5.025 Rev. 5

Description

This procedure change revised Steps 4.2, 4.3, and 10.1 and added Attachment #5.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls

comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-5.024 Rev. 4

Description

This procedure change revised Step 6.5 per Duke Power request.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-5.023 Rev. 3

Description

This procedure removed the name "Flakt" from the procedure during a two year review.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-5.021 Rev. 2

Description

This procedure change revised the procedure to comply with the AFP format per AFP-CNS-2.002.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-5.020 Rev. 6

Description

This procedure change revised Steps 4.2, 4.3, and 10.1 and added Attachment #5.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-5.019 Rev. 7

Description

This procedure change revised Steps 4.2, 4.3, and 10.1 and added Attachment #5.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-5.006 Rev. 8

Description

This procedure removed the name "Flakt" from the procedure during a two year review.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-5.005 Rev. 7

Description

This procedure removed the name "Flakt" from the procedure during a two year review.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

AFP-CNS-5.001 Rev. 8

Description

This procedure was revised during a two year review to reflect current practices.

Evaluation

This procedure was compared with Technical Specifications, the FSAR, and Engineering documents. This review verified that the actions this procedure controls comply with established Duke Power and Catawba Nuclear Station requirements and maintains plant equipment in its as built, as designed condition. Therefore, this change does not represent an unreviewed safety question.

PT/2/A/4400/03B Change #19

Description

This procedure change added steps to provide a method for KC pump discharge check valve testing and to provide actions to be taken when acceptance criteria is or is not

met.

Evaluation

Sections 9.2.2, 9.2.2.1, 9.2.2.2, 9.2.2.3.2, and 9.2.2.4 of the FSAR were consulted. The changes described above help to prevent and identify equipment problems. Therefore, no unreviewed safety question exists.

PT/2/A/4400/03A Change #17

Description

This procedure change added steps to provide a method for KC pump discharge check valve testing and to provide actions to be taken when acceptance criteria is or is not met.

Evaluation

Sections 9.2.2, 9.2.2.1, 9.2.2.2, 9.2.2.3.2, and 9.2.2.4 of the FSAR were consulted. The changes described above help to prevent and identify equipment problems. Therefore, no unreviewed safety question exists.

PT/1/A/4400/03A Change #43

Description

This procedure change added steps to provide a method for KC pump discharge check valve testing and to provide actions to be taken when acceptance criteria is or is not met.

Evaluation

Sections 9.2.2, 9.2.2.1, 9.2.2.2, 9.2.2.3.2, and 9.2.2.4 of the FSAR were consulted. The changes described above help to prevent and identify equipment problems. Therefore, no unreviewed safety question exists.

PT/1/A/4400/03B Change #40

Description

This procedure change added steps to provide a method for KC pump discharge check valve testing and to provide actions to be taken when acceptance criteria is or is not

met.

Evaluation

Sections 9.2.2, 9.2.2.1, 9.2.2.2, 9.2.2.3.2, and 9.2.2.4 of the FSAR were consulted. The changes described above help to prevent and identify equipment problems. Therefore, no unreviewed safety question exists.

PT/2/A/4700/010, Change #1

Description

This change added steps to the PT to ensure that the referenced valve position controllers are returned to their "as found" positions following testing. In addition, steps were added to ensure that control signals and instrumentation are properly aligned for testing.

Evaluation

The performance of this procedure change does not have an adverse impact on the control of Unit 2. This change also provides for better plant configuration control. This change ensures that control signals and instrumentation are properly aligned for testing. The probability, consequence or possibility of equipment malfunctioning has not been increased. Therefore, no unreviewed safety question exists.

PT/2/A/4700/010, Change #2

Description

This change added a jumper to close valve 2SA-005 which was being maintained opened by the implementation of NSM-20544.

Evaluation

The sole intent of the jumper was to bypass the non-safety, SSF powered, 2/4 Wide Range lo-lo level signals which open 2SA-005. The placement of the jumper was required due to the implementation of NSM-20544. The placement of the jumper ensured that 2SA-005 could be cycled from the 2AFWPTCP as required by the procedure. This procedure change did not increase the probability, consequences or possibility of a malfunction of equipment important to safety. Therefore, no unreviewed safety question exists.

PT/2/A/4200/23B Rev. 0

Description

This procedure is a new procedure that took the actions that were previously performed under PT/2/A/4150/30, NC PORV AND BLOCK VALVE STROKE TEST and added stroke timing of the PORVs from closed to open using the N2 supply.

Evaluation

Operation of the NC System as outlined in FSAR table 1.9-1 II.D.1 and 3, Section 5.1, and the accident analysis of Chapter 15 will not be compromised. Therefore, no unreviewed safety question was created by this change.

TN/2/A/0564/00/01A, Change #2

Description

This change installed jumpers at ASPA to allow the verification of valve positions from the ASPA without the main transfer switch on the control boards being used.

Evaluation

The implementation of this change does not affect any plant safety system. Neither the probability nor the consequence of a malfunction of a piece of equipment important to safety is increased. This work did not increase the probability of an accident previously evaluated in the FSAR. Therefore, no unreviewed safety question was created by this change.

MP/0/B/7400/26, Rev. 0

Description

This is a new procedure that was developed to provide a method for the controlled removal and replacement of the D/G fuel oil fill filters, fuel oil recirculation filters, and the fuel oil polishing filters.

Evaluation

This procedure assures equipment availability, reliability, and operability through well thought out and evaluated specified steps. The probability of, consequences of, or possibility of an increase in previously evaluated accidents was not created but rather

decreased based on the controlled and deliberate procedural actions. In addition, no safety margin was compromised or reduced. Therefore, no unreviewed safety question was created by the implementation of this procedure.

OP/0/A/6200/15, Change #4

Description

This change revised the fill and vent sequence of the NF system due to the implementation of NSM CN-20011.

Evaluation

The NF glycol system is not required to mitigate the consequences of any accident other than its containment isolation function which is not affected by this change. This change does not affect any system required for safety. Therefore, no unreviewed safety question was created by this change.

TN/2/A/0564/00/01A, Change #1

Description

This change allowed starting the ASPA and ASPB portions of the change out of control switch SPA37 when the PORVs were not being used for low temperature over pressurization protection.

Evaluation

The implementation of this change did not degrade any plant safety systems. Neither the probability nor the consequences of a malfunction of a piece of equipment important to safety was increased. This work did not increase the probability of an accident previously evaluated in the FSAR. Therefore, no unreviewed safety question was created by this change.

TN/2/A/3359/CE/01A, Rev. 0

Description

This procedure for Exempt Change CE-3359 provided guidance for the deletion of valves 2NI-011, 2NI-013, and 2NI-196 and the associated test line piping.

Evaluation

The Operations Group will control the isolations required to delete the valves. Post-

modification testing will be performed in accordance with station procedures. No new operating modes or characteristics are introduced by this procedure. Neither any setpoint, design limit, nor any operating parameter is affected. This procedure does not reduce the margin of safety as defined in the basis of any technical specification. Therefore, no unreviewed safety question was created by this procedure.

OP/1/A/6350/02, Retype #16

Description

This retype was developed to address concerns with alignment of 1EMXG and 2EMXH motor control centers as well as concerns with reverse power trips when re-parallelizing an essential bus supplied only by a D/G. Additional changes were added as procedural enhancements allowed by the new word processing package.

Evaluation

The changes made did not affect the analysis in the FSAR in a significant manner and were not significant enough to require inclusion into the FSAR. The majority of the changes were administrative in nature and the remaining changes were the result of a PIR response or plant staff input. Therefore, no unreviewed safety question was created by these changes.

OP/2/A/6350/02, Retype #11

Description

This retype was developed to address concerns with alignment of 1EMXG and 2EMXH motor control centers as well as concerns with reverse power trips when re-parallelizing an essential bus supplied only by a D/G. Additional changes were added as procedural enhancements allowed by the new word processing package.

Evaluation

The changes made did not affect the analysis in the FSAR in a significant manner and were not significant enough to require inclusion into the FSAR. The majority of the changes were administrative in nature and the remaining changes were the result of a PIR response or plant staff input. Therefore, no unreviewed safety question was created by these changes.

TN/2/A/0642/00/16A, Rev. 0

Description

This NSM implementation procedure modified the control circuit wiring on valve NF-233B to provide "limit actuated" torque switch bypass contacts.

Evaluation

This procedure was implemented with Unit 2 in a Mode that did not affect the operability of the valve. The valve was functionally verified and retested prior to returning the valve to service. Therefore, this procedure did not affect the NF system in a significant manner and did not create an unreviewed safety question.

TN/2/A/0642/00/15A, Rev. 0

Description

This NSM implementation procedure modified the control circuit wiring on valve KC-425A to provide "limit actuated" torque switch bypass contacts.

Evaluation

This procedure was implemented with Unit 2 in a Mode that did not affect the operability of the valve. The valve was functionally verified and retested prior to returning the valve to service. Therefore, this procedure did not affect the KC system in a significant manner and did not create an unreviewed safety question.

OP/2/B/6100/10P, Change #7

Description

This change revises the probable cause and the setpoint for alarms given on 2AD-18. In addition, it adds detailed guidance to the procedure on actions to be taken during core alterations.

Evaluation

The changes dealing with actions to be taken represent enhancements to the procedure. These changes do not affect the performance or integrity of structures, systems, or components addressed in the FSAR in a significant manner. The alarm setpoint revision is due to exempt change CE-3639. This change prevents a possible Tech Spec violation because of instrument error. A 50.59 evaluation was previously performed on the exempt change. The change in the setpoint does not affect the operator's response to the alarm. Therefore, no unreviewed safety question was created by these

changes.

OP/1/A/6350/05, Change #22

Description

This change adds an enclosure to allow a hot bus transfer of shared MCCs during outages.

Evaluation

The shared MCCs affected by this change are part of the Non-Class 1E AC power system. The change includes the necessary provisions to assure that no damage occurs to the equipment affected by the change. The function or operation of the MCCs will not be altered. No new failure modes are created. No accident mitigating systems are adversely affected and no accident analyses are affected. No safety functions or safety parameters have been adversely affected. Therefore, no unreviewed safety question was created by this change.

OP/0/A/6700/06, Change #10

Description

This procedure change provides steps to allow an inner or outer airlock door to be returned to service if problems with one of the airlock doors arises.

Evaluation

This change enhances the procedure by providing a method to ensure compliance with Containment Closure requirements with one airlock door. The airlock used for containment isolation will perform as required and satisfy all design basis requirements. This change does not affect the plant design basis or accident analysis given in the FSAR and therefore, does not create an unreviewed safety question.

RP/0/A/5000/07, Retype #7

Description

This changes modifies the requirements for securing certain ventilation systems during a Tornado Watch or Warning in York County.

Evaluation

Protection of the Auxiliary Building will be maintained by quickly shutting down the ventilation systems and isolating them from the unit vent. Additionally, the analysis performed demonstrates that for the design basis tornado, no structures in the Auxiliary Building would be damaged even if the tornado isolation was not accomplished prior to the tornado striking the unit vent. Keeping the ventilation systems running for as long as possible minimizes the potential for equipment failure within the plant. Tornado protection is assured as intended in the original design of Catawba. Therefore, no unreviewed safety question was created by this change.

TN/2/A/0613/00/02A, Rev. 0

Description

This procedure implements NSM CN-20613, which installs a local annunciator that will alarm on low air storage tank pressure.

Evaluation

The new instrumentation (except for pressure switches) is safety related and the instrument is seismically mounted. The new instruments have been approved for this application by Design Calculation CNC-1503.13-00-0358. This work was done in a Mode when the affected D/G was not required. This modification did not adversely affect the operation of any safety related component. Therefore, no unreviewed safety question was created by this modification.

TN/2/A/0614/00/02A, Rev. 0

Description

This procedure implements NSM CN-20614, which installs a local annunciator that will alarm on low air storage tank pressure.

Evaluation

The new instrumentation (except for pressure switches) is safety related and the instrument is seismically mounted. The new instruments have been approved for this application by Design Calculation CNC-1503.13-00-0358. This work was done in a Mode when the affected D/G was not required. This modification did not adversely affect the operation of any safety related component. Therefore, no unreviewed safety question was created by this modification.

TT/2/A/9100/56, Rev. 0

Description

This procedure determines the time required to recirculate the Boric Acid Tank (BAT) by injecting lithium hydroxide into the BAT in order that a representative sample may be obtained.

Evaluation

Although lithium hydroxide is not normally added to the BAT, it is present in the BAT in varying amounts. Any lithium that is in the BAT will be removed by the cation demineralizer after it is introduced into the Reactor Coolant System. All equipment operations, except for those added per the associated modification, are made per previously approved and evaluated procedures. No previously evaluated accident analysis is affected. The BAT boron concentration will not be reduced below the Technical Specification limit. Therefore, this procedure does not create an unreviewed safety question.

TT/2/A/9200/67, Rev. 0

Description

The purpose of this test is to develop a head curve for the Boric Acid Recirculation pump and compare it with the manufacturer's supplied head curve.

Evaluation

This test does not involve any hardware modifications or operations outside normal limits. This test does not adversely affect any equipment important to safety. No new failure modes are created. The margin of safety as defined in the basis of any Technical Specification is not affected by the performance of this test. Therefore, this procedure does not create an unreviewed safety question.

PT/1/A/4200/21A, Change #30

Description

This procedure change prevents possible runout conditions for the KC pumps should a blackout occur while either 1KC-56A or 1KC-81B is open for stroke time testing.

Evaluation

This procedure change reduces the probability of a malfunction of equipment important to safety. It does not increase the probability of an accident previously evaluated in the

FSAR or an accident which is different from any which have been evaluated in the FSAR. This change lessens the consequences of accidents by providing more reliable service to engineered safeguards loads after an accident. The margin of safety as defined in the bases of any Technical Specification will not be reduced. Therefore, this procedure change does not create an unreviewed safety question.

PT/2/A/4350/15B, Change #10

Description

This change adds a section to the procedure so that the response of the D/G to a step load increase while on an isolated bus can be measured.

Evaluation

The test method used is identical to that used in PT/2/A/4350/12, Section 12.1 except that different pumps are being used to provide the load on the D/G. The pumps being started will be operated in their normal alignment. The pumps and the D/G will be operated in configurations which are common to other procedures. This test has no affect on the ability of the D/G to supply essential power to its train should the opposite train D/G be unable to supply its loads. Therefore, this procedure change does not create an unreviewed safety question.

PT/2/A/4200/09C, Change #3

Description

This change allows testing of the Boron Dilution Mitigation System (BDMS) when an NV pump is in operation.

Evaluation

This change will allow a swap of suction sources from the VCT to the FWST while the NV pump is operating. This change of suction sources with the pump operating is the original design of the system. No new equipment malfunction is created, thus the consequences of equipment malfunction remains the same. The margin of safety as defined in the basis of the Technical Specifications is not reduced. Therefore, this procedure change does not create an unreviewed safety question.

PT/1/A/4250/03A, Change #31

Description

This change provides further guidance and contingency actions for the operator concerning the performance of this test.

Evaluation

No structures, systems or components are affected by this change. None of the changes significantly affect the procedure or alter the test method in any way. This change will decrease the probability of safety equipment malfunction because the procedure now requires adequate verification that the pump miniflow valve is operating properly before the test can continue. Therefore, this procedure change does not create an unreviewed safety question.

PT/1/A/4250/03B, Change #23

Description

This change provides further guidance and contingency actions for the operator concerning the performance of this test.

Evaluation

No structures, systems or components are affected by this change. None of the changes significantly affect the procedure or alter the test method in any way. This change will decrease the probability of safety equipment malfunction because the procedure now requires adequate verification that the pump miniflow valve is operating properly before the test can continue. Therefore, this procedure change does not create an unreviewed safety question.

PT/2/A/4250/03B, Change #17

Description

This change provides further guidance and contingency actions for the operator concerning the performance of this test.

Evaluation

No structures, systems or components are affected by this change. None of the changes significantly affect the procedure or alter the test method in any way. This change will decrease the probability of safety equipment malfunction because the procedure now requires adequate verification that the pump miniflow valve is operating properly before the test can continue. Therefore, this procedure change does not create an

unreviewed safety question.

PT/2/A/4250/03A, Change #20

Description

This change provides further guidance and contingency actions for the operator concerning the performance of this test.

Evaluation

No structures, systems or components are affected by this change. None of the changes significantly affect the procedure or alter the test method in any way. This change will decrease the probability of safety equipment malfunction because the procedure now requires adequate verification that the pump miniflow valve is operating properly before the test can continue. Therefore, this procedure change does not create an unreviewed safety question.

PT/2/A/4250/03C, Change #39

Description

This change provides further guidance and contingency actions for the operator concerning the performance of this test.

Evaluation

No structures, systems or components are affected by this change. None of the changes significantly affect the procedure or alter the test method in any way. This change will decrease the probability of safety equipment malfunction because the procedure now requires adequate verification that the pump miniflow valve is operating properly before the test can continue. Therefore, this procedure change does not create an unreviewed safety question.

PT/0/A/4400/22B, Retype

Description

This change made several administrative changes to the procedure and added steps to establish flow to the KD Heat Exchangers in order to achieve higher RN flow rates.

Evaluation

These changes do not affect the basic test method given in the procedure and do not represent a significant change. In addition, these changes do not affect systems, structures and components that are addressed in the FSAR in a significant manner. Therefore, this procedure change does not create an unreviewed safety question.

PT/2/A/4400/11

Description

The purpose of this procedure is to adjust, if necessary, the RN supply flows to the Unit 2 UCVUs, LCVUs, NC Pump Motor Coolers, IIVUs, PD Pump Drive Cooler, ABSUs, and FHASU.

Evaluation

This test does not degrade the RN system in any way. The essential components used are placed into their fail safe position. No equipment malfunctions, either new or previously evaluated are increased or created by this test. The performance of this test does not make either train of RN inoperable. Therefore, this procedure does not create an unreviewed safety question.

MP/0/A/7450/51, Rev. 0

Description

This new procedure provides guidance to a qualified maintenance technician for performing corrective maintenance on the YC chillers.

Evaluation

Maintenance performed under this procedure was reviewed against approved vendor manuals, design documents, and station procedures to ensure that corrective maintenance controlled by this procedure returns the chiller to the as-built, as-designed condition. Therefore, this procedure does not create an unreviewed safety question.

MP/0/A/7450/38, Rev. 0

Description

This new procedure provides guidance to a qualified maintenance technician for performing corrective maintenance on the YC chillers.

Evaluation

Maintenance performed under this procedure was reviewed against approved vendor manuals, design documents, and station procedures to ensure that corrective maintenance controlled by this procedure returns the chiller to the as-built, as-designed condition. Therefore, this procedure does not create an unreviewed safety question.

MP/0/A/7450/27, Retype #2

Description

This retype added several administrative changes to the procedure for corrective maintenance on the Hydrogen Skimmer Fans.

Evaluation

This procedure was compared with the FSAR, Technical Specifications, design documents, and station procedures to ensure that the actions it controls maintain the Hydrogen Skimmer Fans in their as-built, as-designed condition. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7450/24, Retype #3

Description

This procedure retype provides more detailed guidance to a qualified maintenance technician for performing corrective maintenance on the VC chillers.

Evaluation

Maintenance performed under this procedure was reviewed against approved vendor manuals, design documents, and station procedures to ensure that corrective maintenance controlled by this procedure returns the chiller to the as-built, as-designed condition. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7600/112, Retype #1

Description

This procedure retype incorporated steps into the procedure to assist in valve

disassembly and reassembly.

Evaluation

Maintenance performed under this procedure was reviewed against approved vendor manuals, design documents, and station procedures to ensure that corrective maintenance controlled by this procedure returns the valve to the as-built, as-designed condition. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7450/30, Retype #1

This retype added several administrative changes to the procedure for corrective maintenance on the Auxiliary Shutdown Panel Air Conditioning Units.

Evaluation

This procedure was compared with the FSAR, design documents, and station procedures to ensure that the actions it controls maintain the Auxiliary Shutdown Panel Air Conditioning Units in their as-built, as-designed condition. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7450/20, Retype #2

This retype added several administrative changes to the procedure for corrective maintenance on the Auxiliary Shutdown Panel Air Conditioning Units.

Evaluation

This procedure was compared with the FSAR, design documents, and station procedures to ensure that the actions it controls maintain the Auxiliary Shutdown Panel Air Conditioning Units in their as-built, as-designed condition. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7450/15, Retype #2

Description

This procedure retype provides more detailed guidance to a qualified maintenance technician for performing corrective maintenance on the YC chiller relief valves.

Evaluation

Maintenance performed under this procedure was reviewed against approved vendor manuals, design documents, and station procedures to ensure that corrective maintenance controlled by this procedure returns the chiller to the as-built, as-designed condition. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7150/70, Retype #2

This retype added several administrative changes to the procedure for corrective maintenance on the Centrifugal Charging Pump (CCP) Main Lube Oil Pump.

Evaluation

This procedure was compared with vendor manuals, design documents, and station procedures to ensure that the actions it controls maintain the CCP Main Lube Oil Pump in its as-built, as-designed condition. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7150/33, Retype #2

Description

This retype changed the scope of this procedure to cover only the removal and replacement of the Reactor Coolant Pump internals.

Evaluation

This procedure was reviewed against vendor manuals (including MEC tooling manual), design documents, and station procedures to ensure that the actions it controls return the pump to its as-built, as-designed condition. These actions will ensure the pump's compliance with the FSAR accident analysis. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7450/22, Retype #2

Description

This procedure retype provides more detailed guidance to a qualified maintenance technician for performing corrective maintenance on the YC chiller oil coolers.

Evaluation

Maintenance performed under this procedure was reviewed against approved vendor manuals, design documents, and station procedures to ensure that corrective maintenance controlled by this procedure returns the chiller to the as-built, as-designed condition. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7450/21, Retype #2

Description

This procedure retype provides more detailed guidance to a qualified maintenance technician for performing corrective maintenance on the YC chiller condensers.

Evaluation

Maintenance performed under this procedure was reviewed against approved vendor manuals, design documents, and station procedures to ensure that corrective maintenance controlled by this procedure returns the chiller to the as-built, as-designed condition. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7450/13, Retype #2

This retype added several administrative changes to the procedure for corrective maintenance on the Auxiliary Shutdown Panel Air Conditioning Unit Condensers.

Evaluation

This procedure was compared with the FSAR, design documents, and station procedures to ensure that the actions it controls maintain the Auxiliary Shutdown Panel Air Conditioning Units in their as-built, as-designed condition. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7450/04, Retype #2

Description

This procedure retype provides more detailed guidance to a qualified maintenance technician for performing corrective maintenance on the YC chiller oil pump, oil heater and oil sump thermometer.

Evaluation

Maintenance performed under this procedure was reviewed against approved vendor manuals, design documents, and station procedures to ensure that corrective maintenance controlled by this procedure returns the chiller to the as-built, as-designed condition. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7450/03, Retype #3

Description

This procedure retype provides more detailed guidance to a qualified maintenance technician for performing corrective maintenance on the YC chiller.

Evaluation

Maintenance performed under this procedure was reviewed against approved vendor manuals, design documents, and station procedures to ensure that corrective maintenance controlled by this procedure returns the chiller to the as-built, as-designed condition. Therefore, this procedure retype does not create an unreviewed safety question.

PT/0/A/4450/04A, Change #15

Description

This restricted change deleted the acceptance criteria for the 2A Filtered Exhaust Fan in Section 12.6.

