



TU ELECTRIC

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March 26, 1993

William J. Cahill, Jr.
Group Vice President

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES) - UNIT 1
DOCKET NO. 50-445
ANNUAL 10CFR50.59 REPORT

Gentlemen:

Attached is the Annual Report required by 10CFR50.59(b)(2) for 1992. This report contains descriptions of the activities completed at CPSES Unit 1 under the provisions of 10CFR50.59(a), including a summary of the Safety Evaluation of each. Items in this report are referenced by their 50.59 Safety Evaluation numbers. This report covers the period from December 31, 1991 through December 31, 1992.

If you have any questions, please contact Mr. Roy Cisneros at (214) 812-8814.

Sincerely,

William J. Cahill, Jr.

William J. Cahill, Jr.

By: *Roger D. Walker*

Roger D. Walker
Manager of Regulatory
Affairs for NEO

RC/rc
Attachment

c - Mr. J. L. Milhoan, Region IV
Resident Inspectors, CPSES (2)
Mr. T. A. Bergman, NRR
Mr. A. B. Beach, Region IV

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COMANCHE PEAK STEAM ELECTRIC STATION

ANNUAL 10CFR50.59 REPORT
1992

TEXAS UTILITIES ELECTRIC COMPANY

COMANCHE PEAK UNIT 1
ANNUAL 10CFR50.59 REPORT

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Evaluation Number
SE-90-021

Activity Title:

Design Modification of Floor Drain Tank Filter, Liquid Waste Processing System (DM 89-389, LDCRs SA-90-021 & 150)

Description of Change(s):

The Floor Drain Tank Filter housing will be replaced with a new housing that accommodates a larger filter area but continues to meet existing design filtration parameters (replacement is scheduled for the first Unit 1 refueling outage). This modification is being performed to alleviate system fouling. Prior to housing replacement, the existing filter cartridge element will be removed rendering the filter ineffective. Floor Drain Tank effluents may be routed/processed through other tanks/filters in the Liquid Waste Processing System.

Summary of Evaluation:

This modification does not affect any of the accident analyses presented in Chapter 15 of the CPSES FSAR. Since Phase I of the modification (filter element removal) does not affect the floor drain filter pressure boundary (only the filter cartridge) and the filtration threshold does not limit the transport of radionuclides or contaminated particles but, by design, is meant to limit transport of suspended solids to the waste evaporator, the effects of modification to the filter cartridge will not alter the effects of post-LOCA radiological release or transport through the floor drain system. Phase II of this Design Modification (housing and filter replacement) will return the subject tank filter/filter housing to original design requirements. LDCRs SA-90-021 and SA-90-150 respectively contain the revisions required to FSAR Table 11.2-3 Sh 25 to reflect the changes implemented by Phases I and II. No safety related systems or systems important to safety will be affected, and the activity will not affect the probability of system failure or present any new failure modes for the system. There are no Technical Specifications associated with the Liquid Waste Processing System that would be affected.

Evaluation Number
SE-91-020

Activity Title:

Retermination of Unit 2 Cables at Common 480V Class 1E MCCs XEB1-1 and XEB1-2 (DM 91-009 R.O., LDCR SA-91-042)

Description of Change(s):

Prior to the startup of Unit 1, the Unit 2 cables E0231677 and E0231678 were determined from the common 480V Class 1E MCCs to provide electrical isolation between the two Units in order to ensure safe operation and safe shutdown of Unit 1. The above activity (DM 91-009 R.O.) involves reconnecting these cables to the respective MCCs XEB1-2 and XEB1-1 to provide Control Room indication at Status Light Panel X-CV-12 of auto-transfer switch position (Unit 1 or Unit 2).

Summary of Evaluation:

The reconnection of the above described Unit 2 indicating light circuits to the common 480V Class 1E MCCs XEB1-2 and XEB1-1 will not have any adverse effect on the operation of Unit 1/common devices and will not introduce any credible failure mode due to the following:

- 1) The voltage drops in these circuits have been calculated and will not interfere with positive