Evaluation

The VA system is not an accident initiator as described in the FSAR. No credit is taken for VA in the FSAR Chapter 15 Dose Analysis. The ESF functions of the VA system were verified by performing a LOCA alignment of B Train VA and verifying that ECCS Pump Room Flows were returned to their initial values after 2ADF-D-6 was repaired. All equipment support functions provided by VA are still satisfied. Therefore, this restricted procedure change does not create an unreviewed safety question.

PT/1/A/4400/03E

Description

The purpose of this procedure is to assure that the automatic operation of the Component Cooling (KC) miniflow valves conforms to design criteria.

Evaluation

This procedure does not have an adverse impact on the flow and heat removal capacity for any loads normally aligned to the KC system. The KC pump flow rate remains within limits associated with normal plant operation. No new failure modes are created. The procedure has no adverse affect on the post accident ability of the operating KC train to remove heat from its own loads. Therefore, this procedure does not create an unreviewed safety question.

PT/2/A/4400/03D, Change #1

Description

This change adjusts the flow balance of the KC system due to the implementation of NSM-20525 which added KC cooling to the Auxiliary Shutdown Panel Supply Units.

Evaluation

The justification for this change is given in NSM-20525. See this NSM for further details.

PT/1/A/4250/03E, Retype

Description

This change implements a new method for isolating CF flow to the S/G upper nozzles to ensure that CA flows are set under the proper system conditions.

Evaluation

The double isolation of CF flow to the S/G upper nozzles ensures that CA flow is the only flow being measured by this test. The change does not affect the test method in a manner that would decrease the margin of safety as defined by Technical Specifications. A flow balance is performed on the CA pumps individually to ensure that the other two CA pumps remain available to mitigate the consequences of an accident. An auto-start signal would fail the flow control valves open, and the pump under test would also be capable of performing its accident mitigation function. Therefore, this procedure retype does not create an unreviewed safety question.

PT/2/A/4250/03E, Retype

Description

This change implements a new method for isolating CF flow to the S/G upper nozzles to ensure that CA flows are set under the proper system conditions.

Evaluation

The double isolation of CF flow to the S/G upper nozzles ensures that CA flow is the only flow being measured by this test. The change does not affect the test method in a manner that would decrease the margin of safety as defined by Technical Specifications. A flow balance is performed on the CA pumps individually to ensure that the other two CA pumps remain available to mitigate the consequences of an accident. An auto-start signal would fail the flow control valves open, and the pump under test would also be capable of performing its accident mitigation function. Therefore, this procedure retype does not create an unreviewed safety question.

OP/2/A/6150/01, Retype #8

Description

This procedure change made several administrative changes and step enhancements associated with the fill of the NC system.

Evaluation

The operation of the NC System as discussed in FSAR Sections 3.6.1.1.3, 3.9.1.1, 5.1, 5.3.2, 5.4.10, 5.4.11, 5.4.13, 7.6.21, and the accident analysis of Chapter 15 will not be changed. No system will be degraded as a result of these changes. Therefore, this procedure retype does not create an unreviewed safety question.

IP/1/A/3110/07A, Change #5

Description

This change revises the KC pump low flow setpoint in order to provide adequate flow capacity to preclude pump-to-pump interaction during two-pump (per train) operation. This change is being made as a result of exempt change CE-3157.

Evaluation

The safety evaluation for this change is documented in Exempt Change CE-3157.

IP/1/A/3110/07B, Change #4

Description

This change revises the KC pump low flow setpoint in order to provide adequate flow capacity to preclude pump-to-pump interaction during two-pump (per train) operation. This change is being made as a result of Exempt Change CE-3157.

Evaluation

The safety evaluation for this change is documented in Exempt Change CE-3157.

IP/2/A/3110/07A, Change #4

Description

This change revises the KC pump low flow setpoint in order to provide adequate flow capacity to preclude pump-to-pump interaction during two-pump (per train) operation. This change is being made as a result of exempt change CE-3158.

Evaluation

The safety evaluation for this change is documented in Exempt Change CE-3158.

IP/2/A/3110/07B, Change #5

Description

This change revises the KC pump low flow setpoint in order to provide adequate flow capacity to preclude pump-to-pump interaction during two-pump (per train) operation. This change is being made as a result of Exempt Change CE-3158.

Evaluation

The safety evaluation for this change is documented in Exempt Change CE-3158.

IP/2/A/3222/00A, Change #25

Description

This change revised the procedure to implement Digital Feedwater Control NSM CN-20544 and to reflect a change to Technical Specification 2.2.1 (Table 2.2-1).

Evaluation

This procedure change was developed to ensure that instruments are properly calibrated to meet Design Engineering Specifications. See the safety evaluation for NSM CN-20544 for further details.

IP/2/A/3222/00B, Change #30

Description

This change revised the procedure to implement Digital Feedwater Control NSM CN-20544 and to reflect a change to Technical Specification 2.2.1 (Table 2.2-1).

Evaluation

This procedure change was developed to ensure that instruments are properly calibrated to meet Design Engineering Specifications. See the safety evaluation for NSM CN-20544 for further details.

IP/2/A/3222/00C, Change #25

Description

This change revised the procedure to implement Digital Feedwater Control NSM CN-20544 and to reflect a change to Technical Specification 2.2.1 (Table 2.2-1).

Evaluation

This procedure change was developed to ensure that instruments are properly calibrated to meet Design Engineering Specifications. See the safety evaluation for NSM CN-20544 for further details.

IP/2/A/3222/00D, Change #24

Description

This change revised the procedure to implement Digital Feedwater Control NSM CN-20544 and to reflect a change to Technical Specification 2.2.1 (Table 2.2-1).

Evaluation

This procedure change was developed to ensure that instruments are properly calibrated to meet Design Engineering Specifications. See the safety evaluation for NSM CN-20544 for further details.

PT/1/A/4450/05B, Retype

Evaluation

This retype made major changes to the test method and step sequencing involved in testing the Containment Air Return and Hydrogen Skimmer Fans.

Evaluation

The alignments used in this procedure operate the systems as designed using the safety circuitry. The system is not placed in any unusual alignments that would create or increase the probability of an accident. The margin of safety as defined in the basis of any Technical Specification is not reduced. Placement of jumpers and operation of equipment is independently verified. Therefore, this retype does not create an unreviewed safety question.

PT/0/A/4400/08B, Change #8

Description

This change allows the RN Flow Balance, RN Train B Performance Test, and RN Pump 2B flow versus pressure data profile to be performed simultaneously.

Evaluation

The RN system is not degraded by these tests. The RN pumps are not operated outside their design conditions. The performance of these tests do not make any train of RN inoperable. The margin of safety as defined in the basis of any Technical Specification is not reduced. Therefore, this procedure change does not create an unreviewed safety question.

MP/0/A/7150/97, Rev. 0

Description

This procedure describes the preventative maintenance and inspection of the NV

Standby Makeup Pump Pulsation Dampers.

Evaluation

This procedure was reviewed against approved vendor manuals, design documents and station procedures to ensure that the activities controlled by this procedure return the equipment to the as-built, as-designed condition. These actions ensure compliance with the FSAR accident analysis. Therefore, this procedure does not create an unreviewed safety question.

MP/0/A/7200/05, Change #3

Description

This change revised the tolerances per the vendor manual for steps in Section 11.0 and Enclosure 13.1.

Evaluation

This change was reviewed against approved vendor manuals, design documents and station procedures to ensure that the activities controlled by this procedure return the equipment to the as-built, as-designed condition. These actions ensure compliance with the FSAR accident analysis. Therefore, this procedure does not create an unreviewed safety question.

MP/0/A/7150/01, Retype #4

Description

This change made several administrative changes and safety enhancements to the procedure concerning the Ice Condenser baskets.

Evaluation

This procedure has been compared to Technical Specifications, the FSAR, design documents, and station procedures to ensure that the actions it controls maintains the ice baskets in their as-built, as-designed condition. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7150/05, Retype #8

Description

This change made several administrative changes and safety enhancements to the procedure concerning the Ice Condenser baskets.

Evaluation

This procedure has been compared to Technical Specifications, the FSAR, design documents, and station procedures to ensure that the actions it controls provide accurate ice basket weights to support the surveillance requirements of Technical Specifications and the accident analysis as described in the FSAR. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7150/06, Retype #5

Description

This change made several administrative changes and safety enhancements to the procedure concerning the Ice Condenser lower inlet doors.

Evaluation

This procedure has been compared to Technical Specifications, the FSAR, design documents, and station procedures to ensure that the actions it controls comply with established surveillance requirements of Technical Specifications and maintain the doors in their as-built, as-designed condition. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7150/07, Retype #6

Description

This change made several administrative changes to the procedure concerning the Ice Condenser intermediate deck doors.

Evaluation

This procedure has been compared to Technical Specifications, the FSAR, design documents, and station procedures to ensure that the actions it controls comply with established surveillance requirements of Technical Specifications and maintain the doors in their as-built, as-designed condition. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7150/03, Retype #4

Description

This change made several administrative changes and safety enhancements to the procedure concerning the Ice Condenser floor drains.

Evaluation

This procedure has been compared to Technical Specifications, the FSAR, design documents, and station procedures to ensure that the actions it controls comply with established surveillance requirements of Technical Specifications and maintain the floor drains in their as-built, as-designed condition. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7300/03, Retype #3

Description

This retype incorporates the complete Pneumatic Control Valve Actuator Assembly, flow rotometer, and flow settings into the procedure to organize and consolidate closely interrelated component sequences under one procedure.

Evaluation

These changes ensure continued as designed operational performance and maintenance of material/equipment excellence. These changes do not adversely affect any FSAR section in a significant manner. These changes do not adversely effect equipment operability and do not create an unreviewed safety question.

MP/0/A/7450/19, Retype #2

Description

This change made several administrative changes and instruction enhancements to the procedure concerning Clarage Type A.F.P. 1550A Series Fans.

Evaluation

This procedure has been compared to Technical Specifications, the FSAR, design documents, and station procedures to ensure that the actions it controls maintain the fans in their as-built, as-designed condition. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7600/04, Retype #6

Description

This change made several administrative changes and instruction enhancements to the procedure concerning Kerotest "Y" type check valves.

Evaluation

This procedure has been reviewed against approved vendor manuals, design documents, and station procedures to ensure that the corrective maintenance controlled by this procedure returns the valve to its as-built, as-designed condition. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7450/16, Retype #2

Description

This change made several administrative changes and instruction enhancements to the procedure concerning the Auxiliary Shutdown Panel Air Conditioning Unit Fans.

Evaluation

This procedure has been compared to the FSAR, design documents, and station procedures to ensure that the actions it controls maintain the fans in their as-built, as-designed condition. Therefore, this procedure retype does not create an unreviewed safety question.

MP/0/A/7450/32, Change #1

Description

Modified the torque value for the frame to casing bolts for the YC chilled water pump per CEVN #2393. This ensures that the proper torque value is used.

Evaluation

Maintenance performed under this procedure was reviewed against approved vendor manuals, design documents, and station procedures to ensure that corrective maintenance controlled by this procedure returns the pump to the as-built, as-designed condition. Therefore, this procedure change does not create an unreviewed safety question.

MP/0/A/7450/03, Change #2

Description

This procedure change deleted steps that used to direct the loosening of compressor hold down bolts. These steps did not meet the seismic requirements of QA Condition 4.

Evaluation

Maintenance performed under this procedure was reviewed against approved vendor manuals, design documents, and station procedures to ensure that corrective maintenance controlled by this procedure returns the chiller to the as-built, as-designed condition. Therefore, this procedure change does not create an unreviewed safety question.

MP/0/A/7150/16A, Change #6

Description

This change added steps to provide a signoff of QA verification of new parts, and added guidance on adjusting lube oil pressure after pump maintenance has been performed.

Evaluation

These changes have been reviewed, verified against, and are in compliance with vendor instruction manuals, and the appropriate station documents. No significant changes to structures, systems or components as described in the FSAR are being made by this change. No procedures, as described in the FSAR are significantly affected by this change. Therefore, this procedure change does not create an unreviewed safety question.

TN/2/A/0575/00/01A

Description

This implementation procedure provides guidance for the installation of new piping and an ultrasonic flow meter for the Nuclear Service Water (RN) supply to 2EMF45A.

Evaluation

The modification was installed when the system was drained and isolated and not required by Technical Specifications. This procedure along with other work control procedures adequately governed the return to service of all components/systems affected by this modification. None of the plant operating parameters were adversely affected by this procedure. The margin of safety as defined in the basis of any Technical Specification was not reduced. Therefore, this procedure did not create an unreviewed safety question.

TN/2/A/0575/00/02A

Description

This implementation procedure provides guidance for the installation of new piping and an ultrasonic flow meter for the Nuclear Service Water (RN) supply to 2EMF45B.

Evaluation

The modification was installed when the system was drained and isolated and not required by Technical Specifications. This procedure along with other work control procedures adequately governed the return to service of all components/systems affected by this modification. None of the plant operating parameters were adversely affected by this procedure. The margin of safety as defined in the basis of any Technical Specification was not reduced. Therefore, this procedure did not create an unreviewed safety question.

TN/2/A/0642/00/17A

Description

This procedure provides guidance for the modification of the control circuit wiring on 2RF-389B to provide "limit actuated" torque switch bypass contacts to the valve.

Evaluation

The new torque settings were selected, set, and maintained correctly to accommodate the maximum differential pressure expected on the valve during both normal and abnormal events within the design basis. This work was done with Unit 2 in Modes 5, 6, or no mode. Prior to returning the valve to service, a functional verification and retest was performed to verify valve operability. Therefore, this procedure did not create an unreviewed safety question.

TN/2/A/0642/00/18A

Description

This procedure provides guidance for the modification of the control circuit wiring on 2RF-447B to provide "limit actuated" torque switch bypass contacts to the valve.

Evaluation

The new torque settings were selected, set, and maintained correctly to accommodate the maximum differential pressure expected on the valve during both normal and abnormal events within the design basis. This work was done with Unit 2 in Modes 5, 6, or no mode. Prior to returning the valve to service, a functional verification and retest was performed to verify valve operability. Therefore, this procedure did not create an unreviewed safety question.

TN/2/A/0597/00/01A

Description

This procedure replaces valve 2BB-010B with a new gate valve, item #06H-210.

Evaluation

The containment isolation valve upstream of 2BB-10B was used to satisfy Technical Specification requirements for containment isolation while in Modes 5 and 6. The installation and setup of the new valve was completed prior to entry in to Mode 4. The valve was completely tested in accordance with approved station procedures. The safety related aspects of the BB system were maintained during implementation. Therefore, this procedure did not create an unreviewed safety question.

TN/2/A/0597/00/02A

Description

This procedure replaces valve 2BB-057B with a new gate valve, item #06H-210.

Evaluation

The containment isolation valve upstream of 2BB-57B was used to satisfy Technical Specification requirements for containment isolation while in Modes 5 and 6. The installation and setup of the new valve was completed prior to entry in to Mode 4. The valve was completely tested in accordance with approved station procedures. The safety related aspects of the BB system were maintained during implementation.

Therefore, this procedure did not create an unreviewed safety question.

TN/2/A/0597/00/03A

Description

This procedure replaces valve 2BB-021B with a new gate valve, item #06H-210.

Evaluation

The containment isolation valve upstream of 2BB-21B was used to satisfy Technical Specification requirements for containment isolation while in Modes 5 and 6. The installation and setup of the new valve was completed prior to entry in to Mode 4. The valve was completely tested in accordance with approved station procedures. The safety related aspects of the BB system were maintained during implementation. Therefore, this procedure did not create an unreviewed safety question.

TN/2/A/0597/00/04A

Description

This procedure replaces valve 2BB-061B with a new gate valve, item #06H-210.

Evaluation

The containment isolation valve upstream of 2BB-61B was used to satisfy Technical Specification requirements for containment isolation while in Modes 5 and 6. The installation and setup of the new valve was completed prior to entry in to Mode 4. The valve was completely tested in accordance with approved station procedures. The safety related aspects of the BB system were maintained during implementation. Therefore, this procedure did not create an unreviewed safety question.

TN/2/A/0487/00/02A

Description

This procedure is associated with NSM CN-20487 and installed the BAT recirculation pump, recirculation piping, manual isolation valves, check valves, and made the required tie-ins to the BAT, NB, and WL piping.

Evaluation

The new BAT recirculation system was tested to verify system operability. No new failure modes or operating characteristics are introduced by this modification. All systems affected by this procedure will still be able to perform their intended functions. The margin of safety as given in any Technical Specification is not reduced. Therefore, this procedure did not create an unreviewed safety question.

TN/2/A/0569/00/01A

Description

This procedure provides guidance for installing the ICCM-86 System Software Upgrade PROMS V8.2 and remote Display PROMS V1.1 provided by Westinghouse for the RV'IS system.

Evaluation

No work was begun until Unit 2 was in Mode 6 when this system was not required. All work was completed in Mode 6 and no mode. Channel calibrations for RVLIS were completed prior to Mode 3. No system was prevented from performing any function important to safety while this work was performed. The margin of safety as defined in the basis of the Technical Specifications was unaffected. Therefore, this procedure did not create an unreviewed safety question.

TN/2/B/0581/00/01A

Description

This procedure provided guidance for the work activities necessary for the replacement of the high temperature cutout switches on the Ice Condenser (NF) Air Handling Unit Defrost Heaters for Unit 2.

Evaluation

The cooling capacity of the NF AHUs as stated in the design basis was maintained during implementation of this modification. All appropriate retesting was performed to ensure that the new switches perform all of their intended functions per the design basis. No other systems were affected by this procedure. This procedure did not revise the margin of safety as stated in the basis of Technical Specifications. Therefore, this procedure did not create an unreviewed safety question.

TN/1/A/1006/00/01A, Initial Issue (Work Unit 01 - Cable Pulling)

Description

This procedure controls the installation of 7 new cables for NSM CN-11006, Rev. 0 and the "as-needed" supports to accommodate these cables.

Evaluation

Implementation of this procedure does not affect any operating procedure and require no isolation. This procedure will not involve termination of these cables. Firestops opened by the pulling of these cables will be resealed by applicable steps specified in this procedure.

TN/1/A/1006/00/02A, Initial Issue (Work Unit 02 - Wiring)

Description

This procedure provides guidance for the wiring implementation of NSM CN-11006. Hydraulic Isolator alarm inputs for both trains of RVLIS are currently supplied power through a single non-1E source. Implementation of this procedure will eliminate the single failure modes and improve reliability of the Hydraulic Isolator inputs by independent 1E power sources for each train.

Evaluation

This procedure will implemented in Modes 5, 6, or No Mode, with RVLIS out of service. This procedure will be completed prior to NC System Fill & Vent. Prior to the completion of this procedure, IAE will calibrate affected pressure switches. No other system used for any phase of power generation, shutdown cooling, fuel handling, or radwaste treatment is adversely affected by this procedure.

TN/1/A/1184/00/01A, Initial Issue

Description

This procedure provides guidance to re-power the Train A Boron Dilution Mitigation System (ENC) referred to as Train A Neutron Flux Monitoring System per NSM CN-11184. During normal operations, power will be supplied from a 1E power source and during a SSF event, from a SSF power source.

Evaluation

Necessary fire watches will be established when required. The system and panels affected by implementation of this procedure are safety related. Wiring installed by this

procedure affect systems which are energized. However, this procedure will be implemented in compliance with applicable Tech Specs. Limits & Precautions, warnings, and notes are listed in the procedure such that systems important to safety are not degraded.

PT/2/A/4200/09, Change # 74

Description

This change to the Engineered Safety Features Actuation Test adds an enclosure to the procedure to retest a sequencer relay after contacts were changed.

Evaluation

Only VC/YC and RN A train are rendered inoperable by this change. Train B is not affected. All other systems are operable since the sequencer will automatically be removed from test in the event of an actual blackout on Unit 2. All systems will continue to operate in their normal alignment.

PT/2/A/4200/01C, Change # 65

Description

This change to the Type C Leak Rate Test for valves 2NI-95A and 471, increases the allowable leakage 1760 SCCM.

Evaluation

Increasing the allowable leakage to this value for these valves does not exceed the criteria specified by Tech Specs or 10CFR50, Appen. J and brings the Type B & C leakage total to 11,473.7 SCCM. Tech Specs allows a La leakage for all B & C penetrations equal to 82,979 SCCM.

PT/1/A/4400/03H, Change #1

Description

This procedure change deleted the "Required Unit Status" requirement of having NC loops filled and added a note explaining guidance for the control room operator upon loss of the train under test ND system.

Evaluation

During the performance of this test, the valve alignment will require closing the KC train under test, cross over valves. This will isolate KC cooling water to the opposite

train ECCS components. The control room operator guidance for action to be taken upon loss of an applicable train of the NS system is no different than what would be required of the control room operator upon the loss of a train of ND while in either Mode 5 (loops filled or loops not filled) if this test was not in progress. This procedure will have no adverse affect on the post accident ability of the operating KC train to remove heat from its loads. No operating limits nor design limits will be affected by this procedure change. Having the component cooling water flow to all ECCS components properly balanced will ensure adequate cooling protection for all components. There are no unreviewed safety questions associated with this procedure.

PT/1/A/4400/01, Change #21

Description

The purpose of this procedure change is to allow for the determination of the runout limit of the NV pumps with suction from the FWST.

Evaluation

This procedure will be performed in No Mode with no fuel in the core. With the reactor vessel head removed there is no possibility of over pressurizing the reactor coolant system. The NV system is required to perform no safety function during No Mode operations. All affected ECCS components will be operated in accordance with design limits and general operating procedures. The NV pumps will be carefully monitored when operating beyond stated runout conditions and the test terminated as the onset of cavitation or any other adverse operating condition. This procedure change does not involve an unreviewed safety question.

OP/1/A/6700/01, Change #210

Description

This procedure change revised the data book to include additional logic in Table 3.1.8-Turbine Runbacks. The loss of load runback item will be revised to include runback on "Loss of Red and Yellow Bus Tie".

Evaluation

This modification provides increased reliability for the EBA and EPA systems. No unintended interfaces are created among the EPA, EBA, ERE, and ITE systems. No sneak circuits are created. Loads on power supplies remain within design specifications. No other equipment used for any phase of either power generation, shutdown cooling, fuel handling, or radwaste treatment is affected. No equipment used for accident mitigation is affected. Neither any setpoint, design limit, nor operating parameter is affected. There are no unreviewed safety questions associated with this procedure change.

TT/1/A/9200/67

Description

This procedure was written as a retest for exempt change CE-2486. The exempt change wired the normally closed contact on relay GC in the trip circuit in parallel with the manual trip switch.

Evaluation

The 4160VAC blackout bus will be energized through 1GTA(B). The blackout bus will remain energized during the test and the bus is not required to mitigate any accident. The only equipment affected by this test are the breaker, 1ETA(B)2, and the load sequencer which will be in test. In the event of a 4160VAC essential bus blackout or LOCA, the sequencer will automatically come out of test mode. There is no unreviewed safety question associated with this procedure.

PT/1/A/4400/03H

Description

The purpose of this procedure is to obtain differential pressure data across the KC and NC heat exchangers for design engineering's Woods Model for the KC system, resolve PIP 0-C92-1044, and to flow balance per train of KC under various plant conditions.

Evaluation

This procedure will not have an adverse impact on the flow and heat removal capacity for any loads normally aligned to the KC system. The procedure has a requirement that the residual heat removal system heat exchanger inlet temperature be < 200 degrees Fahrenheit. This is well within the normal operating limits of the KC system. This procedure will have no adverse affect on the post accident ability of the operating KC train to remove heat from its loads. Neither any fission product barrier nor any source term evaluation is adversely affected by this procedure. No operating parameters nor design limits will be affected by this procedure. There are no unreviewed safety questions associated with this procedure.

PT/1/A/4350/15B

Description

This procedure revision incorporated changes resulting from exempt change 11149.

Evaluation

Only DG 1B is made inoperable by this test; DG 1A will still be available to supply the A-train 4160V essential bus. The DG will be run in a normal alignment, both paralleled to the grid and in an idling condition, by approved operating procedures.

There are no unreviewed safety questions associated with this procedure change.

OP/1/A/6150/01, Retype #14

Description

This retype incorporated the changes necessary to use the vacuum refill process along with numerous human factor and editorial changes.

Evaluation

The operation of the NC system as discussed in the FSAR and the accident analysis of Chapter 15 will not be changed. No system will be degraded as result of these changes. No unreviewed safety questions is judged to be created.

IP/1/A/3710/29A

Description

The EDSFI audit identified a concern related to the 125 VDC system's ability to provide minimum voltage at inverter 1EID when the smaller battery was powering two channels simultaneously. This test will determine the system response with various configurations to provide actual test data.

Evaluation

This test will be performed in No Mode. The technical specifications for the 125VDC sources have no applicability in No Mode. No actions performed in these tests will affect any activities in the spent fuel storage buildings. There is no impact to any liquid or gaseous radioactive waste system. If these tests result in loss of voltage on the affected bus, the B train VF components will be available as required by TS 3.9.11 to mitigate this accident. Loss of function of structures, systems, or components necessary to mitigate accidents is not possible given the requirements of the tests and limiting failures to those components on the affected panelboard. These tests do not create an unreviewed safety question.

MP/0/A/7650/109, Retype #6

Description

The major focus of this procedure revision is to incorporate instructions to perform and document differential pressure (DP) testing of the NS Hx RN Isolation Valves during flush of Hx after chemical cleaning.

Evaluation

The cleaning activity does not change or adversely affect any safety limits or hx design specifications. Pressures, temperatures, and flow rates generated using the temporary

pump skid do not challenge any of the Hx design specifications. Flow rate through the skid and Hx does not impose abnormal conditions that could lead to tubing damage or bundle integrity degradation. There are no unreviewed safety questions associated with this procedure change.

PT/1/A/4200/09

Description

This procedure change incorporated various procedure enhancements into the ESF actuation periodic test.

Evaluation

The opposite train of the one under test will remain operable during the test. The opposite train is capable of fulfilling any required safety functions. Testing is performed in accordance with the FSAR and Technical Specifications. The most significant change is to have the pumps running prior to the test so that they may be load shed. This does not affect the systems in a significant manner since the pumps would run after the actuation signal regardless of whether they are running prior to the test. There are no unreviewed safety questions associated with this change.

TT/1/A/9200/66

Description

This procedure allows for the off-line testing of the Emergency Bearing Oil Pumps (EBOPs) for the main turbine and the main feedwater pump turbines.

Evaluation

The tested equipment is considered to be Non-IE class by the FSAR. This equipment is not required for safe shutdown of the reactor. The systems are tested while the turbines are in the tripped condition and they are not placed in any abnormal condition. Protective trip functions for the main turbine and feedwater pump turbines are not challenged in any way. Therefore, this procedure does not create an unreviewed safety question.

TN/1/B/1010/00/01A

Description

This procedure provided guidance on implementing NSM CN-11010 which deleted the automatic start function of the FWST Missile Wall Sump Pump and replaced it with a

manual start capability.

Evaluation

All physical wiring and device changes were evaluated in the safety evaluation for NSM CN-11010, Rev. 0. A functional test was performed on the sump pump per IP/1/B/3101/01 following implementation of all changes. All components affected by electrical isolations for this procedure were evaluated and determined to have no effect on the safe operation of Unit 1. Therefore, this procedure does not create an unreviewed safety question.

TN/1/B/1199/00/01A

Description

This procedure provides guidance to increase the setpoint on the FWST heaters to 93 Deg F when performing the NS heat exchanger heat capacity test.

Evaluation

No fire boundaries were breached during implementation of this procedure. This procedure was implemented in No Mode when FWST temperature was not restrained by Technical Specifications. This procedure does not affect the margin safety as given in the basis of any Technical Specifications. All components affected by electrical isolations for this procedure were evaluated and determined to have no affect on the safe operation of Unit 1 in No Mode. Therefore, this procedure does not create an unreviewed safety question.

TN/2/B/0402/00/01A

Description

This procedure provided guidance on implementing NSM CN-20402 which deleted the automatic start function of the FWST Missile Wall Sump Pump and replaced it with a manual start capability.

Evaluation

All physical wiring and device changes were evaluated in the safety evaluation for NSM CN-20402, Rev. 0. A functional test was performed on the sump pump per IP/2/B/3101/01 following implementation of all changes. All components affected by electrical isolations for this procedure were evaluated and determined to have no effect on the safe operation of Unit 1. Therefore, this procedure does not create an

unreviewed safety question.

TN/2/B/0583/00/01A

Description

This procedure provides guidance to increase the setpoint on the FWST heaters to 93 DegF when performing the NS heat exchanger heat capacity test.

Evaluation

No fire boundaries were breached during implementation of this procedure. This procedure was implemented in No Mode when FWST temperature was not restrained by Technical Specifications. This procedure does not affect the margin safety as given in the basis of any Technical Specifications. All components affected by electrical isolations for this procedure were evaluated and determined to have no affect on the safe operation of Unit 1 in No Mode. Therefore, this procedure does not create an unreviewed safety question.

TN/2/B/0585/00/01A

Description

This procedure installed new vibration monitoring equipment and deleted the old equipment in 2ELMC0024.

Evaluation

This NSM is non-safety and the installation of this NSM does not have an adverse impact on equipment used for normal plant operation. This NSM does not alter the capability of the Lower Containment Ventilation Units from performing their intended function of maintaining the lower containment compartment temperature within the limits of the safety analysis. Therefore, this procedure does not create an unreviewed safety question.

TN/2/B/0585/00/02A

Description

This procedure installed accelerometers and a sound powered phone on Lower Containment Ventilation Unit 1A.

Evaluation

This NSM is non-safety and the installation of this NSM does not have an adverse impact on equipment used for normal plant operation. This NSM does not alter the capability of the Lower Containment Ventilation Unit from performing its intended function of maintaining the lower containment compartment temperature within the limits of the safety analysis. Therefore, this procedure does not create an unreviewed safety question.

TN/2/B/0585/00/03A

Description

This procedure installed accelerometers and a sound powered phone on Lower Containment Ventilation Unit 1B.

Evaluation

This NSM is non-safety and the installation of this NSM does not have an adverse impact on equipment used for normal plant operation. This NSM does not alter the capability of the Lower Containment Ventilation Unit from performing its intended function of maintaining the lower containment compartment temperature within the limits of the safety analysis. Therefore, this procedure does not create an unreviewed safety question.

TN/2/B/0585/00/04A

Description

This procedure installed accelerometers and a sound powered phone on Lower Containment Ventilation Unit 1C.

Evaluation

This NSM is non-safety and the installation of this NSM does not have an adverse impact on equipment used for normal plant operation. This NSM does not alter the capability of the Lower Containment Ventilation Unit from performing its intended function of maintaining the lower containment compartment temperature within the limits of the safety analysis. Therefore, this procedure does not create an unreviewed safety question.

TN/2/B/0585/00/05A

Description

This procedure installed accelerometers and a sound powered phone on Lower Containment Ventilation Unit 1D.

Evaluation

This NSM is non-safety and the installation of this NSM does not have an adverse impact on equipment used for normal plant operation. This NSM does not alter the capability of the Lower Containment Ventilation Unit from performing its intended function of maintaining the lower containment compartment temperature within the limits of the safety analysis. Therefore, this procedure does not create an unreviewed safety question.

TN/2/B/0585/00/06A

Description

This procedure pulled 4 cables into containment and terminated one end to 2PENT0419. The other ends were terminated to accelerometers on the Lower Containment Ventilation Units.

Evaluation

This NSM is non-safety and the installation of this NSM does not have an adverse impact on equipment used for normal plant operation. This NSM does not alter the capability of the Lower Containment Ventilation Unit from performing its intended function of maintaining the lower containment compartment temperature within the limits of the safety analysis. Therefore, this procedure does not create an unreviewed safety question.

AFP-CNS-5.032, Rev. 1

Description:

This is the Bahnson procedure for maintenance and repair of Barber Coleman actuators. This evaluation is necessary because this is a previously unreviewed procedure and it is described in the FSAR.

Evaluation:

This procedure had been compared with technical specifications, the FSAR, and design documents to ensure that the actions it controls comply with established Duke Power and station requirements to maintain plant equipment in its as-built/as-designed

condition. No USQ exists.

PT/2/A/4250/03F, Initial Issue

Description:

This is a new procedure that has been developed to ensure the operational readiness of the CA system flow optimization circuitry. Flow optimization is designed to ensure that adequate CA flow is provided to the S/Gs under certain combinations of initiating events including a feedwater line break, in conjunction with a motor-driven CA pump failure.

Evaluation:

While the CA pump under test is declared inoperable during the test performance, no activities associated with this procedure will affect the operability of the remaining two CA pumps and their ability to mitigate the consequences of an accident. No new failure modes are introduced which would create the possibility of an accident outside the existing safety analysis. Since the motor breaker for the pump under test will be racked to TEST, no actual pump start will be performed. One motor-driven CA pump and the turbine-driven CA pump will remain operable during the performance of this test.

PT/1/A/4350/02E, Changes 0 to 53

Description:

This procedure is the CA, CF, and turbine interlocks periodic test procedure and includes the following changes:

- Steps have been added within the motor-driven CA pump autostart sections to require the motor breaker for the pump being tested to be racked in-open as a prerequisite. Steps were also added to record the as-found positions of these breakers and to return the breakers to their as-found positions upon completion of the appropriate section. Notes have been added to provide the option to N/A these steps if proceeding from or to another motor-driven CA pump autostart section of the procedure.
- In the enclosure for feedwater isolation on hi-hi S/G level, the requirement to take SSPS to TEST for the train not being tested has been deleted. Steps were added to require manipulation of the P-14 Block switches in order to serve the same purpose.
- Altered the enclosure for feedwater isolation on hi-hi doghouse level to support removal of the interlock between the CF pump discharge valves and the hi-hi doghouse level signal.
- Added the requirement to have the main turbine control valves gagged closed during performance of each turbine trip section.
- In the CF isolation sections and CA pump autostart sections during which a loss

of both feed pumps signal is generated, steps are being added to ensure that an inadvertent main turbine trip does not occur upon initiation of the loss of both CFPT signal.

- Added the option to the enclosures for CAPT #1 autostart on train A and B blackout signals to allow this response time to be calculated using previously obtained response times.
- Designation for independent verification is changed from IV to DV.
- Steps are added to all sections with specific SSPS requirements to ensure the CR SRO is notified when certain SSPS conditions are no longer required by this procedure. The option to N/A these steps is provided so that performance of this procedure can proceed if they do not apply.

Evaluation:

This retype includes a change in the method used to obtain the CAPT response time on a B/O signal. This response time can now be calculated using previously obtained response times, rather than requiring two additional pump starts. This change is incorporated in a manner to ensure that a conservative response time will be obtained. Also since the CAPT autostart sections of this procedure are performed in Mode 3, this change will result in a required system configuration (i.e., only CAPT inoperable) which is much better for accident mitigation than the previous configuration (i.e., CAPT and one motor-driven pump inoperable). Additionally, the CF isolation on hi-hi S/G level sections have been altered such that they no longer require SSPS in TEST for the train not being tested. Instead, the P-14 Block switches in the CR are utilized to ensure that the resulting actuation comes from the train being tested only. This will require fewer manipulations of SSPS, and subsequently result in a decreased probability of an inadvertent ESF actuation. Also, steps are being added to all sections that generate a loss of both feed pumps signal to ensure that an inadvertent main turbine trip on loss of both CFPTs does not occur. The option being added to allow use of the CAPT B/O response time from the ESF procedure will reduce the number of CAPT starts, thus reducing pump wear and the probability of safety equipment malfunction. Steps are being added to inform the CR SRO when SSPS conditions are no longer required for testing. This will ensure that adequate control of SSPS is maintained in order to prevent inadvertent ESF actuations and possible equipment malfunction.

IP/0/A/3820/04B, Initial Issue

Description:

This procedure provides guidelines for dp testing of MOVs. Implementation of this procedure will assure a high degree of confidence in MOV operability. This procedure is to provide guidance on testing MOVs and obtaining system parameters (upstream pressure, downstream pressure, temperature, and flow rates) during dp testing.

Evaluation:

The evaluation in conjunction with this procedure concluded that no USQ exists. The

only pertinent accident scenarios are loss of inventory accidents and the accident analysis of the FSAR bounds any accidents that could be generated as a result of this procedure. All required temporary tubing, manufacturer's fittings, and pressure gauges must be specified to meet system pressure and temperature requirements. Implementation of this procedure will help prove the operability of safety related MOVs at design basis conditions.

IP/1/A/3710/29B, Initial Issue

Description:

This procedure is the vital I&C reduced voltage test procedure for B train, channel II. This test will determine the system response with various configurations to provide actual test data to confirm that the administrative restrictions imposed by the response to an EDSFI finding are appropriate. Also, this test will provide other useful information that can be used in designing future modifications to this system.

Evaluation:

These tests will be performed in no mode when the fuel is in the spent fuel pool. No actions performed in these tests will affect any activities in the spent fuel storage buildings. There is no impact to any liquid or gaseous radioactive waste systems. The only equipment with the potential to be lost is EMF39 and the VF tornado damper. The safety impact to loss of these two SSCs is insignificant. (Radiation Protection will follow the action statement, TS 3.3.3.11, for EMF39 if it is lost as a result of the test. Also, the test procedures have listed a tornado watch or warning as an abort criterion.) Loss of function of SSCs necessary to mitigate accidents is not possible given the requirements of the tests and limiting failures to those components on the affected panelboards. A KF train will be assured to be available.

PT/0/A/4150/30, Retype #1

Description

Several human factors changes were incorporated to make this procedure easier to understand. Cautions prior to first steps in Section 12.1 and 12.2 were reworded to take action if a Rod Control Urgent failure alarm occurs, or a Rod Control System fuse should blow. Also added steps to verify proper "GRP SELECT" lights are illuminated for the selected banks.

Evaluation

The RCCA movements will be accomplished by a licensed operator using the rod control system in a configuration it was designed for. Catawba has already demonstrated that it can successfully reposition RCCA banks while at power. If a xenon axial oscillation does happen to be included during this procedure for whatever reason, the reactor engineer is familiar with an acceptable control strategy called "bang-

bang" which is used to dampen axial xenon oscillations. There are no unreviewed safety questions associated with this modification.

PT/0/A/4140/22, Retype #1

Description

This procedure change incorporated the use of a switchable load cell setpoints for overload and underload conditions, a new loading pattern which incorporates a perimeter core coupling of detectors, and a required sampling of the ND loop boron concentration every 12 hours if either train of the BDMS becomes inoperable.

Evaluation

The FSAR accident "Inadvertent Loading and Operation of a Fuel Assembly in an Improper Location" is also bounded for this procedure. To prevent this the fuel assembly RRN or insert IDs will be identified as the fuel assemblies are loaded into the core. This procedure change and retype creates no accident scenarios that are not already analyzed. This procedure change and retype does not require off-normal operation of safety equipment. There are no unreviewed safety questions associated with this procedure.

TN/1/A/1221/00/01A, Change #2

Description

This change revises Section 8.0 to ensure all required modification work is complete to support fill and vent and subsequent return to service of the reactor coolant system.

Evaluation

All required modification work will be verified complete to support NC system fill and vent activities during Mode 5. Temporary supports are acceptable to maintain NC system loading requirements during fill and vent activities. The NC system vent piping provided by this modification is located on the reactor vessel head above the vessel flange. Therefore, the failure of the NC system vent piping during fill and vent activities would not result in loss of residual heat removal capabilities by the ND system since the NC loops would remain filled. No new failure modes or operation characteristics are introduced by this procedure. No unreviewed safety questions are judged to be involved or created by this change.

PT/1/B/4150/32

Description

The purpose of this procedure is to develop a pump headcurve for each of the Hotwell and Condensate Booster pumps to be compared with the manufacturer supplied curves,

and to trend pump degradation.

Evaluation

The flow range for this procedure does not violate miniflow or runout flow for either of the pumps. Furthermore, to safeguard against the chances of overflowing the CS system while running the condensate flow in the upper test range, this procedure specifies to decrease the flow rate through 2CM127 if an UST high level alarm is received. Both the test equipment and the system being tested are non safety related. There are no unreviewed safety questions associated with this procedure.

PT/1/A/4250/03F, New Procedure

Description

This procedure was developed to ensure the operational readiness of the CA system flow optimization circuitry.

Evaluation

No new failure modes which could increase the likelihood of any accidents previously evaluated in the FSAR are created as a result of this procedure. The CA system will remain capable of performing its safety function throughout the performance of this test. Since the motor breaker for the pump under test will be racked to TEST, no actual pump starts will be performed. No unreviewed safety question exists for this procedure.

PT/1/A/4400/01, Changes 1-20

Description

This procedure incorporates various changes associated with the ECCS flow balance.

Evaluation

The ECCS flow balance is performed in No Mode with no fuel in the core. With the reactor vessel head removed there is no possibility of over pressurizing the reactor coolant system. No ECCS system is required to perform any safety function during No Mode operations. All ECCS components will be operated in accordance with design limits and general operating procedures. There are no unreviewed safety questions associated with this procedure.

PT/0/A/4400/08B, Retype #1

Description

This procedure change added a step to track the SNSWP surveillance, allows operations flexibility in positioning certain RN valves, deleted the pumphouse balance of the test if

only the auxiliary building components have undergone maintenance and the flow balance is being performed as a retest for work, and various other clarification's.

Evaluation

The RN system is not degraded by this test. The RN pumps are not operated outside design conditions. There are no unreviewed safety questions associated with this change.

PT/1/A/440/11

Description

The purpose of this procedure is to adjust, if necessary, the RN supply flows to the UCVUs, LCVUs, NC Pump Motor coolers, IIVUs, PD Pump Drive Cooler, ABSVUs, FHASU, and ABSRU.

Evaluation

The test does not degrade the RN system in any way. The essential components used are placed in their fail safe position. There are no unreviewed safety questions associated with this procedure change.

AFP-CNS-5.028, REV. 1

AFP-CNS-5.029, Rev. 1

AFP-CNS-5.030, Rev. 2

AFP-CNS-5.031, Rev. 3

Description:

This procedure revisions incorporate various technique, grammatical, and usability upgrades.

Evaluation:

These procedures, which require the same level of review and approval as station procedures, has been meets the requirements of Tech Specs, FSAR and Design Engineering documents ensuring affected components are maintained to "as-built/as-designed" condition. Accordingly, the possibility, probability or consequences of a malfunction will be reduced.

TN/2/B/0148/00/01A, Initial Issue

TN/1/B/0807/00/01A, Initial issue

Description:

These procedures will provide guidance to correct the input to event recorder points 1(2)ER550 for Main Turbine Feedwater Pump 1(2)A, which currently receives input from the pressure switch which initiates an alarm on Low CFPTPA bearing lube oil pressure. A relay will be added to provide input from LF pressure switch which initiates the CFPTPA trip on Low Low lube oil pressure.

Evaluation:

The panels, components and input affected by this procedure are non-safety. The affected control input does not perform a safety function. The CFPTPA A Train pump will be out of service and is not required operable while work is being performed. No fire boundaries will be breached. Wiring installed in this procedure will affect systems and component that are energized. Warnings and notes are included such that systems required for safety are not degraded.

TN/1/B/0807/00/02A, Initial Issue

Description:

This procedure provides guidance to correct the input to event recorder point 1ER551 for Main Turbine Feedwater Pump 1B. Currently, this event recorder point receives input from the pressure switch which initiates an alarm on Low 1CFPTPB bearing lube oil pressure. A relay will be added to provide input from the LF pressure switch which initiates the 1CFPTPB trip on Low Low lube oil pressure.

Evaluation:

The panels, components and input affected by this procedure are non-safety. The affected control input does not perform a safety function. The 1CFPTPB B Train pump will be out of service and is not required operable while work is being performed. No fire boundaries will be breached. Wiring installed in this procedure will affect systems and component that are energized. Warnings and notes are included such that systems required for safety are not degraded.

TN/1/A/1236/00/02A, Initial Issue

Description:

This procedure will provide guidance for the installation of a new electronic pressure transmitter (1VQPT5040) to replace pneumatic transmitters 1VQPT5040, 1VQPS5040, 1VQPS5041, 1VQPS5042, 1VQPS5043, and 1VQPE5040, per NSM CN-11236.

Evaluation:

All physical wiring and device changes being implemented by this procedure are addressed in the Safety Evaluation in the NSM. All work will be performed in the appropriate mode of operation. All appropriate functionals/retests will be performed

following work and prior to operability. A compensatory action form will be in place to provide specific instructions when opening/closing firestops in the annulus and control room floor. All components being affected by electrical isolations have been evaluated and determined to have no effect on the safe operation of Unit 1 in No Mode (no isolation required during Modes 5 or 6).

PT/1/A/4200/13H, Changes 1-9

Description:

These changes incorporate various grammatical, enhanced readability and format changes to improve usability of the procedure. Performance of this test provides assurance that adequate ECCS flows will be delivered to the Reactor Coolant System in the event of a LOCA.

Evaluation:

This procedure is performed during No Mode (no fuel In core). The Reactor head is removed therefore there is no chance for over-pressurizing the Reactor Coolant System. The ECCS system are not required to perform a safety function during No Mode. The ECCS Systems are aligned in configurations similar to that which would be required following an accident condition.

IP/1/B/3042/02, Change #3

Description:

This change replaces transmitter 1LTPT5740 and chart recorder 1LTCR5200 and re-scales instrument loop 1LT5740 for a process range of 0-35 PSIG. Current range is 0-25 PSIG and is too low.

Evaluation:

This loop monitors Main Turbine Bearing Oil Pump Pressure at the bearings. The current model transmitter and chart recorder are obsolete. This loop is non-safety. The new devices will have the same fit, form and function.

MP/0/A/7400/01, Change # 9

Description:

This change adds a new section to the procedure (D/G Fuel Oil Injection Pump Removal, Replacement and Adjustment). The new section provides a method of procedural documentation and guidance for setting/resetting the fixed fuel rack control lever and provides consolidation of inspections and activities under one procedure.

Evaluation:

This addition verifies or restores the fixed control rack lever settings back to their original setting and operating condition. It does not create an unreviewed safety question and has no effect on the identified FSAR sections.

PT/1/A/4350/15A, Changes 0-20

Description:

This retype incorporates previously approved procedure changes which enhance the readability, format, and grammatical errors. The purpose of this test is to verify acceptable D/G performance periodically.

Evaluation:

Only D/G 1A is rendered inoperable by this test. Therefore D/G 1B is still available to supply the B Train 4160 KV essential bus. The D/G will be run in a normal alignment, both paralleled to the grid in an idling condition, by approved operating procedures.

SUMMARY OF NUCLEAR STATION MODIFICATION RELATED 10 CFR 50.59 EVALUATIONS

NSM's CN-20557 and CN-11178

Description

This modification replaced the existing Rochester Instruments System sequence of events recorder (SER) with the Dranetz Model 22 model.

Evaluation

Since the new SER performs the same function as the old SER and no new failure modes are added, there is no increase in the probability nor increase in the consequences of an accident as evaluated in the SAR. Since the SER does not adversely affect equipment important to safety, there is no increase in the probability nor the consequences of a malfunction of equipment important to safety as evaluated in the SAR. Since no new failure modes are added and appropriate reviews have been made for this modification, there is no increased possibility for an accident of a different type than any evaluated in the SAR. Since the SER does not adversely affect equipment important to safety this modification does not create the possibility for a malfunction of a different type than any evaluated in the SAR. Since no plant parameters are altered, the margin of safety as described in the basis to any Technical Specification is not reduced.

CN-20640

Description

This modification allowed the use of the NC vacuum refill process.

Evaluation

The engineering instructions for the NCVRS provide limits and precautions to preclude the loss of ND. Steps also are included to preclude adverse impact on the NCP seals. Under these conditions, no adverse impact on either the ND, NV, or NC systems are associated with this modification. The SGs and CRDMs are not adversely affected. Compliance with criteria associated with either normal operation or Appendix R are not degraded. There is no demand on any power sources in excess of design specification. There are no other affects on any systems used for either power generation, shutdown cooling, fuel handling, or radwaste treatment and storage. Thus, the modification will not increase the probability of an accident evaluated in the SAR. Safe load paths for moving the NCVRS have been specified. The reactor vessel internals are not affected. No failure modes are identified to be associated with the modification. For these reasons and those above, the modification will not create the possibility of an accident

of a different type than any evaluated in the SAR. The NCVRS will not have an adverse impact on any subsystem or component of the ECCS under the conditions specified above. No IE instrument will be degraded by use of the NCVRS under the above conditions. No equipment used for accident mitigation is changed by the modification. Therefore, the modification will not increase either the probability of the consequences of a malfunction of equipment important to safety evaluated in the SAR. Likewise, the modification will not create the possibility of a malfunction of a different type than any evaluated in the SAR. The NC system pressure boundary is not degraded as a result of the modification. NC system components are not adversely affected by the use of the NCVRS. The engineering instructions include steps which will prevent the development of complications of loss of ND. RVLIS will be isolated during NC refill. Neither any fission product barriers nor any source term evaluation is adversely affected. For these reasons and those above, the modification will not increase the consequences of an accident evaluated in the SAR. LTOP limits are not affected by the modification. Instrumentation calibration is not adversely affected by the use of the NCVRS under conditions specified in the engineering instructions. Neither any setpoint, design limit or operating parameter is changed. Thus, the modification will not reduce the margin of safety as defined in the basis for any technical specification. There is no unreviewed safety question associated with this modification.

CN-11062

Description

A relay will be placed in each of the trip coil circuits to breakers 1A-GPCB and 1BGPCB. The purpose of the relays is to provide the means whereby the status of power to the GPCB trip coils circuit can be monitored.

Evaluation

The modification enhances the ability of the operators to monitor the power status of the GPCB trip coil circuits. The actual control elements of these circuits will not be affected. With the exception of the installation of these circuit monitoring devices, no system used for normal operation will be modified. No system, structure or component used to mitigate the plant response to an accident is affected by the modification. The seismic and fire qualification of the transient mitigating systems, structures and components remain unaffected as a result of the modification. Neither any setpoints, operating parameters, nor design limits are changed as a result of the modification. No unreviewed safety question is found to be associated with this modification.

CN-20624

Description

This modification replaced the T600MA1 (600 amp rating) lugs with TA800MA lugs (800 amp rating).

Evaluation

The availability of the MCCs used for the distribution of power to loads required for normal plant operation is not degraded by the modification. The qualification of the MCCs for environmental conditions associated with normal operation is not degraded by the modification. The qualification of the MCCs for seismic and transient environmental conditions is not adversely affected by the modification. The MCCs will remain in compliance with Appendix R criteria. The availability of the EPE MCCs to provide power to accident mitigation equipment is not degraded by the modification. No single failure mode is identified to be associated the modifications. No new failure modes were identified. No setpoint, safety limit or operating is changed as a result of the modification. No unreviewed safety question is associated with the modification.

CN-20581

Description

This modification replaced the manual resetting thermostat switches with ones having automatic reset capability. The new switches will allow the AHU coil heaters to re-energize if the high temperature condition has abated. This will result in more efficient operation of the AHUs and allow for better control of ice condenser temperature.

Evaluation

The modification will not have any impact on any equipment used for normal plant operations. The modification will not have any impact on any equipment used for normal plant operations. The NF AHUs are not used for post accident mitigation. No system important to safety is affected by the modification. The availability of the AHUs to maintain ice bed temperature below the limits assumed in the Safety Analysis is not adversely affected by the modification. No equipment important to safety is affected. No unreviewed safety question is associated with this modification.

CN-20682

Description

The purpose of this modification was to eliminate the single failures which could prevent the flow optimization circuits on the CAMDPs from performing their safety related functions.

Evaluation

Neither any system nor any equipment used for any phase of wither power operations, shutdown cooling, fuel handling, or radwaste treatment is adversely affected by the modifications. Loads on power supplies remain within design specifications. It has been evaluated that the modifications will not decrease the availability of the CA system following an accident. Certain failure modes have been shown to be

eliminated. No new failure modes are created. Compliance with neither applicable seismic, environmental, Appendix R, nor separation criteria is degraded. The impact of these modifications is limited to the effect on the CA system. No other system used for accident mitigation is affected. The consequences of the Feedwater Line Break currently evaluated in the FSAR remains bounded. No other safety analysis is affected. There are no unreviewed safety questions associated with this modification.

CN-20534

Description

This modification installed LVDT's on the main feedwater control and bypass control valves to provide the desired analog indication of full valve stroke.

Evaluation

Neither the feedwater control valves nor the bypass control valves perform a safety function and the LVDT's will be mounted as QA condition 4. This modification does not adversely affect any safety equipment nor does it affect the AMSAC system. Since a 10% weight variance is allowed in the valve seismic calculation, the additions of the LVDT's which amount to about 2% of valve weight are no seismic consequence. The installation of the power and control lines is to be in accordance with Appendix R. These modifications do not adversely affect any safety equipment. This modification does not affect the feedwater control valve nor the feedwater control bypass valves operating mechanism nor operating modes. No parameters or setpoints are altered by this modification. There are no unreviewed safety questions associated with this modification.

CN-20487

Description

This modification added a recirculation loop to each Boric Acid Tank.

Evaluation

The ability of the RMCS's to provide NV makeup and borated water to the NC systems is not degraded by the modification. No new failure modes are identified. The BAT recirculation loops will not be used for accident mitigation. Neither any fission product barrier nor any source term evaluation is adversely affected by the modification. The ability to maintain BAT boric acid concentration within required limits is not adversely affected by the modification. There is no unreviewed safety question associated with this modification.

CN-11262

Description

This modification will replace the diesel engine start timer with an acceptable substitute.

Evaluation

This change will not affect the design conditions or the operating parameters of any system. Electrical loads on the power distribution system serving the EST will remain within design specifications. No accident initiators are affected by the modification. Neither is any fission product barrier or any source term evaluations adversely affected. No system used to mitigate an accident is affected, and there are no changes relative to any other system. Compliance with Appendix R is not degraded. No unidentified electrical circuits are generated as a result of this modification. No new failure modes are generated. This modification will not affect any safety limits, setpoints, or operating parameters. No unreviewed safety questions are associated with this modification.

CN-11230

Description

The purpose of this modification is to provide/designate a lifting device at each valve location capable of removing the actuator and/or the entire valve on 1VP2A, 4A, 9A, and 12A.

Evaluation

The lifting devices including cranes, monorails, lifting lugs and platforms involved in this modification have been reviewed for loading capabilities and found adequate. All devices have been seismically designed. Pathways of equipment movement have been reviewed to preclude potential damage to safety related equipment and piping. There is no unreviewed safety question associated with this modification.

CN-50420

Description

This modification replaces the level switches with a mercury switch in a hermetically sealed float in the yard drain system. This modification also installs sump baffles to encourage settling of silt and debris before it reaches the pump suction.

Evaluation

The modification affects an existing non-safety system. No accident initiators are affected. It does not affect any chapter 15 analysis. The SYCS has no safety related function and will not affect the consequences of an analyzed accident. No fission product barriers or source term evaluations are affected by this modification. The SYCS is not an accident initiator. No setpoints, design limits, or operating parameters

important to safety are affected by this modification. There are no unreviewed safety questions associated with this modification.

CN-20643

Description

This modification replaced valves 2CF166, 167, 168, and 169 with a tilting disk check design.

Evaluation

The new valves will be Duke class B, the same as before. The valves are adequate for the system design parameters. The new valves have been evaluated with respect to feedwater flow requirements and found adequate. The valve design for this application is improved and the system operation is essentially as designed. No safety parameters or design limits have been adversely affected, and no margin of safety as defined in the bases to any technical specification is reduced. There are no unreviewed safety questions associated with this modification.

CN-11247

Description

This modification will replace the Airpax overspeed monitor for the Auxiliary Feedwater turbine driven pump (CAPT).

Evaluation

These changes will not affect the design conditions or the operating parameters. No accident initiators are affected by the modification. Neither is a fission product barrier or any source term evaluations adversely affected. No system used to mitigate an accident is affected other than the CA system and there are no functional changes relative to the CA system. Compliance with seismic criteria is not degraded. This modification will not affect any safety limits, set points, or operating parameters. There is no unreviewed safety question associated with this modification.

CN-20565

Description

This modification realigned power to the Train A ENC neutron flux monitors to a more reliable 1E power source.

Evaluation

The modification to the 600 MCC's EMXS will not result in a degradation of the classification, nor will it result in a decrease in their reliability. No "hidden circuits"

were identified in a design evaluation of this modification. No new failure modes were identified in this evaluation. The seismic and Appendix R qualifications remain unchanged as a result of this modification. No fission product barrier is affected by this modification. No setpoint, design limit, or operating parameter is changed as a result of the modification. There is no unreviewed safety question associated with this modification.

CN-20597

Description

This modification will replace the steam generator blowdown outside containment isolation valves.

Evaluation

The valves and operators selected as replacements meet the flow characteristics, closure times, design limits and material class necessary to comply with technical specifications and system design basis. The EMO will be sized for 80% normal voltage and torque switch settings will reflect Generic Letter 89-10 and will be seismically secure. No accident initiators are affected. No fission product barriers or source term evaluations are affected by this modification. There are no unreviewed safety questions associated with this modification.

CN-20544

Description

This modification installed the Digital Feedwater Control System (DFCS). The new control system will be housed in the existing cabinets and seismic concerns for the cabinets and the main control board have been adequately addressed. All penetrations through QA condition or other sealed walls will be given appropriate fire, seismic and sealing requirements. Although the new mode of operating the control and bypass valves can lead to an accident flow rate to a faulted steam generator in excess of the value stated in the FSAR, a review by Westinghouse shows this increased flow to be acceptable. No failure mechanisms have been identified which would adversely affect safety. The systems purpose and the manner of implementing this purpose remain unchanged as a result of this modification and all failures of this system lead to conditions as analyzed specifically or in the FSAR. No plant parameters or setpoints are altered by this modification, the margin of safety as defined in the bases to any technical specification is not reduced. There are no unresolved safety questions associated with this modification.

CN-10908

Description

This modification will remove the float type level instrumentation from the Diesel Generator Engine Cooling Water System (KD) standpipe and install new level instrumentation.

Evaluation

An Appendix R and seismic review was conducted for this modification. The KD standpipe as well as other components that serve to mitigate the consequences of accidents are not adversely affected by this modification. No new failure modes for equipment important to safety have been identified. No setpoints, operating parameters of safety limits are adversely affected. There are no unreviewed safety questions associated with this modification.

CN-11246

Description

This modification replaced the seal injection lines which extend from the inlet and outlet connections on ND pump seal water heat exchangers with flex hose.

Evaluation

The flex hose is designed consistent with ND system design parameters. Stress analysis and seismic design have been evaluated. The new components are compatible with respect to material with the current components and are resistant to corrosion. There will be no degradation in heat transfer characteristics of the ND Mechanical Seal Heat Exchanger. No new failure modes were identified in this evaluation. No setpoint, design limit, or operating parameter is affected by this modification. There is no unreviewed safety question associated with this modification.

CN-11232

Description

This modification modified the existing Diesel Generator Engine Starting Air System such that a single air compressor can be used to supply air to both starting air tanks.

Evaluation

The Diesel Generator Engine Starting Air System is not an initiator of any SAR accident. Pressure boundary integrity where required is not degraded. Operation of the VG system will be enhanced and not adversely affected, and no failure modes have been identified other than those listed in FSAR Table 9-41. The VG system will basically operate and function as before with no new failure modes identified. No safety parameters or design limits have been adversely affected. There are no unreviewed safety questions associated with this modification.

CN-11154

Description

This modification installed new butterfly isolation valves on the hot RN discharge of each KC heat exchanger.

Evaluation

The new manual isolation valves and the new drains with manual drain isolation valves are for maintenance use only. Material compatibility is preserved. Compliance with design and material specifications is not degraded. The valves will not inhibit design flows for the RN system during any mode that particular train is in operation. No new failure modes were identified and the RN and KC systems will function as before in all modes. No safety parameters or design limits have been adversely affected. There are no unreviewed safety questions associated with this modification.

CN-11054

Description

This modification will change the power supply to the hydraulic pressure switches on main feedwater isolation valve actuators (1CF33, 42, 51, and 60) from safety to non-safety.

Evaluation

The hydraulic pressure switch, whose power supply is being changed from safety to non-safety, serves to start and stop the non-safety hydraulic pump motor, and therefore, performs no safety function. An appendix R review was done for the cable routing done under this modification. Since the valves being modified will continue to function as they did prior to the modification and no piece of equipment important to safety is adversely affected by this modification. No setpoints, operating parameters or safety limits are affected by this modification. There are no unreviewed safety questions associated with this modification.

CN-10632

Description

This modification will reroute the ice condenser floor cooling supply line.

Evaluation

The function of the ice condenser to store ice to be used during accident condition or the function of the floor cooling system to aid in the storage of is not changed. These modifications will have no impact on the consequences of accidents since the equipment being modified does not serve to mitigate directly the consequences of any accident.

since the ice condenser ability to function is not adversely affected. No setpoints or safety limits are affected by these modification. There are no unreviewed safety questions associated with this modification.

CN-20623

Description

This modification installed three backup filters, one per dryer, on the RP clothes dryers.

Evaluation

No accident initiator is affected by this modification. Neither any fission product barrier nor any source term evaluation is affected by the modification. No setpoint, design limit, or operating parameter is affected by the modification. No unreviewed safety question is associated with this modification.

CN-11184

Description

This modification realigned power to the Train A ENC neutron flux monitors to a more reliable 1E power source.

Evaluation

The modification to the 600 MCC's EMXS will not result in a degradation of the classification, nor will it result in a decrease in their reliability. No "hidden circuits" were identified in a design evaluation of this modification. No new failure modes were identified in this evaluation. The seismic and Appendix R qualifications remain unchanged as a result of this modification. No fission product barrier is affected by this modification. No setpoint, design limit, or operating parameter is changed as a result of the modification. There is no unreviewed safety question associated with this modification.

CN-11287

Description

The purpose of this modification was to eliminate the single failures which could prevent the flow optimization circuits on the CAMDPs from performing their safety related functions.

Evaluation

Neither any system nor any equipment used for any phase of wither power operations, shutdown cooling, fuel handling, or radwaste treatment is adversely affected by the

modifications. Loads on power supplies remain within design specifications. It has been evaluated that the modifications will not decrease the availability of the CA system following an accident. Certain failure modes have been shown to be eliminated. No new failure modes are created. Compliance with neither applicable seismic, environmental, Appendix R, nor separation criteria is degraded. The impact of these modifications is limited to the effect on the CA system. No other system used for accident mitigation is affected. The consequences of the Feedwater Line Break currently evaluated in the FSAR remains bounded. No other safety analysis is affected. There are no unreviewed safety questions associated with this modification.

CN-10706

Description

The purpose of this modification is to install relief valves on the CA pump suction lines in order to prevent over pressurization as a result of hot high pressure feedwater/steam back leakage through the pump discharge check valves.

Evaluation

Operation or failure of these valves will not initiate an accident discussed in the SAR. The potential small flow loss through a stuck open relief valve will not prevent the CA system from performing its safety function. Compliance with design specification, seismic qualifications, and environmental qualifications is not degraded as a result of the modification. The availability of the CA system is not decreased as a result of the modification. No safety parameters or design limits have been adversely affected. There are no unreviewed safety questions associated with this modification.

CN-11194

Description

This modification deleted the use of D. G. O'Brien penetration feedthroughs and add the Conax penetration feedthroughs for the signal cables serving the containment high range radiation monitors 1EMF53A and 53B.

Evaluation

No design conditions or operating parameters will be affected. No accident initiators are affected by the modification. Neither is a fission product barrier or any source term evaluations adversely affected. No system used to mitigate an accident is affected and there are no changes relative to any other system. Compliance with seismic criteria is not degraded. No new failure modes were identified. This modification does not affect any safety limit, set point or operating parameter. There are no unreviewed safety questions associated with this modification.

CN-10807

Description

This modification will correct the input to event recorder points (1,2)ER550 and (1,2)ER551.

Evaluation

The actual circuits designed to trip the CFPT on low low CF pump or CFPT bearing lube oil pressure are not adversely affected. No CFPT controls are affected by the modification. No sneak circuits were identified, and load demands on the IWE power supplies remain within limits. The circuits being modified are not used in accident mitigation. There is no impact either on seismic qualification or on compliance with appendix R or separation criteria. No setpoint, design limit, or operating parameters changed. There are no unreviewed safety questions with this modification.

CN-11231

Description

This modification modified the existing Diesel Generator Engine Starting Air System such that a single air compressor can be used to supply air to both starting air tanks.

Evaluation

The Diesel Generator Engine Starting Air System is not an initiator of any SAR accident. Pressure boundary integrity where required is not degraded. Operation of the VG system will be enhanced and not adversely affected, and no failure modes have been identified other than those listed in FSAR Table 9-41. The VG system will basically operate and function as before with no new failure modes identified. No safety parameters or design limits have been adversely affected. There are no unreviewed safety questions associated with this modification.

CN-50308

Description

This modification provided additional security barriers for certain areas at the protected area boundary and vital area boundaries.

Evaluation

All new barriers are seismically qualified. The barriers installed in drainage systems will have no significant effect on the systems' drainage. The barriers that are to be installed in HVAC ductwork have been reviewed for air restriction due to the barrier addition and were found to not be a problem. No new failure modes are postulated. There are no unreviewed safety questions associated with this modification.

CN-11006

Description

The purpose of this modification is to eliminate these single failure modes and to improve the reliability of the hydraulic isolator alarm input on RVLIS status.

Evaluation

RVLIS is not used for any phase of either power generation, shutdown cooling, fuel handling, or radwaste treatment. Compliance with Appendix R and separation criteria is not compromised. The ability of RVLIS to perform its functions is not adversely affected by the modification. Neither any fission product barrier nor any source term evaluation is degraded. Neither any setpoint, operating parameter, nor any design limit is affected by the modification. There are no unreviewed safety questions associated with this modification.

CN-20675

Description

Valve 2BB13 had a pressure seal packing leak. This modification supplied the necessary information to leak repair the valve on line.

Evaluation

Valve 2BB13 performs no safety function. Its purpose is to isolate for maintenance. The weight of the sealant and fitting was judged to be insignificant with respect to piping analysis and seismic concerns. Design pressure and temperature of the valve are not affected. The sealant is compatible with valve materials, BB system fluids and the containment environment. No setpoint, safety limit, or operating parameter is changed as a result of the leak repair. There are no unreviewed safety questions associated with this modification.

CN-20682

Description

The purpose of this modification was to eliminate the single failures which could prevent the flow optimization circuits on the CAMDPs from performing their safety related functions.

Evaluation

Neither any system nor any equipment used for any phase of either power operations, shutdown cooling, fuel handling, or radwaste treatment is adversely affected by the modifications. Loads on power supplies remain within design specifications. It has

been evaluated that the modifications will not decrease the availability of the CA system following an accident. Certain failure modes have been shown to be eliminated. No new failure modes are created. Compliance with neither applicable seismic, environmental, Appendix R, nor separation criteria is degraded. The impact of these modifications is limited to the effect on the CA system. No other system used for accident mitigation is affected. The consequences of the Feedwater Line Break currently evaluated in the FSAR remains bounded. No other safety analysis is affected. There are no unreviewed safety questions associated with this modification.

CN-20541

Description

The purpose of this modification is to replace the existing EHC system with a digital turbine control system which uses state of the art technology.

Evaluation

The turbine trip functions listed in the FSAR are preserved, and the anticipated frequency of a turbine trip is not increased. The reliability of the new EHC system is at least the same as that of the current EHC. The EHC components are qualified for operation in their environment. No new failures are identified which would reduce the level of redundancy of the turbine overspeed protection features or result in a turbine trip. The safety analysis of turbine overspeed and turbine trip are unaffected by the modification and remain bounding. The setpoints, design limits, and operating parameters associated with current turbine overspeed protection and turbine trip functions are not changed. No unreviewed safety question exists as a result of this modification.

CN-11300

Description

This modification restored the structural integrity of the NS heat exchangers by reinforcing the baffle/support plates.

Evaluation

These changes will not adversely affect the design conditions (i.e. temperature, pressure, heat transfer, or flow rates). The ability of the NS and RN systems to function as designed are not affected by this modification. No accident initiators are affected, and neither is a fission product barrier or any source term evaluations adversely affected. Compliance with seismic criteria is not degraded. Compliance with appendix R criteria is not affected or degraded. This modification will not affect any safety limits, set points, or operating parameters. No unreviewed safety questions are associated with this modification.

CN-20525

Description

This modification provided a new source of cooling water for the Auxiliary Shutdown Panel Supply Units (ASPSU).

Evaluation

No accident initiators are affected by this modification. Neither the KC or RN system is degraded. The KC, RN, CA systems and the Auxiliary Shutdown Panel will function as before. No safety parameters, setpoints, or design limits have been adversely affected. There are no unreviewed safety questions associated with this modification.

CN-20666

Description

This modification provided a 2.7 inch diameter penetration in the Steam Generator 2C secondary side shell and provided bolted closure.

Evaluation

The closure meets all ASME Section III code requirements and will be consistent with the design parameters associated with the Steam Generator. The previously analyzed steam line break accident bounds any potential failure of the shell closure assembly. Neither any fission product barrier nor any source term evaluation is adversely affected. No safety limit, setpoint, or operating parameter will be changed by this modification. There are no unreviewed safety questions associated with this modification.

CN-20196

Description

This modification provides a permanent nitrogen supply line to locations in both unit 2 doghouses.

Evaluation

The nitrogen system added by this modifications not permanently connected to the CF valves accumulators. The operation of the CF valves is unaffected by the nitrogen system normally, or is the system has a failure. The piping and accumulators are designed to handle the available pressure, and the equipment cannot cause damage to any system during an seismic event. No safety/design limits are adversely affected. There are no unreviewed safety questions associated with this modification.

CN-20611

Description

This modification replaced the existing PALS with a system similar to that at Oconee Nuclear Station.

Evaluation

The modification replaces an existing non-safety system with another non-safety system which is used for post-accident monitoring. No accident initiators are affected. It does not affect any chapter 15 analyses. The PALS has no safety related function and will not affect the consequences of an analyzed accident. No setpoints, design limits or operating parameters are affected by this modification. There are no unreviewed safety questions associated with this modification.

CN-20504

Description

This modification will replace the existing stuffingbox on the RN pump.

Evaluation

The stuffingbox, pipe and valves have been evaluated for both stress and seismic concerns. The existing stuffingbox will perform all the functions of the old stuffingbox. Neither the RN pump or any other piece of equipment is degraded by the installation of this modification. No new failure modes have been introduced. No safety not adversely affected by the use of the NCVRS. The engineering instructions include steps which will prevent the development of complications of loss of ND. RVLIS will be isolated during NC refill. Neither any fission product barriers nor any source term evaluation is adversely affected. For these reasons and those above, the modification will not increase the consequences of an accident evaluated in the SAR. LTOP limits are not affected by the modification. Instrumentation calibration is not adversely affected. The PALS has no safety related function and will not affect the consequences of an analyzed accident. No setpoints, design limits or operating parameters are affected by this modification. There are no unreviewed safety questions associated with this modification.

CN-20103

Description

This modification will upgrade the existing recirculation filtering system that services the diesel generator engine fuel oil storage tanks.

Evaluation

The new system will function more efficiently and provide cleaner oil to the diesel generator engine. This system is not an FSAR accident initiator. The system will operate as before. No safety parameters or design limits have been adversely affected. There are no unreviewed safety questions associated with this modification.

CN-50427

Description

This modification replaced valves 1(2)RN67A, 69B, 47A, and 48B with high performance butterfly valves of high durability and superior corrosion resistance.

Evaluation

The Duke classification and design limits for these valves are not affected. Material compatibility is not degraded. The new valves C_v 's are the same as the replaced valves C_v 's. Stress analysis and hanger/support review are complete. Appendix R and train separation requirements have been considered. No new failure modes are identified. There are no unreviewed safety questions associated with this modification.

CN-20313

Description

The purpose of this modification is to provide the Boric Acid Tanks (BAT) with a means of automatic venting.

Evaluation

This modification improved the availability of the BAT by providing automatic venting and over pressure relief. The BAT is not an accident initiator. Off gases will be handled by the Auxiliary Building filtered exhaust system, and overflows can be handled by floor drains, and level instrumentation is unaffected. The BAT will function essentially as before. No new failure modes have been identified. No safety limits or design parameters have been adversely affected. There are no unreviewed safety questions associated with this modification.

CN-11242

Description

This modification includes control circuit wiring and documentation changes necessary for compliance with Generic Letter 89-10.

Evaluation

Valve operator speed and capacity are unaffected. Open and closure times do not change. Any signal which result in valve motion are unaffected. No fission product

barriers or source term evaluations are affected. No new failure modes or equipment important to safety are introduced. There are no unreviewed safety questions associated with this modification.

CN-10911

Description

This modification moved the pneumatic module (PM) and the remote control unit (RCU) of the air lock ILRT test equipment to a location in the auxiliary building.

Evaluation

The function of the PAL ILRT system will not be adversely affected by this modification. The PM and RCU mountings are seismically qualified. No new failure modes were identified. The controls to the RN, KC, NW, and ENC systems have been shown not to be adversely affected by this modification. No unreviewed safety question is associated with this modification.

CN-20605

Description

This modification corrected deficiencies and increased availability and ease of maintenance of the Atmospheric Dump Valves (ADV).

Evaluation

The probability of an inadvertent opening of the ADV is not increased. The ability of the ADV to discharge steam is not significantly degraded. No new failure modes were found. The ADV are not used for accident mitigation. The consequences of a valve inadvertently opening remain bounded by the analysis of an increase in secondary steam flow in the FSAR. No setpoint, design parameter, or operating limit is affected by this modification. There are no unreviewed safety questions associated with this modification.

CN-11272

Description

This modification provided limit actuated torque switch bypass contacts which are adjustable for span travel for certain valves.

Evaluation

The torque switch bypass contacts are being adjusted to a travel span that will make the valves more reliable. The valves are in the NI, RN, and WL systems. Neither the contacts or the systems are accident initiators. These valves will continue to function

as before, only more reliably. No new failure modes are created. No safety limits, setpoints, or assumptions made in any accident analysis are affected. There are no unreviewed safety questions associated with this modification.

CN-20573

Description

This modification installed ultrasonic level instrumentation on the Reactor Coolant system piping on both the B and C hot legs.

Evaluation

The instrumentation added under this modification is not related to nuclear safety. Seismic and stress evaluations have been performed for this modification. An appendix R review has been completed. Material compatibility has been considered. No setpoints or safety limits are affected by this modification. There are no unreviewed safety questions associated with this modification.

CN-20500

Description

This modification added seal-in circuitry to the CAPT overspeed trip lights on the main control room and the SSF.

Evaluation

The electronic overspeed trip indication lights are not the initiators of any accident. The circuitry initiating the trip will not be affected. No accident mitigating equipment will be adversely affected. No assumptions or initial conditions used in any accident or equipment malfunction analyses will be altered. No new failure modes were created. No operating parameters, safety limits, or setpoints were changed. There are no unreviewed safety questions associated with this modification.

CN-10843

Description

This modification provides a permanent nitrogen supply line to locations in both unit 1 doghouses.

Evaluation

The nitrogen system added by this modifications not permanently connected to the CF valves accumulators. The operation of the CF valves is unaffected by the nitrogen system normally, or is the system has a failure. The piping and accumulators are designed to handle the available pressure, and the equipment cannot cause damage to

any system during an seismic event. No safety/design limits are adversely affected. There are no unreviewed safety questions associated with this modification.

CN-50421

Description

This modification added connections to the Catawba WAN/LAN administrative loop. The connections will be made specifically to Auxiliary Services Panel 0AP005 and 0AP006.

Evaluation

No equipment used for any phase of either power generation, shutdown cooling, fuel handling, or radwaste treatment is adversely affected by this modification. Compliance with neither appendix R nor seismic criteria is degraded. Loads on power supplies remain within design specifications. No sneak circuits are created as a result of the modification. No equipment used in accident mitigation is affected by the modification. Neither any fission product barrier nor any source term evaluation is affected by the modification. There are no unreviewed safety questions associated with the modification.

CN-11124

Description

This modification deletes all instrumentation and pneumatic controls from RC3 and RC4. The existing manual pneumatic operator/manual override assemble is replaced with a manual gearbox.

Evaluation

Neither the configuration nor the design parameters of the system will change. A seismic review was performed. The availability of the feedwater pump turbine will not be reduced. No safety related system or component is affected by the modification. No safety parameters or design limits have been adversely affected. There are no unreviewed safety questions associated with this modification.

CN-50390

Description

This modification added the components of the LAN administrative loop and branch lines including a fiber optics backbone cable, branch cables, and auxiliary service panels.

Evaluation

The administrative loop and branch cables has no interface with any system used for

accident mitigation. The seismic qualification of any structure is not affected. No equipment used for any phase of either power generation, shutdown cooling, fuel handling, or radwaste treatment is adversely affected. No sneak circuits are created as a result of this modification. Neither any fission product barrier nor any source term evaluation is affected by the modification. Neither any setpoint design limit, or operating parameter is affected. There are no unreviewed safety questions associated with this modification.

CN-11170

Description

This modification replaced the load sensing systems on the spent fuel pool manipulator and reactor building manipulator crane.

Evaluation

The cranes which are being modified are non safety related. Operation of the cranes will be the same as in the past and no new failure modes have been identified with the new load sensing system. The equipment does not serve to mitigate the consequences of an accident. No system including the fuel handling system is adversely affected. No new failure modes have been identified that are associated with the implementation of these modifications. No setpoints, operating parameters, or safety limits are affected by this modification. There are no unreviewed safety questions associated with this modification.

CN-11149

Description

This modification to the IE diesel generator system control circuitry converted the non-emergency pneumatic engine shutdown controls to electrical logic.

Evaluation

A seismic review has been performed and found acceptable. The new trip mechanisms will function in a similar manner to the pneumatic mechanisms that are being replaced. The control strategy being employed is the same as previously utilized and leads to the same failure modes that existed previously. No setpoints, safety limits or design parameters have been changed. There are no unreviewed safety questions associated with this modification.

CN-20569

Description

This modification upgrades the ICCM-86 software.

Evaluation

The ICCMs perform no function during normal plant operation. The interfaces they have with equipment used during normal plant operations will not be affected by this modification. The ICCM functions are unchanged as a result of this modification. No credible failure modes were identified during the evaluation. No setpoints, design limits, or operating parameters are changed as a result of this modification. There are no unreviewed safety questions associated with this modification.

CN-11287

Description

The purpose of this modification was to eliminate the single failures which could prevent the flow optimization circuits on the CAMDPs from performing their safety related functions.

Evaluation

Neither any system nor any equipment used for any phase of wither power operations, shutdown cooling, fuel handling, or radwaste treatment is adversely affected by the modifications. Loads on power supplies remain within design specifications. It has been evaluated that the modifications will not decrease the availability of the CA system following an accident. Certain failure modes have been shown to be eliminated. No new failure modes are created. Compliance with neither applicable seismic, environmental, Appendix R, nor separation criteria is degraded. The impact of these modifications is limited to the effect on the CA system. No other system used foe accident mitigation is affected. The consequences of the Feedwater Line Break currently evaluated in the FSAR remains bounded. No other safety analysis is affected. There are no unreviewed safety questions associated with this modification.

CN-20546

Description

This modification revised the existing supports on Feedwater system piping.

Evaluation

The supports which are being modified are non safety related. The function of the feedwater system is not altered by these revisions to the supports. The equipment being modified does not serve to mitigate the consequences of an accident. No new failure modes have been identified that are associated with the implementation of this modification. No setpoints, operating parameters or safety limits are affected by this modification. There are no unreviewed safety questions associated with this modification.

CN-20613

Description

This modification modified the existing Diesel Generator Engine Starting Air System such that a single air compressor can be used to supply air to both starting air tanks.

Evaluation

The Diesel Generator Engine Starting Air System is not an initiator of any SAR accident. Pressure boundary integrity where required is not degraded. Operation of the VG system will be enhanced and not adversely affected, and no failure modes have been identified other than those listed in FSAR Table 9-41. The VG system will basically operate and function as before with no new failure modes identified. No safety parameters or design limits have been adversely affected. There are no unreviewed safety questions associated with this modification.

CN-20614

Description

This modification modified the existing Diesel Generator Engine Starting Air System such that a single air compressor can be used to supply air to both starting air tanks.

Evaluation

The Diesel Generator Engine Starting Air System is not an initiator of any SAR accident. Pressure boundary integrity where required is not degraded. Operation of the VG system will be enhanced and not adversely affected, and no failure modes have been identified other than those listed in FSAR Table 9-41. The VG system will basically operate and function as before with no new failure modes identified. No safety parameters or design limits have been adversely affected. There are no unreviewed safety questions associated with this modification.

CN-11197

Description

This modification replaced the manual resetting thermostat switches with ones having automatic reset capability. The new switches will allow the AHU coil heaters to re-energize if the high temperature condition has abated. This will result in more efficient operation of the AHUs and allow for better control of ice condenser temperature.

Evaluation

The modification will not have any impact on any equipment used for normal plant operations. The modification will not have any impact on any equipment used for normal plant operations. The NF AHUs are not used for post accident mitigation. No

system important to safety is affected by the modification. The availability of the AHUs to maintain ice bed temperature below the limits assumed in the Safety Analysis is not adversely affected by the modification. No equipment important to safety is affected. No unreviewed safety question is associated with this modification.

CN-20564

Description

This modification performed HED related improvements on the main control boards, auxiliary shutdown panels and the auxiliary feedwater pump turbine control panel.

Evaluation

The changes performed under this modification are cosmetic in nature and do not affect the performance of any system. These modifications have no adverse impact on the seismic qualification of the affected main control boards. No control circuits will be changed as a result of these modifications. No system or piece of equipment that acts as an event initiator is modified under this modification. The ability of mitigating equipment to function during an accident is unaffected by this modification. No setpoints, safety limits, or operating parameters are affected by this modification. There are no unreviewed safety questions associated with this modification.

CN-20642

Description

This modification includes control circuit wiring and documentation changes necessary for compliance with Generic Letter 89-10.

Evaluation

Valve operator speed and capacity are unaffected. Open and closure times do not change. Any signal which result in valve motion are unaffected. No fission product barriers or source term evaluations are affected. No new failure modes or equipment important to safety are introduced. There are no unreviewed safety questions associated with this modification.

CN-20673

Description

This modification replaced valve 2NC31B, a 3" Rockwell-Edward equi-wedge gate valve, with a 3" Anchor Darling double-disc gate valve.

Evaluation

The ability of the valve to perform its design basis functions has not been altered. The

valve is capable of operating as required for all normal and accident fluid conditions and meets the requirements of NUREG 0737, Item II.D.1.B and Generic Letter 89-10. The valve will still close in under 10 seconds. The valve materials are compatible with system parameters including borated water and containment LOCA atmosphere. Seismic considerations have been evaluated. No setpoint, design limit, or operating parameter is affected by this modification.

CN-20621

Description

This modification removed and replaced the pneumatic instrumentation loop 2VQPT5040 with an electronic instrumentation loop.

Evaluation

The VQ system is not an accident initiator. The modification will not degrade the availability of the VQ system to maintain containment pressure within the limits of technical specifications. No interface with any plant system used for any phase of normal plant operations will be adversely affected. The ability of the safety related NS pressure transmitters affected by the modification to perform their accident mitigation function will not be degraded by this modification. The environmental and seismic qualifications of the NS transmitters will not be degraded by this modification. Neither any fission product barrier or source term evaluation is affected by this modification. No setpoint, design limit, or operating limit will be affected. There are no unreviewed safety questions associated with this modification.

CN-10861

Description

This modification added the logic for initiating a partial unit runback to the unit 1 ITE system.

Evaluation

This modification increased the reliability of the EBA and EPA systems. No sneak circuits are created. No equipment use for accident mitigation is affected by the modification. Compliance with Appendix R is not degraded. Neither any fission product barrier nor any source term evaluation is degraded. Neither any setpoint, design limit, nor any operating parameter is affected. There is no unreviewed safety question associated with this modification.

CN-11236

Description

This modification removed and replaced the pneumatic instrumentation loop 1VQPT5040 with an electronic instrumentation loop.

Evaluation

The VQ system is not an accident initiator. The modification will not degrade the availability of the VQ system to maintain containment pressure within the limits of technical specifications. No interface with any plant system used for any phase of normal plant operations will be adversely affected. The ability of the safety related NS pressure transmitters affected by the modification to perform their accident mitigation function will not be degraded by this modification. The environmental and seismic qualifications of the NS transmitters will not be degraded by this modification. Neither any fission product barrier or source term evaluation is affected by this modification. No setpoint, design limit, or operating limit will be affected. There are no unreviewed safety questions associated with this modification.

CN-11179

Description

This modification installed a linear kinetic cell, a manually controlled throttle valve and flow metering in each sample line in the NM system.

Evaluation

The flow valves and instrumentation will be installed in accordance with applicable QA standards. No new failure modes are introduced by this modification and the system will function as before. No setpoints, safety limits, or design parameters are changed. There are no unreviewed safety questions associated with this modification.

CN-20575

Description

This modification will replace carbon steel pipe with stainless steel in order to alleviate fouling and corrosion problems around RN radiation monitors EMF45A and 45B.

Evaluation

This modification does not affect any initiators of evaluated accidents. The part of the RN system being changed will function essentially as before. The environmental, seismic, and appendix R qualifications of these parts remain unchanged. No setpoints, safety parameters, or design limits have been adversely. There are no unreviewed safety questions associated with this modification.

CN-20640

Description

This modification provided a reactor coolant system vacuum refill system (NCVRS) and interfacing equipment.

Evaluation

The engineering instructions for the NCVRS provide limits and precautions to preclude the loss of ND. Under these conditions, no adverse impact on either the ND, NV, or NC systems are associated with this modification. Compliance with either normal operation or appendix R is not degraded. No failure modes are identified to be associated with the modification. No equipment used for accident mitigation is changed by the modification. The NC system pressure boundary is not degraded by this modification. Neither any setpoint, design limit, or operating parameter is changed. There are no unreviewed safety questions associated with this modification.

CN-20659

Description

This modification will relocate the two pressure relief valves placing them closer to the fuel oil supply day tank on the 2A and 2B diesel generator engine fuel oil supply header and recirculation header.

Evaluation

This modification will not affect the design conditions or the operating parameters. No accident initiators are affected by the modification. Neither is a fission product barrier or any source term evaluation adversely affected. No system used to mitigate an accident is affected. Compliance with seismic criteria is not degraded. No new failure modes are generated. No safety limit, setpoint or operating parameter is affected. No unreviewed safety question is associated with this modification.

CN-11257

Description

This modification replaced valves 1RN144A, 148A, 225B, 229B, 287A and 347B with a high performance stainless steel butterfly valves with improved durability and superior resistance to abrasive raw water corrosion.

Evaluation

The valves will function identically as before. Stress analysis and seismic reviews are complete. No new failure modes were identified. No setpoints, operating parameters, or safety limits are affected by this modification. There are no unreviewed safety questions associated with this modification.

SUMMARY OF EXEMPT CHANGE RELATED 10 CFR 50.59 EVALUATIONS

CE-3593

Description:

This exempt change increases the delay time for the 232DGT relay by 2 seconds in order to reduce spurious trips of the diesel generator during testing.

Evaluation:

The 232DGT relay is safety related. The relay can only trip the generator breaker during testing, therefore the probability of an accident previously evaluated in the FSAR will not be increased. The possibility of an accident which is different than any already evaluated in the FSAR will not be created because the control circuit for generator operation will not be modified. It has been determined that the increase of 2 seconds in the time delay will not adversely affect the generator. The consequences of an accident previously evaluated in the FSAR will not be increased. The probability or consequences of a malfunction of equipment important to safety previously evaluated in the FSAR will not be increased. The possibility of malfunctions of equipment important to safety different than any already evaluated in the FSAR will not be created.

CE-3701

Description:

This exempt change updated incorrectly labeled fire protection drawings by showing the correct QA Condition 3 boundary on flow diagrams, isometrics, and fire protection layout drawings.

Evaluation:

The technical justification for showing the correct QA Condition boundaries on the fire protection drawings covered under this exempt change is given in Design Study CNDS-0161. The basis for determining the proper QA Condition 3 boundaries is section 9.5.1 of the CNS FSAR and the Selected Licensee Commitment Manual Section 16.9. This change will maintain the correct QA Condition 3 boundaries to ensure adequate fire protection for systems and components important to plant safety. There are no unreviewed safety questions associated with this change.

CE-3700

Description:

This exempt change updated incorrectly labeled fire protection drawings by removing the QA Condition 3 label.

Evaluation:

The technical justification for removing the QA Condition 3 label from the fire protection drawings covered under this exempt change is given in Design Study CNDS-0161. The basis for determining the proper QA Condition 3 boundaries is Section 9.5.1 of the CNS FSAR and Selected Licensee Commitment Section 16.9. This change will maintain the correct QA Condition 3 boundaries to ensure adequate fire protection for systems and components important to plant safety. There are no unreviewed safety questions associated with this change.

CE-3599

Description:

This exempt change will change the washer associated with the "J-bolt" detail for the cruciform suspension to non-QA. Also, a detail for the "J-bolt" will be added to the ice basket drawings. Lastly, this change will downgrade the wire mesh at the bottom of the ice baskets to non-QA and add an allowance to cut maintenance access openings in the wire mesh.

Evaluation:

The configuration of the J-bolt assembly is such that the washer is loaded during maintenance activities or during blow-down immediately after a high energy line break. During maintenance loading or blow-down loading, the nut on the J-bolt assembly is the load bearing member. Therefore, as long as the nut is intact, the J-bolt assembly will perform its intended function. The top plate assembly is the load bearing item which supports the ice basket, thus supporting the ice and maintaining the ice geometry. Therefore, downgrading the washer to non-QA will not affect the function of the ice baskets. The addition of the J-bolt detail to the ice basket drawings is an editorial change only. The wire mesh at the bottom of the ice baskets is used to support the "blown in" ice chips during maintenance. Once the ice has settled and solidified, the 10 gauge grid strips provide the structural support for the ice baskets. Therefore, downgrading the wire mesh to non-QA and allowing for cutting openings in the wire mesh will not affect the function of the ice baskets. This change does not involve an unreviewed safety question.

CE-3592

Description:

This exempt change increases the delay time for the 132DGT relay by 2 seconds in order to reduce spurious trips of the diesel generator during testing.

Evaluation:

The 132DGT relay is safety related. The relay can only trip the generator breaker during testing, therefore the probability of an accident previously evaluated in the FSAR will not be increased. The possibility of an accident which is different than any already evaluated in the FSAR will not be created because the control circuit for generator operation will not be modified. It has been determined that the increase of 2 seconds in the time delay will not adversely affect the generator. The consequences of an accident previously evaluated in the FSAR will not be increased. The probability or consequences of a malfunction of equipment important to safety previously evaluated in the FSAR will not be increased. The possibility of malfunctions of equipment important to safety different than any already evaluated in the FSAR will not be created.

CE-3250

Description

This exempt change provided electrical connections for the Auxiliary Feedwater Low Suction Pressure response time testing.

Safety Evaluation

This exempt change will revise control documents to indicate the location for the test connections. A set of spare cable conductors will be wired between 2EATC5 and 2AFWPTCP to allow testing of the B train circuitry at 2AFWPTCP. No connections to operating field devices will be made per this exempt change. The cables spares being used are safety related QA-1. The connections to the field devices will be controlled by the maintenance procedures for testing the affected circuitry. As a result, the probability and /or consequences of an accident previously evaluated in the FSAR will not be created nor will any accident different than that evaluated in the FSAR be created. The probability and/or consequences of a malfunction to equipment important to safety as evaluated in the FSAR will not be created by this change. This change will not create a revision to the margin of safety as stated in the bases to the Technical Specifications nor will it create any Technical Specification changes. Accordingly, this change will not create any unreviewed safety questions.

CE-3311

Description

This modification removed mirror insulation/supports on the Pressurizer and replaced it with blanket insulation.

Evaluation

The function or operability of the Pressurizer will not be affected by replacing the mirror insulation with blanket insulation. The function or operation of the NC system

and Pressurizer will not be affected by this change, therefore, this change does not increase the probability of consequences of an accident already evaluated in the FSAR. Also, this modification does not reduce the margin of safety as defined in any technical specification or bases.

CE-3417

Description

This exempt change revised the torque switch settings for valves 1FW033A, 1FW49B, 1ND059B and 1NV477 in accordance with the requirements of Generic Letter 89-10.

Evaluation

This exempt change will not affect any present signals that initiate valve motion. Valve operator speed and capacity is unaffected. Open and closure times of these valves will not change and will be determined by a stroke time retest on the valves required by Technical Specification 4.0.5. This modification does not affect the valves ability to perform their design function during an accident. No safety related functions are added or deleted to these valves. There is no unreviewed safety question associated with this change.

CE-3556

Description

This exempt change documents the installation of Unit 2 SG tube plugs during U2EOC4 refueling outage.

Evaluation

The installation of the tube plugs will not degrade primary boundary integrity, but will help maintain the RCPB. This ensures compliance with station Tech. Specs. for Reactor Coolant system leakage. All materials comply with Reactor Coolant and interconnected secondary system requirements as specified in the FSAR. Therefore, the probability or consequences of an accident previously evaluated in the FSAR will not be increased since the utilization of tube plugs in defective SG tubes serve to maintain the integrity of the RCPB while not affecting the design function of the SGs or the Reactor Coolant system as specified in the FSAR. The probability or consequences of a malfunction of equipment important to safety previously evaluated in the FSAR will not be increased since the application of this modification will not affect the function of any equipment or systems addressed in the FSAR. For the same reason, the possibility of an accident or malfunction of equipment important to safety which is different than already evaluated in the FSAR will not be created. This modification does not create an unreviewed safety question.

CE-3157

Description

The purpose of this modification is to raise the KC low flow setpoint for miniflow initiation.

Evaluation

The change in the setpoint for KC miniflow initiation is intended to increase the availability of the KC pumps during either normal operations or accident mitigation. The performance of the heat exchangers cooled by KC flow is not adversely affected by the modifications. Compliance with applicable criteria is not adversely affected. No new failure modes were identified in the evaluation. Neither any fission product barrier nor any source term evaluation is affected by the modification. KC pump failure induced by low flow is bounded by loss of flow through the associated KC train. Neither any design limit or operating parameter is changed. There are no unreviewed safety questions associated with this modification.

CE-3004

Description

This exempt change modifies RN Train A to delete the lube injection piping to connections "L" and "E" on RN pump 2A and deletes lube injection requirements for RN pump 2A.

Description

These changes are intended to increase RN pump availability by eliminating low lube injection flow concerns. RN pump 2A will be modified such that bearing lube injection requirements are provided for by the pump itself and no external lube flows are required. The pump manufacturer, Bingham, has evaluated this modification and has concurred with this change. Design Engineering has also reviewed the change and determined that RN pump 2A operation will not be affected. Stress analysis and support/restraint design have been reviewed and determined to be acceptable to support RN system operation and seismic qualification. This modification is an enhancement to the system, does not degrade any design parameters, and cannot initiate any FSAR accident. The RN pumps will function as before, will be more reliable and no new failure modes are identified. There are no unreviewed safety questions associated with this exempt change.

CE-3483

Description

This modification changed the maximum number of KC heat exchanger tubes that can be plugged from 450 tubes with a fouling factor not greater than 0.0041 to 1000 with a

fouling factor not greater than 0.0030.

Evaluation

The function or operability of the KC system will not be affected by allowing more than 450 tubes to be plugged in KC heat exchanger 1A. This exempt change does not reduce the margin of safety as defined in any technical specification and will not require a change to the Technical Specifications or FSAR. Therefore, no unreviewed safety question exists.

CE-3477

Description

This exempt change implements new limits for test acceptance criteria on snubbers.

Evaluation

Design Engineering has performed the appropriate calculations and analyses to determine the new snubber test acceptance criteria. Although the new criteria is less conservative than the current criteria, Design Engineering has determined that the function or operability of any system will not be affected. The function of the pipe snubbers will not be affected by this exempt change. No new failure modes were found to be identified with this exempt change. This change does not reduce the margin of safety in any technical specification bases. There are no unreviewed safety questions associated with this change.

CE-3498

Description

This exempt change provides an alternate bolt configuration for the Unit 1 and Unit 2 SG nozzle dams to support robotic installation/removal.

Evaluation

The bolt assemble utilizes an equivalent stud as originally supplied with the dams and does not affect the attachment of the dam to the SG insert as incorporated in the original design. Also, the additional bolt components required to support robotic installation/removal, excluding the bolt socket head weldment, do not perform a structural function. The bolt socket head weldment is similar in design to the original bolt hand nut and the attachment and function is not changed. Also, the original dam design parameters are not degraded by the application of the bolt socket head weldment. In order to insure proper installation, station maintenance procedures provide checks and balances to verify bolt position and thread engagement. No new failure modes were identified. There are no unreviewed safety questions associated with this modification.

CE-3206

Description

This exempt change replaced the refueling cavity seal with a seal of different design, but similar purpose.

Evaluation

No equipment used for any phase of refueling of normal operation is affected. No accident initiators are affected. No Chapter 15 analyses are affected. The reactor cavity seal has no analyzed safety related function and will not affect the consequences of an analyzed accident. No fission product barriers or source term evaluations are affected by this modification. The possibility of a seal failure is not increased. No setpoints, design limits or operating parameters are affected by this modification. There are no unreviewed safety questions associated with this modification.

CE-3566

Description

A backing plate with an extension pipe will be attached to the containment sleeve to allow penetration 2M113 to be sealed for leak rate testing.

Evaluation

Design Engineering has evaluated the installation of the backing plate and extension pipe and determined it to be acceptable. The operability or function of the penetration will not be affected. Also, it has been determined that the stress analysis of the containment penetration will not be affected by adding the plate and pipe. The attachment is non structural and will only be used during outage related leak rate testing of the penetration. This exempt change will not affect any design parameters associated with equipment important to safety. Per this evaluation, an unreviewed safety question does not exist.

CE-2766

Description and Evaluation

The safety evaluation supports the operation of Catawba fully withdrawn RCCAs at or above 222 steps for all future cycles, except Catawba 2 Cycle 5. The Catawba 2 Cycle 5 fully withdrawn RCCAs will be operated at or above 226 steps. Since operating the fully withdrawn RCCAs between 222 and 230 steps is within the mechanical abilities of the system, there is no possibility of creating an accident relative to the mechanical abilities of the CRDM which are different than any already evaluated. In addition, there is no increase in the probability of a stuck or dropped RCCA incident because the CRDMs are fully functional throughout the additional rod travel associated with the

established withdrawal limits. The probability or consequences of the accidents involving loss of flow when the RCCAs are operating between 222 and 230 steps withdrawn are enveloped by existing analysis. There are no unreviewed safety questions as a result of this change.

CE-3549

Description

This exempt change replaces the orifices used for the indication of CA flow to the SGs on Unit 2.

Evaluation

Flow from the CF pumps through the affected lines to the SG auxiliary nozzles will not be degraded by the modification. Stresses and loads associated with normal operation are not adversely affected. Compliance with design specifications is not degraded. no other equipment used for any phase of either power operation, shutdown cooling, fuel handling or radwaste treatment is affected. No new failure modes are identified to be associated with the modification. Neither any fission product barrier nor any source term evaluation is affected. Neither any setpoint, design limit, or operating parameter is affected. Thus, the modification will not reduce the margin of safety as defined in the basis for any technical specification. No unreviewed safety question is associated with this exempt change.

CE-3550

Description

This exempt change replaced valve 2CF164 (Valve Item Number 06J-601) with Valve Item Number 06J-238.

Evaluation

The function or operability of the CF system will not be adversely affected by the replacement of 2CF164 with a new type of valve. This exempt change does not reduce the margin of safety as defined in any technical specification. There are no unreviewed safety questions associated with this exempt change.

CE-3551

Description

This exempt change revised CNM-1205.00-1997 to reflect new thrust values for 2NS001B.

Evaluation

This exempt change will not affect any present signals that initiate valve motion. Valve operator speed and capacity is unaffected. Open and closure time of this valve does not change. This modification does not affect the valve's ability to perform its design function during an accident. No safety related functions are added or deleted to this valve. There is no unreviewed safety question associated with this modification.

CE-3825

Description

This modification allows suspension of the ice baskets from the intermediate deck steel.

Evaluation

The ice condenser is not used for any phase of normal plant operations. It has no interface with any plant system used either for power generation or shutdown cooling. The ability of the ice condenser to perform its accident mitigation functions is not degraded by this modification. The seismic qualification of the ice condenser is not degraded. No other plant system used for accident mitigation is affected by the modification. The margin in ice mass relative to the safety analysis is not degraded by this modification. There is no unreviewed safety question associated with this modification.

CE-3773

Description

This exempt change will change valve INV307, item number 4J-201, to a valve having item number 9J-351.

Evaluation

Design parameters are met by the replacement valve and the increase in the C_v will not adversely affect the function of the system. The increased weight of the replacement valve has been evaluated and determined to be acceptable. In addition, all valve dimensions meet the requirements of valve replacement. This modification does not create an unreviewed safety question.

CE-3030

Description

This exempt change procured and installed four 1/2 ton and four 2 ton underhung bridge cranes to the ice condenser plenum rails.

Evaluation

Design Engineering has concluded that the lifting beams do not present a seismic

interaction concern, nor will they prevent the ice condenser doors from functioning properly. The presence of non service level I coatings in containment as a result of this modification has been evaluated and found to be acceptable. There is no unreviewed safety question associated with this modification.

CE-3830

Description

This exempt change revises the start circuit, vibration switch mounting brackets, and the start timer circuit for Diesel Generator 1A.

Evaluation

The modifications to the start timer circuit and the vibration monitor mounting brackets will make these devices more reliable. The start circuit modification will not affect the emergency start characteristics of the diesel generators. There is no unreviewed safety question associated with this modification.

CE-3441

Description

This exempt change installed pressure gauges on the discharge side of the ND pumps downstream of check valves 1ND010 and 1ND044.

Evaluation

The half coupling and piping to the first root valve will be installed in compliance with the appropriate pipe specification. This modification will not add any flow restrictions to the ND system. No operating parameters of the ND system will change as a result of this modification. The instrument tubing will be seismically mounted from the root valve to the instrument. No seismic concerns exist for installation of these instrument loops.

CE-3657

Description

This modification removed humidistats VAMT5290 and VAMT5300 and their associated sensors from the Unit 1 and Unit 2 VA system.

Evaluation

Design conditions of the VA system are not affected by removal of the humidistats. Since the humidistats are housed in NEMA 4 enclosures, compliance with seismic criteria is not degraded. The ability of the SBFE system to minimize the release of radioisotopes from the ECCS pump rooms during accident conditions is unaffected by

removal of the humidistats. Compliance with Appendix R criteria is not degraded. These modification will not affect any safety limits, set points, or core parameters so the margin of safety as defined in the bases to any technical specification will not be reduced.. No system used to mitigate an accident is affected. Neither is a fission product barrier of any source term evaluations adversely affected.

CE-3772

Description

This exempt change modified valve 1KF22 by installing a globe disc and swivel nut using different part numbers as recommended by the manufacturer.

Evaluation

Based on the manufacture's recommendation of replacing these parts and the fit and function of the parts are the same as the original parts, Design Engineering has evaluated this change and determined it to be acceptable. The component will function as designed. This modification does not create an unreviewed safety question.

CE-3750

Description

This exempt change will revise vendor documents and flow diagrams to show the YC chiller pumpout units as QA condition 4. Also, bolt and torque requirements for the pumpout unit compressor will be added to the YC chiller O/M manual.

Evaluation

The pumpout unit serves no nuclear safety function. Therefore, the pumpout unit and associated tubing need to meet QA condition 4, seismic design criteria to prevent interaction with QA 1 components. The original seismic report for the YC chiller qualified the entire vendor supplied skid for seismic loadings, including the pumpout unit and associated tubing. Therefore, the pumpout unit and tubing meet QA condition 4, seismic criteria. This exempt change will not affect the function of the YC chiller(s), nor will this exempt change adversely affect any systems, components, or structures important to plant safety. There are no unreviewed safety questions associated with this exempt change.

CE-3776

Description

This exempt change will revise an existing note to allow a 75 ohm resistor to be installed in place of a failed end-turn sensor, and/or a failed slot sensor on the train A chiller (1CRA-C-1).

Evaluation

A single operable sensor is adequate to monitor winding temperature for abnormal temperatures. The quality of components used in this change are compatible with the QA condition of the chiller controls. No new credible failure modes associated with the change have been identified. There is no unreviewed safety question associated with this change.

Exempt Changes CE-3700 and CE-3701

Description:

The labeling of "QA Condition 3" or "Fire Protection - QA Required" was not consistent on design mechanical drawings. Portions of the RF/RV system piping was designated as non-QA on flow diagrams while the corresponding isometric, sprinkler system, or yard drawing designated the same portion of piping as QA Condition 3. These exempt changes update incorrectly labeled Fire Protection drawings by removing the QA Condition 3 label (CE-3700) or by showing the correct QA Condition 3 boundary on flow diagrams, isometrics, and Fire Protection layout drawings (CE-3701). There is no field work associated with these exempt changes.

Evaluation:

These exempt changes maintain the correct QA Condition 3 boundaries to ensure adequate fire protection for systems and components important to plant safety.

Exempt Changes CE-3592 (Unit 1) and CE-3593 (Unit 2)

Description:

These exempt changes change the relay setting for the diesel generator reverse power relays (1(2)32DGT/1(2)ETA18 and 1(2)32DGT/1(2)ETB18). The 1(2)32DGT relay detects motoring of the D/Gs due to loss of prime mover. These relays are connected to the generator breaker trip circuit only during testing of the D/G. During testing, the D/G is paralleled to the normal 4160 volt supply system. The delay time for the 1(2)32DGT relay is increased by two seconds in order to reduce spurious trips of the D/G breaker during testing. The trips occur when the 4160 volt bus is being returned to the normal source after generator testing.

Evaluation:

The relay can only trip the generator breaker during testing. The control circuit for generator operation is not modified. The increase in relay time delay has been evaluated and it was determined that an increase of two seconds in the time delay will not adversely affect the generator.

Exempt Change CE-3599

Description:

This exempt change changes the washer associated with the J-bolt detail for the cruciform suspension assembly for the ice condenser ice basket to non-QA. Also, a detail for the J-bolt is added to the ice basket drawings. Finally, this exempt change downgrades the wire mesh at the bottom of the ice baskets to non-QA and adds an allowance to cut maintenance access openings in the wire mesh.

Evaluation:

The configuration of the J-bolt assembly is such that the washer is loaded during maintenance activities or during blowdown immediately after a high energy line break. During maintenance loading or blowdown loading the nut on the J-bolt assembly is the load bearing member. Therefore, as long as the nut is intact, the J-bolt assembly will perform its intended function. The top plate assembly is the load bearing item which supports the ice basket, thus supporting the ice and maintaining the ice geometry. Therefore, downgrading the washer to non-QA will not affect the function of the ice baskets. The addition of the J-bolt detail to the ice basket drawings is an editorial change only. The wire mesh at the bottom of the ice baskets is used to support the blown in ice chips during maintenance. Once the ice has settled and solidified, the ten-gauge grid strips provide the structural support for the ice baskets. Therefore, downgrading the wire mesh to non-QA and allowing for cutting openings in the wire mesh will not affect the function of the ice baskets.

Exempt Change CE-3497

Description:

This exempt change allows supports 1-A-NV-8063, 8065, and 8478 to be modified by having their associated snubbers deleted or replaced. These supports were originally part of NSM CN-11005, Rev. 01.

Evaluation:

The function or operability of the NV system is not affected by modifying these supports. Calculations and analyses for the reduction of snubbers and related support modifications were performed to ensure the affected NV system piping is adequately supported during normal operation and seismic events.

Exempt Change CE-3736

Description:

This modification redistributes the load to coupling capacitor voltage transformers (CCVTs). Effecting the modification requires that one of the two switchyard buses (yellow or red) be out of service and de-energized while the work on the CCVTs is in

progress.

Evaluation:

Contingency plans associated with the implementation of this modification do not result in either a loss of external load or in a loss of offsite power. Only equipment associated with the switchyard is affected by the work to implement the modification. No other equipment used for any phase of either power generation, shutdown cooling, fuel handling, and radwaste treatment is affected. An unmitigated loss of the switchyard is bounded by the loss of external load accident. No equipment used to mitigate any accident is affected. No equipment in the EPA system is affected.

Exempt Change CE-3348

Description:

This exempt change was originated to replace the existing one-piece piston ring with two-piece wedge style piston rings in valves 2SB009, 2SB018, and 2SB027. The associated spacer is also replaced with a spacer designed to be compatible with the new piston ring.

Evaluation:

The above valves are non-safety related and do not perform any safety function. The function or operability of the SB system is not affected by providing the two-piece wedge style piston ring and associated spacer. These valves do not interface with any plant system used for accident mitigation. No new failure modes are identified with this exempt change.

Exempt Change CE-2486

Description:

Breakers 1ETA2 and 1ETB2 have demonstrated the possibility of not closing properly during blackout testing of the diesel generator load sequencer. To ensure proper closing of these breakers, this exempt change wires normally closed contact on relay GC in the trip circuit in parallel with manual trip switch EG-56.

Evaluation:

The interlock between the EPC-ETB feeder breakers and the EPC alternate incoming breakers are not adversely affected by the modification. No interface between either the EPC or ETB switchgear and any other system used for any phase of either power operation, shutdown cooling, fuel handling, or radwaste treatment is adversely affected. Compliance with neither Appendix K nor separation criteria is degraded. No new failure modes were identified in this evaluation. No other interface with any equipment used for accident mitigation is affected. Neither any setpoint, design limit, nor any operating parameter is affected.

Exempt Changes CE-3360, CE-3361, and CE-3362

Description:

These three exempt changes install manual valves to isolate the NI system test header from the test lines associated with the following valves:

CE-3360 - 2NI130, 2NI131, 2NI122B, and 2NI154B

CE-3361 - 2NI092, 2NI132, and 2NI133

CE-3362 - 2NI163

These manual valves will provide reliable isolation of the associated test line and will help prevent pressurization of the test header. The new manual isolation valves are Anchor Darling double disc gate valves.

Evaluation:

The function or operability of the NI system will not be affected by the installation of these valves. The design of the valves is acceptable for this application. The pressure and temperature ratings of the valves meet or exceed the design conditions in this portion of the NI system. The material of the valves is compatible with the NI system contents. Piping or support modifications are not required for installation of the new valves and there are no seismic concerns. Installing the valves as isolation valves will not affect the function of the test lines. These exempt changes do not affect any design parameters associated with equipment important to safety. Neither any setpoint, design limit, nor operating parameter is affected.

Exempt Change CE-3105

Description:

The auxiliary feedwater pump turbine trip and throttle valve (2SA145) packing area has high and low pressure leakoff lines that are routed to the CAPT exhaust drain header which drains to a sump. The valve installed in each of these leakoff lines has a potential to clog which causes water to back up into the packing area of 2SA145. This situation could result in corrosion of the valve stem for 2SA145. This exempt change was originated to remove valves 2SA014 and 2SA015.

Evaluation:

SA function or operability is not affected by removing the above valves. The function of the leakoff lines is to continuously remove condensate from the packing area of 2SA145 so valves 2SA014 and 2SA015 are normally in the open position during system operation. Removing the valves from the leakoff lines will provide better drainage and reduce the potential of the lines becoming clogged. Removing the valves will not adversely affect the operation of either 2SA145 or the SA system and will have no

effect on stress analysis. The 2SA145 packing area leakoff lines will continue to perform their intended function.

Exempt Change CE-3530

Description:

The CRDM missile shield tie down bolt sleeves have experienced thread damage due to normal wear. Grinding the damaged threads smooth will prevent interference with bolt removal/installation. It was necessary to add a note to the CRDM missile shield tie down rod assembly detail which indicates the minimum thread engagement required for proper installation. This exempt change documents this drawing change to indicate minimum required thread engagement.

Evaluation:

The minimum threads required are adequate to develop the full capacity of the tie down bolts. Therefore, as long as the minimum number of threads required are available, the missile shield tie down assembly will perform its intended function.

Exempt Change CE-3311

Description:

This exempt change was originated to update documents to allow the mirror insulation and steel supports in the pressurizer bottom head area to be removed and blanket insulation to be installed.

Evaluation:

Pressurizer function or operability is not affected by replacing the mirror insulation with blanket insulation. Duke Specification DPS 1206.13-00-0001, Rev. 1 allows replacement of mirror insulation with blanket insulation inside containment. The new blanket insulation and supports for the pressurizer meet all conditions addressed in DPS 1206.13-00-0001, Rev. 1.

Exempt Change CE-3121

Description:

This exempt change installs an improved packing configuration and associated minor changes on valve 2RN291 to enhance valve performance.

Evaluation:

This modification does not affect the function or operation of the valve in any way. There is no effect on the opening/closing time of the valve, the torque requirements for the valve, or the flow rates through the valve. In addition, all of the parts associated with the modification are qualified to operate in the environment in which they are

used. No setpoint, operating parameter, or design limit is changed as a result of this modification.

Exempt Change CE-3283

Description:

This exempt change revises the control circuitry for valves 2NI173A and 2NI178B to provide throttling capability. It also replaces the nameplates for breakers 2EMXA-207D and 1EMXJ-R04A.

Evaluation:

Modification of the control circuits will not degrade the safety function of the valves. By utilizing redundant 1E position for the valves, there are no new credible failure modes created. The new operating characteristics are incorporated into procedures where appropriate. No operating parameters, safety limits, or setpoints are changed.

Exempt Change CE-3824

Description:

Some Westinghouse drawings are reissued to allow the use of shorter ice baskets to replace the 12 foot baskets found to be damaged. Other changes made include the reissue of the Westinghouse procurement specification for the replacement baskets and the release of the latest revision of the Westinghouse ice basket end grid assembly drawing.

Evaluation:

The ability of the ice condenser to perform its accident mitigation functions is not degraded by the modification. Compliance with seismic and environmental criteria is not adversely affected. No other equipment used to mitigate an accident is affected. Neither the containment nor post-LOCA source term evaluations are adversely affected.

Exempt Change CE-3629

Description:

This exempt change replaces BAN type fuses in essential motor control center secondary CPT circuits with BAF type fuses and revises affected drawings. Incorrect secondary fuse numbering on specific CNBMs is revised. In addition, vendor manual CNM-1314.01-0140-001 is added as a drawing reference to all the essential motor control center one-line lists.

Evaluation:

The deletion of BAN fuse types from the bill of materials establishes CNM-1314.01-

0140-001 as the single source document to determine what type of fuse is required for use in essential motor control centers. This should eliminate confusion and improper fuse selection. In addition, the drawing corrections will help to ensure plant configuration controls are in place. No USQ exists in conjunction with this exempt change.

Exempt Change CE-3865

Description:

This exempt change documents the installation of plugs and sleeves in the Unit 1 steam generators during the IEOC6 refueling outage.

Evaluation:

The installation of the tube plugs and sleeves will not degrade primary system pressure boundary integrity, but will serve to maintain it. All materials comply with the reactor coolant and interconnected secondary system requirements as specified in the FSAR.

Exempt Change CE-3795

Description:

This exempt change modifies valve 1NI120B, to a valve having a soft seat disc assembly and retags the valve. All affected drawings are revised to reflect this new information. The exempt change also revises the Kerotest valve outline drawing to allow optional use of an external tooth lock washer between the motor operator coupling and the jam nut. Affected documents are revised to reflect the option to use the lock washer supplied by Duke and a non-QA condition item.

Evaluation:

The new design will allow a better seat than the hard seat design and will prevent backseat leakage as well as reduce the possibility of the valve sticking in the closed position. This will enhance the operation of the valve in its application and increase reliability of the system. All valve dimensions are identical. A stainless steel, external tooth lock washer supplied by Duke is used to alleviate vibration problems in this type of valve. The lock washer is not required for valve operability, but will serve to prevent the loosening of the jam nut. This will increase valve reliability by ensuring integrity of the valve motor operator coupling connection. Application of the lock washer has been reviewed and approved by Engineering and Kerotest.

Exempt Change CE-3429

Description:

This exempt change installed 0.109" orifices in port P of the fast-acting solenoid valves

for the main turbine stop valves to prevent low ETS pressure.

Evaluation:

All valves were tested prior to their return to service to ensure proper operation. A response time test was performed to ensure that this change did not affect the valves' time response on a closure signal. This also ensures that the main turbine overspeed protection remains operable. All work was performed in modes where the main turbine overspeed protection is not required operable.

Exempt Change CE-3267

Description:

This exempt change replaces 1NIPS5310 and 1NIPS5320 with CCS Model 604GZ5-7011 pressure switches. The pressure switches previously installed were equipped with Polyimide diaphragms, which were malfunctioning at an unacceptable rate. The exempt change also revised the Unit 1 NI I&C list to reflect the model number changes.

Evaluation:

Other than the use of stainless steel diaphragms, the replacement models are identical in fit, form, and function to the previous models. The pressure switches replaced are not safety related and the system's function is not affected in any way by the implementation of this exempt change. The effectiveness of any equipment important to safety is not degraded during any design basis events, as there has been no operational change to the plant.

Exempt Changes CE-3611 and CE-3612

Description:

These two exempt changes replace numerous four inch strip control room chart recorders with Westronics Series 2100 chart recorders. The exempt changes also delete NC40 (1NVCR6010) on 1MC5 as well as relocate and consolidate other chart recorders.

Evaluation:

Replacement and consolidation of these chart recorders will have no effect on the safe shutdown of the plant in that they provide indication only and serve no controlling function. The deletion of NC40 is a result of the boronometer no longer being used for calculation of boron concentration. As a result, the chart recorder is no longer necessary. All recorders replaced are replaced with recorders that meet and are qualified to QA-1 standards.

CE-3428

Description

This modification installed 0.109 inch orifice in port "P" of the fast acting solenoid valves for Main Turbine Stop valves, Control Valves, and Comb. Int. Valves to prevent low ETS pressure.

Evaluation

All valves will be tested prior to their return to service to ensure proper operation per FSAR and Tech. Spec. Because the stop valves are being revised per this change, a response time test will be performed to ensure that this change will not affect the valves time response on a closure signal. This will also ensure that the Main Turbine Overspeed protection remains operable per Tech. Spec. As a result, the probability and/or consequences of an accident previously evaluated in the FSAR will not be created nor will any accident different than that evaluated in the FSAR be created. The probability and/or consequences of a malfunction to equipment important to safety as evaluated in the FSAR will not be created by this change. This change will not create a revision to the margin of safety as stated in the basis to the Tech. Spec. nor will it create any Tech. Spec. changes. Accordingly, this change does not involve any unreviewed safety questions.

CE-3837

Description:

This Exempt Change will add "Thread Degradation Evaluation Criteria" forms to the vendor I/M manual to document the number and location of lost threads.

Evaluation:

A report was performed for Duke Power to establish criteria for accepting/rejecting vessel stud/stud hole degradation. These forms incorporate the new criteria. Damaged threads found during 1EOC6 were repaired and subsequently "lost" as part of head maintenance and prep for reassembly. The number and location of the lost threads met the criteria set forth, therefore the ability of the reactor vessel to maintain the integrity of the reactor coolant system pressure boundary has not been impaired. This Exempt Change will document the as-built status of the reactor vessel stud hole threads.

CE-2687

CE-2688

Description:

This Exempt Changes replaces Moore Products 350L Manual Loader for 2VYML0190 (CE-2687) and 2NVML1241, 2940, 2NVSS5571, and 5562 (CE-2688), with a Moore Products 352B Single Loop Digital Controller. The new controller will function the same as the existing loader. The only changes will be the wire termination's on the

controller.

Evaluation:

The manual loaders to be replaced are QA and performs no safety function. Failure of the controllers are not evaluated in the FSAR, and therefore the probability of any malfunctions of equipment important to safety previously evaluated in the FSAR will not be increased. Replacing the loaders will not degrade the safety function of any safety related systems or equipment. Since the controllers are seismically compatible with the present loaders, no new failure modes are created. No operating parameters, safety limits, or setpoints will be changed, therefore no margins of safety as defined in the bases of Technical specifications will be reduced.

CE-2843

Description:

This Exempt Change changes the setpoints for the level alarms for the Boric Acid Tanks. This change, based on Design calculations, will assure the required volumes are met and ensures Technical specification compliance by accounting for an unusable volume below the outlet nozzle of the BAT, reducing indicated tank volume inaccuracies.

Evaluation:

This modification will have no effect on the level instrumentation's' ability to perform their safety function and will allow a more conservative level indication. The indicated usable volume in the BAT will now accurately reflect the required Technical Specification volume.

CE-3005

Description:

This Exempt Change modifies RN Train 'B' to delete the lube injection piping to connections 'L' and 'E' on RN pump 2B and delete lube injection requirements for RN pump 2B. RN pump 2B will be modified such that bearing lube injection requirements are provided for by the pump itself and no external lube flows are required, with manufacturer's and Design Engineering's concurrence.

Evaluation:

These changes are intended to increase RN pump availability by eliminating low lube injection flow concerns. The RN pumps will function as before, will be more reliable, and no new failure modes are identified.

CE-3152

CE-3153

Description:

This exempt change replaces Westinghouse Type HFB3125 ambient compensated breakers for the Containment Air Return fan Motors and the Hydrogen Skimmer Fan Motors (CE-3152 on Unit 1, CE-3153 on Unit 2) with standard 40 degree C breakers. To be consistent with Design Engineering standards, the power fuses must also be increased to 150 amps.

Evaluation:

These breakers are QA 1E whose safety function is to provide power to the Containment Air Return and Hydrogen Skimmer Fan Motors. These fans are not accident initiators, and therefore do not increase the probability of an accident evaluated in the FSAR. Replacement of these breakers do not change the operation of the VX system in any way and no new cables are being added. Increasing the feeder breakers to 150 amps, providing additional trip margin, will not exceed the capacity rating of the fan motor feeder cable. New breakers/fuses are tested prior to installation. Upon completion, a function verification of fan motor start without breaker trip will be performed. Fan motor control circuitry will not be affected by this mod.

CE-3326

Description:

This Exempt Change modifies valves 2NI56, 67, and 90 to a soft seat disk assembly to prevent seat leaks in these valves.

Evaluation:

The function or operability of the NI system will not be affected by this modification. The soft seat disk assembly has been tested in this type of air operated valve and has proven to be acceptable for this application. The valves will continue to function in the same manner as before, however this new configuration should minimize leak problems. The soft seat disk assembly is acceptable for use in the NI system up to temperatures of 300 degrees F and will not degrade due to radiation effects per Design Engineering.

CE-3492

CE-3493

Description:

This Exempt Change will install quick connects and isolation valves so that a septum apparatus can be installed in the PACS panel for obtaining a hydrogen concentration sample (CE3492 for Unit 1 and CE-3493 for Unit 2).

Evaluation:

The function of the Nuclear Sampling System (NSM) will not be adversely affected by the addition of the isolation valves and quick connects. The isolation valves will be an effective boundary for the containment atmosphere which will pass through the PACS panel when in use.

CE-3499

Description:

NSM CN-11005, Rev. 01 identified supports that could have their associated snubbers deleted or replaced based upon new support/restraints technology that allows a reduction in the plant snubber population. This Exempt Change provides modifications to two supports which were omitted and should have been included (1-R-ND-0039 and 1-R-ND-0042).

Evaluation:

The function or operability of the ND system will not be affected by this modification. Design Engineering has performed the necessary calculations to verify the affected ND system piping will be adequately supported during normal and seismic events. No setpoints, design limits or operating parameters are affected.

CE-3500

Description:

This Exempt Change will modify YM and RN supply check valves to the NW Surge Chambers to soft seat disk assemblies due to problems maintaining level and pressure in the chambers caused by seat leakage with those valves.

Evaluation:

Valves affected are 1NW6, 9, 63, and 66. Installing soft seat disk assemblies will assure NW Surge Chambers can maintain level and pressure required to keep NW operable. This modification does not affect system function in any way.

CE-3505

Description:

This Exempt Change revises Test Acceptance Criteria sheets for the Auxiliary Feedwater Turbine Driven Pump (CAPT-2) and its associated lube oil cooler in regards to:

- 1) measured flow rates did not agree with the calculation values and were not corrected for actual pump test conditions,
- 2) TAC sheets did not adequately identify the maximum lube oil cooler flow rate or the

pressures at which the normal flow rates would occur.

Evaluation:

Issuing the revised TAC sheets will provide personnel with more accurate information regarding acceptance criteria when testing the CAPT-2 and its associated lube oil cooler. Testing to the new criteria will not require a change to pump or cooler operation. There will be no physical or operational change to the CAPT-2 or its lube oil cooler. The safety related aspects of the CA system will be maintained.

CE-3510

Description:

This Exempt Change will issue revised flow diagram and isometric drawings to correct identified discrepancies from the CA system SITA.

Evaluation:

The identified drawing problems have probably occurred during numerous revisions and drawing upgrades over time, the most serious being incorrect valves numbers which were fortunately vents and drains. Therefore the normal operation of the CA system would not have been jeopardized by the mispositioning of these valves. The drawing revisions will improve the usability of the drawings, and lessen the chance for improper valve alignments. There will be no physical or operational changes to the CA system.

CE-3600

CE-3601

CE-3602

CE-3603

Description:

These Exempt Changes change the relay setting sheets for ETA and ETB on both units (CE-3600 for 1ETA, CE-3601 for 1ETB, CE-3602 for 2ETA, CE-3603 for 2ETB) degraded undervoltage relays. The relay settings do not agree with Table 3.3-4 of Tech Specs. Table 3.3-4 lists the trip setpoint for the 4 KV Bus Undervoltage Grid Degraded Voltage to be 3685 V. The relay setting sheets lists the dropout voltage to be 104.5V, which corresponds to a trip setpoint of 3657V. The relay calibration and test procedures list a dropout voltage that corresponds to a trip setpoint of 3685.5 to 3762.5V. Therefore the station procedures and actual relay settings agree with Tech Specs, but the relay setting sheets are incorrect.

Evaluation:

These relays are safety related. No modification to station equipment will be required. The new values will decrease the allowed voltage drop on ETA, to a more conservative value for protection of equipment from undervoltage.

CE-3625

Description:

This Exempt Change rescales transmitters 2CAFT5093, 5103, 5113, and 5123 from 0-1250GPM (0-1162 INWC) to 0-1450GPM (0-1564INWC). This will allow tempering flow to be adjusted and the "lower nozzle high flow computer alarm" to operate properly.

Evaluation:

These instruments measure main feedwater flow to the steam generators through the auxiliary feedwater nozzles. These instruments do not serve a safety related function and do not affect inputs to PAM (Post Accident Monitoring) instruments. This Exempt Change will allow the correct upper nozzle flow to be used in the calculation for lower nozzle flow. This is an important parameter due to the high (upper) limit placed on lower nozzle flow. The existing model transmitters can be rescaled to the new process range that is necessary to adjust tempering flow. This new process range is in the upper end of the transmitter range which adds more instrument inaccuracy, but is negligible. Accordingly, the change will not increase the probability or consequences of an accident previously evaluated, or different than any already evaluated, in the FSAR.

CE-3628

Description:

The Exempt Change will revise Vendor Manual CNM-1314.01-0140-001 to provide additional Bussman fuse upgrades specified for Nelson Electric Motor Control Centers.

Evaluation:

The fuse types currently listed in the Vendor Manual are either no longer manufactured or they are being phased out. Once our stock is depleted, some safety systems could be rendered inoperable. The fuse upgrades will provide the same type of fuses (fit, form & function) as the original fuses, with the exception of a much higher maximum interrupting current ratings. Changing the Vendor Manual will not increase the probability of an accident or malfunction of equipment important to safety. No unreviewed safety question are associated with this change.

CE-3639

Description:

This Exempt Change will change the setpoint of relay K2 on current alarm 2VQLP5041 to -0.03 PSIG for decreasing containment pressure, the current alarm will be recalibrated and a loop check on 2VQLP5040 will be performed. Pressure transmitter

2VQLP5040 provides the signal input to 2VQLP5041.

Evaluation:

Tech Spec 3.6.4.1 limits containment pressure to a range of -0.1 to =0.3 PSIG during modes 1-4. The potential exists with the combination of loop accuracy (-0.058 PSIG) and alarm setpoint (-.05 PSIG) to have exceeded the lower Tech Spec limit of -0.1 PSIG at the time the alarm is received. Therefore, to prevent this possible Tech Spec violation, a set point change for the current alarm is justified. Changing this setpoint will not increase the probability of an accident or malfunction of equipment important to safety. VQ system operation will not be affected.

CE-3646

Description:

This Exempt Change will modify valve 2NV-236B, item # 9J-508, to having a solid disc assembly with Limitorque spring pack # 0301-110 with item #9J-617. All affected drawings will be revised to reflect this new information.

Evaluation:

The change from a packless valve to a packed valve without a leakoff line will not be a concern for system operations. The carbon steel piping in the area is coated and routine surveillance of the area will assure no equipment damage will occur in the event of valve leakage. The change to a packed valve will have no effect on the valve operator. All valve dimensions are identical. The change to a solid disc assembly and the addition of the Limitorque spring pack will reduce the likelihood of the disc sticking on the seat and the valve failing to open. This will enhance the operation of the valve in its application and increase the reliability of the system.

CE-3652

Description:

This Variation Notice will delete the revisions created by Exempt Change 3652 . The original item # 9J-505 will remain in the system. All affected drawings will be revised to reflect this new information.

Evaluation:

The soft seat design modification would not pass functional verification testing required for the system application. A 9J-505 valve was procured from the warehouse and after shop testing with good results, and based on the low system DP, the hard seat design will be the best application. There is damage to the existing valve, and it has been determined that a new valve will need to be installed. Since the component will function as originally designed, the possibility of equipment malfunctions is not increased.

CE-3673

and

PT/0/A/4150/30, Initial Issue

Description:

The intent of this change is to implement measures which will reduce RCCA wear which occurs as a result of flow induced vibratory contact between the RCCA rodlets and the upper internals guide cards when the RCCAs are operated in the parked, fully withdrawn position.

Evaluation:

Westinghouse recommends repositioning the operating elevation of the fully withdrawn RCCAs at frequent intervals to minimize wear concerns. This evaluation supports the operation of Catawba fully withdrawn RCCAs at or above 222 steps for all future cycles, except Catawba 2, cycle 5 (at or above 226 steps). This change identifies the minimum elevation of fully withdrawn RCCA operation to be 222 steps. RCCA fully withdrawn operation at or above the minimum elevation is acceptable for both annual and monthly repositionings. In summary, modifying the elevation of the Catawba fully withdrawn RCCAs to allow operation at 222 steps or above (226 or above for Catawba 2, cycle 5) does not increase the probability or consequences of the accidents or safety related equipment malfunctions that are evaluated in the FSAR. No equipment used for accident mitigation is either directly or indirectly affected. RCCA repositioning between 222 and 230 steps withdrawn will reduce RCCA cladding wear, extend RCCA life, and ensure RCCA functional requirements are maintained. Therefore, there are no unreviewed safety questions associated with this change.

CE-3479

Description

This change made several changes to the software associated with the Digital Feedwater Control System.

Evaluation

These changes will allow the system to respond as designed and to reduce the severity of transients induced by the system. These changes were modeled and verified prior to installation. These changes were reviewed and approved by Westinghouse and were incorporated into their model of the CNS Unit 1 Digital Feedwater Control System and responds as designed. This change will provide more stability to the system and will not reduce the margin of safety as defined in the bases of any Technical Specification. Therefore, this change does not represent an unreviewed safety evaluation.

Exempt Changes

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CE-3814

Description

This change revised the electrical grounding connections for both trains of the Boron Dilution Mitigation System (BDMS).

Evaluation

A vendor representative for the BDMS system evaluated our installation and determined that our grounding system should be modified. It was determined that the present grounding system was not sufficient enough to remove electrical interferences from the equipment. The vendor recommended that the instrument grounding connections be removed and the station ground be connected to the terminal boxes which house the electronics. This change does not revise the system's function as stated in the FSAR or Tech Specs and allows the system to operate as designed. Therefore, this change does not represent an unreviewed safety evaluation.

CE-3825

Description

This change modified Design drawings to create a generic detail which illustrates an acceptable method for suspending an ice condenser basket from the intermediate deck steel.

Evaluation

The entire ice load for the ice condenser baskets are supported by cable suspended from L6X6 cross beams which are attached to the intermediate deck support steel. An analysis performed by Westinghouse indicates that the ability of the lattice frames and support columns to withstand design basis loads is not degraded by this modification. Duke calculations show that the angle (L6X6) and cable will withstand design loads associated with the ice condenser as bounded by the limits shown on the drawings. Therefore, this change does not affect the ability of the ice condenser to perform its accident mitigation function and does not represent an unreviewed safety evaluation.

CE-3097

Description

This exempt change provided an access hole in S/G 2D needed to perform a radiographic inspection of a weld between 2D S/G and the main steam piping. After the inspection was completed, the hole was plugged.

Evaluation

The function or operability of the SM system was not affected by this change. The plug used was designed to function at the temperature and pressure conditions experienced at this portion of the SM system. The plug was seal welded and maintains the integrity of the SM system and acts as part of the pressure boundary. Proper clearance is maintained to satisfy seismic concerns. The location of the hole has been reviewed by engineering and there are no piping stress concerns. Therefore, this change does not affect the 2D S/G in a significant manner and does not represent an unreviewed safety evaluation.

CE-3522

Description

This exempt change provided an access hole in the 2D S/G needed for the removal of a loose part in the steam outlet nozzle area. After the loose part was retrieved, the hole was plugged.

Evaluation

The function or operability of the SM system was not affected by this change. The plug used was designed to function at the temperature and pressure conditions experienced at this portion of the SM system. The plug was seal welded and maintains the integrity of the SM system and acts as part of the pressure boundary. Proper clearance was maintained to satisfy seismic concerns. The location of the hole has been reviewed by engineering and there are no piping stress concerns. Therefore, this change does not affect the 2D S/G in a significant manner and does not represent an unreviewed safety evaluation.

CE-3031

Description

This exempt change installed four 1/2 ton and four 2 ton underhung bridge cranes in the Ice Condenser Plenum and added end stops to the ends of the Ice Condenser Plenum crane rails.

Evaluation

The main safety concerns of this modification were the potential for the lifting beams to interact under seismic loadings with safety related equipment, the potential for the lifting beams to interfere with the operation of the ice condenser doors, the effects of non-service level 1 coatings in containment, and the presence of aluminum in containment. Design evaluated each of these items and determined that none of them present a problem and that the design basis of the ice condenser is not affected in a significant manner by this change. Therefore, this change does not represent an unreviewed safety evaluation.

CE-3571

Description

This exempt change installed a threaded plug in the top cap vent tool/eyebolt hole of the CRDMs to retain potential reactor coolant system leakage past the vent plug.

Evaluation

The plug was designed in accordance with applicable codes to meet pressure boundary requirements and the pressure boundary was not degraded by the installation of the plug. Utilization of the plug does not affect CRDM operation or affect the integrity of the CRDM housing. The material used complies with reactor coolant system requirements as specified in the FSAR. This change does not affect the function of any equipment or systems addressed in the FSAR in a significant manner and therefore, does not represent an unreviewed safety evaluation.

CE-3150

Description

This exempt change installed a hot gas bypass line to each YV chiller to reduce the number of trips caused by low load conditions.

Evaluation

The YV system is not used for accident mitigation. No system used for accident mitigation is affected by the modification. The ability of the YV and VV systems to maintain containment lower compartment temperatures to within the limits assumed in the safety analysis is not affected by the modifications. Thus, no fission product barriers are adversely affected by the modification. Neither any setpoint, design limit, nor operating parameter was changed as a result of this modification. Therefore, this change does not represent an unreviewed safety evaluation.

CE-3129

Description

This exempt change installed an improved packing configuration and associated minor changes on valve 2RN-351 to enhance valve performance.

Evaluation

This modification does not affect the function or operation of the valve in any way. There is no effect to the opening/closing time of the valve, the torque requirements for the valve nor the flow rates through the valve. In addition, all the parts associated with the modification are qualified to operate in the environment in which they are used. The valve continues to function as it did prior to the modification and no other equipment important to safety was adversely affected by this modification. No setpoint, operating parameter, or design limit was changed as a result of this modification. Therefore, this change does not represent an unreviewed safety evaluation.

CE-3503

Description

This exempt change added bolting material and torque value information to CNM-1318.20-0014 for the RN System Pump Motor Manual to provide motor cooler installation requirements.

Evaluation

Engineering personnel evaluated this change and determined it to be acceptable. This change does not affect the safe operation of the RN pumps or any other equipment important to safety. The materials used are QA condition and proper installation in accordance with existing maintenance procedures will not increase the probability or consequences of an accident. Therefore, this modification does not create an unreviewed safety question.

CE-2635

Description

This exempt change replaced the 24-position selector switch in Bay 2 of the Unit 1

Process Radiation Monitoring Cabinet with a new switch that is slightly larger than the original. This replacement switch required modification to Bay 2 in the form of a larger panel cutout. The original switch was broken and this type switch is no longer manufactured.

Evaluation

The new switch and the increase in the diameter of the panel cutout does not degrade the seismic mounting of the cabinet. The operating characteristics and electrical properties of the switch are the same as the existing switch. Based on this, no new failure modes are created by replacement of the switch. The switch and recorder perform no safety function and cannot degrade the safety function of any safety related equipment. Therefore, this change does not represent an unreviewed safety evaluation.

CE-3342

Description

This exempt change provided an access hole in S/G 2C needed to perform a radiographic inspection of a weld in accordance with ASME Code Section XI inservice inspection requirements. After the inspection was completed, the hole was plugged.

Evaluation

The function or operability of the SM system was not affected by this change. The plug used was designed to function at the temperature and pressure conditions experienced at this portion of the SM system. The plug was seal welded and maintains the integrity of the SM system and acts as part of the pressure boundary. Proper clearance is maintained to satisfy seismic concerns. The location of the hole has been reviewed by engineering and there are no piping stress concerns. Therefore, this change does not affect the 2C S/G in a significant manner and does not represent an unreviewed safety evaluation.

CE-3568

Description

This exempt change added a note to the leak seal repair drawing for valve 2SV-27A to provide an optional repair method for holes drilled for leak seal. This option allows the use of a pipe plug of SA696 material which is compatible with the valve body material.

Evaluation

This change has no affect on the safe operation of the valve. The valve continues to function as designed. The materials used are QA condition and proper installation in accordance with existing maintenance procedures does not increase the probability or consequences of an accident. Therefore, this modification does not create an unreviewed safety question.

CE-2686

Description

This exempt change replaced 16 Moore Products 350L Manual Loading Stations with Moore Products 352B Single Loop Digital Controllers.

Evaluation

The manual loaders which were replaced are non-QA and perform no safety function. The new controllers are seismically and electrically compatible with the present controllers and therefore, do not introduce any new failure modes which could increase the probability or consequences of an accident previously evaluated in the FSAR. The failure of these controllers is not evaluated in the FSAR. Replacing the loaders will not degrade the safety function of any safety related systems or equipment. Therefore, this modification does not create an unreviewed safety question.

CE-3102

Description

This exempt change replaced the Condenser Cooling Water (RC) Pump's stuffing box seal water lines with a less corrosive material.

Evaluation

The only equipment associated with this modification are the non-safety related RC pumps. No safety related system or component is affected by the modification. The replacement lines do not affect the system capability of providing bearing cooling water and stuffing box seal water as required. Since no safety parameters or design limits were adversely affected, the margin of safety as defined in the bases of Tech Specs was not reduced. Therefore, this modification does not create an unreviewed safety question.

CE-3088

Description

This exempt change replaced the existing CAPT control valve stem with a new valve stem which is more resistant to corrosion.

Evaluation

The new stem was evaluated by the vendor (Dresser-Rand) and no concerns over operability were identified. The new stem base material is the same as the original, therefore, strength of the stem is not affected. The weight change of the stem is negligible and no seismic qualifications are affected. The QA condition of the stem is still QA condition 1. The modified valve only controls steam to the CA pump turbine and steam is not admitted to the turbine until the CA pump receives a start signal. The valve has been evaluated and determined to operate as before and no new failure modes have been determined. The operation of the CA pump turbine is unaffected. Therefore, this modification does not create an unreviewed safety question.

CE-3442

Description

This exempt change installed pressure gauges on the discharge side of the ND pumps downstream of check valves 2ND-67 and 2ND-68. These gauges are used to monitor ND pressure when opening the miniflow valves to ensure the ND suction relief valves do not lift.

Evaluation

The gauges were installed in compliance with the appropriate pipe specification and were seismically mounted. This change did not add any flow restrictions to the ND system since this is only a pressure tap. No operating parameters of the ND system were changed as a result of this modification. The gauges used were approved for all design basis accident conditions. Therefore, this modification does not create an unreviewed safety question.

CE-3359

Description

This exempt change deleted 3 NI valves and the associated test line piping between the 1-inch test header and the 3-inch header from the NV system centrifugal charging pumps to the NC system cold legs.

Evaluation

The function or operability of the NI system is not affected by the deletion of the test line and NI valves. This test line does not serve any function since the check valves in the header do not require any testing. Deleting the piping and valves does not cause any piping stress or support problems. This change does not affect any design parameters associated with equipment important to safety. In addition, no setpoint, design limit or operating parameter is affected. Therefore, this modification does not create an unreviewed safety question.

CE-3526

Description

This exempt change revised the Design Specification, Operation and Maintenance manual to reflect the changes made by the manufacturer to the condenser used in the Auxiliary Shutdown Panel Supply Unit (ASPSU). This change allows the use of 0.032" thick tubes and SA-516 Gr. 70 material for the channel heads and covers.

Evaluation

The new specifications meet the appropriate construction and code requirements for the ASPSU condensers. The new condenser construction does not degrade or decrease the performance of the ASPSUs. The structural integrity of the condenser is not lessened by the use of the new material. The safety related aspects of the ASPSU will be maintained should one of the new condensers be installed. Therefore, this modification does not create an unreviewed safety question.

CE-3428

Description

This exempt change installed 0.109" orifices in port "P" of the fast acting solenoid valves for the Main Turbine Stop Valves, Control Valves, and Combined Intermediate Valves to prevent low ETS pressure.

Evaluation

A General Electric (GE) Engineering Change Notice identified a problem concerning low ETS pressure transients and recommended this modification to prevent low ETS pressure during valve testing. The new orifices were ordered from GE and are compatible with the system requirements. All valves were tested prior to their return to

service to ensure proper operation per the FSAR and Tech Specs. Response time testing was also performed to ensure the change did not affect the valve time response on a closure signal. This testing was successful and verified the operability of the Main Turbine Overspeed protection per Tech Specs. Therefore, this modification does not create an unreviewed safety question.

CE-3542

Description

This exempt change installed a half coupling and plug to facilitate hydrostatic testing of a small section of backwash piping for RN Strainer 2A between valves 2RN-030A and 2RN-031. This small section of piping was replaced due to a leak.

Evaluation

The half coupling and plug are passive devices which have no interface with any component. Their presence does not significantly add to the normal pipe dynamic loads. The materials and design specifications are the same for the pipe as for the half coupling and plug. Transient pipe loads are not increased by the addition of these components. No new failure modes are created as a result of this installation. Therefore, this modification does not create an unreviewed safety question.

CE-3409

Description

This exempt change documents the installation of S/G tube plugs, stabilizers and sleeves for Unit 1 during the End Of Cycle (EOC) 5 refueling outage.

Evaluation

Adequate controls exist with installation procedures to ensure that the installation process for tube plugs, sleeves and stabilizers do not affect S/G material strength. The installation of the tube plugs, sleeves, and stabilizers do not degrade the primary boundary integrity and ensure compliance with Tech Specs for Reactor Coolant system leakage. All materials comply with Reactor Coolant and interconnected system requirements as specified in the FSAR. Therefore, this modification does not create an unreviewed safety question.

CE-3158

Description

This exempt change raised the low flow setpoint for miniflow initiation for the KC pumps.

Evaluation

The change in the setpoint was intended to increase the availability of the KC pumps during either normal operations or accident mitigation. The performance of the heat exchangers cooled by KC flow and compliance with applicable criteria are not adversely affected by this modification. No new failure modes were identified in the evaluation. Neither any fission product barrier nor any source term evaluation was affected by the modification. Therefore, this modification does not create an unreviewed safety question.

CE-3577

Description

This exempt change replaced valve 2RN-30A with a valve having item no. 05D-830 and revised affected documents.

Evaluation

The replacement of the valve does not degrade system operation. The replacement valve has the same pressure and temperature ratings as the existing valve. The new valve also meets the Duke Class QA condition requirements for this application. The new valve improves backflush flow which in turn improves the RN strainer backflush function. The new valve does not require additional stress analysis or piping/valve supports. Therefore, this modification does not create an unreviewed safety question.

CE-3558

Description

This exempt change replaced valve 2NI-471 with a valve having item no. 09J-356 and revised affected documents.

Evaluation

The function or operability of the NI system is not affected by the installation of the new valve. Engineering evaluated the design of the valve and determined it to be acceptable for this application in the NI system. The pressure, temperature ratings, and material of the valve meet the design conditions in this portion of the NI system. The

function of the valve will not be affected by this change and there are no seismic concerns. Therefore, this modification does not create an unreviewed safety question.

SUMMARY OF SELECTED LICENSEE COMMITMENTS RELATED 10 CFR 50.59 EVALUATIONS

SLC 16.9-4, Fire Hose Stations

Description:

Fire hose cabinet 1RF264 in the auxiliary building is relocated to allow unobstructed operation. This required SLC Table 16.9-2 to be revised. Relocation is required because hose cabinet is partially blocked by hangers and pipes such that the cabinet door could not be completely opened.

Evaluation:

The RF system will be able to perform as designed to provide water coverage. An interaction analysis was completed and no system or equipment was found to be adversely affected.

SLC 16.2, Applicability

Description:

These changes deleted old Section 16.2.3. They added wording which allows delaying remedial action requirements of a commitment for 24 hours to permit the completion of testing requirements when the allowable outage time limits of the remedial actions are less than 24 hours. They made several grammatical changes to ensure this section reflects the appropriate wording for the SLC manual.

Evaluation:

Old Section 16.2.3 does not apply to the SLCs. This only occurs under Section 3.0.3 in Technical Specifications. Added 24 hour delay to reflect the guidance given in Technical Specifications. Wording changes were made to ensure that the appropriate terminology applicable to the SLCs was used.

SLC 16.9-6, Fire Detection Instrumentation

Description

This change deleted the last sentence from testing requirements paragraph (a) because all flame detectors are accessible during plant operation. This change deleted the visual inspections of inaccessible smoke and heat detectors and changed the inaccessible detector trip actuating device operational test frequency to each refueling outage.

Evaluation

This change does not involve an unreviewed safety question. The standards of NFPA72E-1990 are applicable to all types of installations and this change will more reasonably tailor the requirements to a nuclear plant.

Selected Licensee Commitment 16.9.6, Revision

Description:

This SLC revision to the Fire Detection Instrumentation Testing Requirements involves changing the inaccessible detector trip actuating device operational test frequency to each refueling outage.

NFPA72E-1990 states smoke detectors shall be tested annually, but was written to cover all installations (Nuclear/Non-nuclear) and did not consider detectors located inside radiological areas. Under the current SLC, the reactor can run from one refueling outage to the next without testing, even if the period exceeds twelve months. Testing will be performed during each Cold Shutdown that exceeds 24 hours in duration, unless tested within the previous twelve months.

NFPA72E-1990 also states that one spot type restorable heat detector on each signal-initiating circuit shall be tested semi-annually, and within 5 years, all detectors on the circuit shall be tested.

Evaluation:

There is no technical basis for entering containment, just because the reactor has been at Cold Shutdown for more than 24 hours, to test smoke detectors. NFPA72E does not consider smoke detectors located inside radiological areas.

Due to normal fuel cycles and limited containment entries during plant operation, the semi-annual test frequency cannot be met. Testing of all inaccessible spot type restorable heat detectors during an 18 month fuel cycle will require each individual detector be tested 3 times in 5 years as opposed to the NFPA72E minimum of 1 time in 5 years. Reducing the frequency of entries will reduce personnel exposure to radiation.

SUMMARY OF COMPENSATORY ACTION RELATED 10 CFR 50.59 EVALUATIONS

Compensatory Action - Reactor Building Door Work in Modes 1-4

Description:

On rare occasions it may be necessary to violate reactor building integrity in modes 1-4 to perform maintenance or modifications to the various doors in the reactor building. A compensatory action was developed for this situation.

Evaluation:

The evaluation for this compensatory action addressed the impact on the annulus ventilation pressure boundary, auxiliary building ventilation pressure boundary, fuel handling ventilation pressure boundary, missile protection, and environmental protection for the containment vessel. Also, the impact on the fire barrier and security barrier capabilities of the reactor building were addressed.

Compensatory Action - Inoperable CA Flow Optimization Circuitry

Description:

These two 10 CFR 50.59 evaluations (one for Unit 1 and one for Unit 2) were developed for compensatory action for inoperable CA flow optimization circuitry. Under certain conditions the CA system may be inoperable due to a potential single failure affecting the flow optimization circuit. This circuit functions to isolate the B/C S/G motor isolation valve upon failure of the opposite train's pump to start if the CA turbine driven pump has started. A compensatory action was proposed which mimics the function of the flow optimization circuit.

Evaluation:

Implementation of this compensatory action ensures proper system operation in response to postulated CA failures. Operation of the CA system in accordance with this compensatory action ensures that all Technical Specifications are satisfied.

Compensatory Action - Operability Of Both Trains Of ECCS

Description

This compensatory action opened the breaker for 2ND-32A to allow a resistance measurement to be taken on the circuit for 2ND-32A.

Evaluation

The required positions (open or closed) for 2ND-32A during the cold leg injection

phase, cold leg recirculation phase and the hot leg recirculation phase of a LOCA were examined. It was concluded that the compensatory action for 2ND-32A would adequately allow both trains of ECCS to remain operable for all accident modes of operation.

Compensatory Action - Manual Operation Of 1VQ3B

Description

This compensatory action addressed the manual operation of 1VQ3B.

Evaluation

The operation of 1VQ3B in any manner is not an accident initiator as defined by Chapter 15 of the FSAR. Based on the conservatism's associated with source term timing and source composition, the low probability of a significant accident occurring while operating under this compensatory action, the low probability of a failure of offsite power coincident with a failure of DG 1A, the consequences of a LOCA are not increased significantly over those stated in the FSAR. An accident different from one already evaluated in the FSAR will not be created by operating 1VQ3B in this manner because its operation does not adversely affect any other equipment nor is it an accident initiator as described in the FSAR. The probability of a malfunction of equipment important to safety is not increased because 1VQ3B does not serve an equipment support function in any way nor does its operation in this manner affect the operation of any other equipment. The consequences of a malfunction of equipment important to safety will not be increased because of the compensatory measures put into place to offset the low probability of a failure of 1VQ2A. The operation of 1VQ3B in any manner does not affect operation of any other component nor do any measures put into place to allow the operation of the valve in this manner affect the operation of failure mode of any equipment. The margin of safety as defined in the Technical Specifications will not be decreased. There is no unreviewed safety question associated with this compensatory action.

Compensatory Action for 1ND-32A

Description:

This compensatory action compensates for the potential failure of 1ND-32A due to the discovery of an improperly sized overload in its motor control circuit. It requires an operator to be stationed outside of the ND Hx. Room 1A (location of 1ND-32A) with phone communication to the control room until the proper replacement is completed. If a LOCA occurs, the operator is to receive instructions from the control room to manually close 1ND-32A prior to entering the cold leg recirculation mode, coupled with action to placing ND Train 1A as inoperable for hot leg injection.

Evaluation:

The combination of operator compensatory measures and declaration of ND train 1A

inoperable will adequately allow one train of ECCS to remain operable for all accident modes of operation. Valve 1ND-32A is required closed during cold leg recirculation phase of a LOCA. The operator will accomplish this function. The valve must be open for when initiating hot leg injection. This function cannot be accomplished due to the radiation levels in the room, therefore ND train 1A will be inoperable for hot leg injection. The improperly sized overload on 1ND-32A does not increase the probability of an accident previously evaluated in the FSAR.

Compensatory Action for Manual Operation of 1VQ3B

Description:

Valve 1VQ3B serves to prevent the release of fission products from containment in the event of a LOCA or High Radiation signal inside containment.

Evaluation:

The operation of 1VQ3B is not an accident initiator, as defined by Chapter 15 of the FSAR. With 1VQ3B open and assuming a single failure of 1VQ2A (loss of power to operator), this comp action requires D/G 1A is operable and the switchyard is not degraded. Also, Catawba's Dose Analysis is based upon extremely conservative assumption that the majority of the fission products are released immediately at the start of the LOCA. Significant research to evaluate source term timing has been done and indicates that significant releases of activity will not occur until much later in the accident. Based on conservatism associated with source term timing and source composition, the low probability of a significant accident occurring while operating under this comp action, the low probability of a failure of offsite power coincident with a failure of D/G 1A, the consequences of a LOCA are not increased significantly over those stated in the FSAR.

Compensatory Action For 2ND-32A (1/28/92)

Description

This compensatory action removed power from 2ND-32A so that a resistance measurement could be taken on the breaker while maintaining both trains of ECCS operable.

Evaluation

The actions for the operator described in the compensatory action adequately allowed both trains of ECCS to remain operable for all accident modes of operation. Therefore, no unreviewed safety question exists.

SUMMARY OF SAFETY ANALYSIS CALCULATION CHANGE RELATED 10 CFR 50.59 EVALUATIONS

CNC-1552.08-00-0138: Earlier Hot Leg Recirculation Alignment Time

This evaluation concluded that an earlier required time to align for hot leg recirculation following a LOCA did not require any Technical Specification changes and did not result in an unreviewed safety question.

CNC-1552.08-00-0156: Revised T_{ave} Scaling

This evaluation concluded that the implementation of a revision in the method of averaging the hot leg RTD indications did not require any Technical Specification changes and did not result in an unreviewed safety question.

CNC-1552.08-00-0160: Unit 1 Cycle 7 Reload - Modes 5 & 6

This evaluation concluded that the reload core did not require any Technical Specification changes and did not result in an unreviewed safety question, prior to entering Modes 5 and 6.

CNC-1503.13-00-0411 REV. #1

The safety evaluation supports the operation of Catawba fully withdrawn RCCAs at or above 222 steps for all future cycles, except Catawba 2 Cycle 5. The Catawba 2 Cycle 5 fully withdrawn RCCAs will be operated at or above 226 steps. Since operating the fully withdrawn RCCAs between 222 and 230 steps is within the mechanical abilities of the system, there is no possibility of creating an accident relative to the mechanical abilities of the CRDM which are different than any already evaluated. In addition, there is no increase in the probability of a stuck or dropped RCCA incident because the CRDMs are fully functional throughout the additional red travel associated with the established withdrawal limits. The probability or consequences of the accidents involving loss of flow when the RCCAs are operating between 222 and 230 steps withdrawn are enveloped by existing analysis. There are no unreviewed safety questions as a result of this change.

Evaluation Of Catawba Unit 1 Cycle 6 Length Extension

This evaluation determined in the extension of the Catawba Unit 1, Cycle 6 core design to a maximum of 375 effective full power days involves any unreviewed safety questions. Extension of the cycle length does not alter the potential failure mechanisms or their probabilities of occurring. The radiological consequences of the original analyses remain valid for this modification. The operation of the reactor system will be unaffected by this modification. No new failure modes are created. No equipment important to safety will be affected by the modification. Plant safety limits, set points, and technical specifications will be unaffected. This modification involves no unreviewed safety questions.

CNC-1553.05-00-0147: Evaluation of Catawba 1 Cycle 7 SNACORE/MONITOR Update

This change updated the input to computer software used for core power distribution monitoring. These computer codes assist the reactor engineer in evaluating Technical Specifications 3/4.2.2 & 3/4.2.3 and have no effect on the initiation of postulated accidents. The computer code calculations are consistent with the applicable Technical Specifications, thus the consequences of the original analysis remain valid for this modification. No new failure modes will be created. No equipment important to safety will be affected by the modification. The modification does not reduce the margin to safety on any plant safety limits, setpoints or LCO affected by the applicable Technical Specifications. This modification involves no unreviewed safety questions.

COM-0204.C6-10-0197: Evaluation of DETECTOR, Version 3

This evaluation concerns the updating of the DETECTOR code which is used for core power distribution monitoring. Use of this software does not effect the initiation of the postulated accidents. This software does not affect any postulated accidents, so the radiological consequences described in the FSAR remain bounded. No new failure modes will be created by this modification. No equipment important to safety will be affected by this modification. Plant safety limits, setpoints or core parameters are unaffected. This modification involves no unreviewed safety questions.

COM-0204.C6-10-0187: Evaluation of DUKE-MONITOR, Version 2

This evaluation concerns the updating of the DUKE-MONITOR code which is used for core power distribution monitoring. Use of this software does not effect the initiation of the postulated accidents. Since the modification is consistent with all the applicable technical specifications, the radiological consequences described in the FSAR remain bounded. No new failure modes will be created by this modification. No equipment important to safety will be affected by this modification. This modification does not reduce the margin to safety on any plant safety limits, setpoints or LCO affected by

these technical specifications. This modification involves no unreviewed safety questions.

SUMMARY OF TEMPORARY STATION MODIFICATION RELATED 10 CFR 50.59 EVALUATIONS

TSM 5043 MES

Description:

This TSM prevented the auto-swap of the RN pumps from the lake to the SNSWP on a lo-lo level in pit A. The purpose was to allow the draining of pit A without automatically closing the cross-connect valves 1(2)RN48B. The pit was drained in order to allow work on hangers that would be submerged to support removing RN pump 2A and motor.

Evaluation:

Due to the TSM, 1RN48B remained open, allowing B Train RN to supply the Unit 1 and Unit 2 A Train essential and non-essential headers, and the additional B Train RN pump was also prevented from auto-starting. 2RN48B was tagged closed to ensure complete separation in the event of a Unit 2 Sp signal and also to comply with the three operable RN pumps alignment with one unit (Unit 2) entering an action statement once the modification was removed. Once the trains were separated, the B Train RN pumps supplied sufficient flow to all required loads on each unit. If Unit 1 had received a Ss signal, again all required loads on both units would have been supplied. RN was swapped to the SNSWP prior to the installation of this TSM.

Temporary Station Modification Allowing RN Pump Removal/Installation

Description:

This temporary station modification prevents receiving a RN Pit B Lo-Lo Level Auto-swap to the Nuclear Service Water Pond (NSWP) while draining the pit for the removal/installation of the respective RN Pump by the installation of jumpers.

Evaluation:

The installation of the jumpers defeats the auto-swap function for all RN Train B pumps. With Unit 2 in no mode and unit 1 in mode 1, an SP signal on unit 1 will isolate B train essential headers from A train. This will allow the A train RN pumps to only supply the A train essential headers and the unit 2 non-essential header. This is within the pump's flow capacity. Also, with an SS signal on unit 1, there is sufficient pump capacity to supply all valved-in loads.

Temporary Station Modification Installing A Gag On 1CA-152

Description:

This TSM provided guidance for gagging closed 1CA-152 during repair of the Miller air cylinder (air leak) and removal of the gag following repair of the cylinder. This was required for personnel safety performing the repair.

Evaluation:

The evaluation initially stated that since the valve was maintained in the fail-safe position, no unreviewed safety question existed. The NSRB characterized the evaluation as inadequate, in that it did not address how the valve or piping could respond to a seismic event, and was returned to the initial evaluator. By the time it was received by the initial evaluator, the TSM had been removed. The Evaluator stated however, that the gag did not impose loads outside those of the actuator.

Temporary Station Modification (TSM) Work Request #91036013

Description

This TSM defeats the auto closure capability on an Sp signal or an S/I with a Low-Low FWST signal for valves 1KC-3A, 1KC-18B, 1KC-228B, and 1KC-230A.

Description

This TSM does not have an adverse impact on the flow and heat removal capacity of either any loads normally aligned to the on-line KC train or any loads aligned to the on-line KC train as a result of carrying out this TSM. This TSM was reviewed and approved by Engineering. Engineering calculations indicate that the flow required in the worst case scenario is well within the capacity of the two KC pumps that will be inservice. There are no new failure modes identified with this TSM. Upon removal of the TSM, all affected components will be tested to ensure operability. Therefore, no unreviewed safety question was created by this TSM.

Temporary Station Modification (TSM) Work Request #0442PJT

Description

This TSM bypasses the interlocks on ABFXF-2B and ABUXF-2B so that the ABRsUs can continue to operate.

Evaluation

No credit is taken for the VA system in the accident analysis. The VA system is not an accident initiator. This TSM does not affect the ESF features of the VA system. The margin of safety as defined in any Technical Specification is not reduced and no new

failure modes are introduced. The VA system will be considered operable during the implementation of this TSM. Therefore, no unreviewed safety question was created by this TSM.

Temporary Station Modification (TSM) Work Request #0441PJT

Description

This TSM bypasses the interlocks on ABFXF-1B and ABUXF-1B so that the ABRsUs can continue to operate.

Evaluation

No credit is taken for the VA system in the accident analysis. The VA system is not an accident initiator. This TSM does not affect the ESF features of the VA system. The margin of safety as defined in any Technical Specification is not reduced and no new failure modes are introduced. The VA system will be considered operable during the implementation of this TSM. Therefore, no unreviewed safety question was created by this TSM.

Temporary Station Modification (TSM) Work Request #0440PJT

Description

This TSM bypasses the interlocks on ABFXF-2A and ABUXF-2A so that the ABRsUs can continue to operate.

Evaluation

No credit is taken for the VA system in the accident analysis. The VA system is not an accident initiator. This TSM does not affect the ESF features of the VA system. The margin of safety as defined in any Technical Specification is not reduced and no new failure modes are introduced. The VA system will be considered operable during the implementation of this TSM. Therefore, no unreviewed safety question was created by this TSM.

Temporary Station Modification (TSM) Work Request #0437PJT

Description

This TSM bypasses the interlocks on ABFXF-1A and ABUXF-1A so that the ABRsUs can continue to operate.

Evaluation

No credit is taken for the VA system in the accident analysis. The VA system is not an accident initiator. This TSM does not affect the ESF features of the VA system. The margin of safety as defined in any Technical Specification is not reduced and no new failure modes are introduced. The VA system will be considered operable during the implementation of this TSM. Therefore, no unreviewed safety question was created by this TSM.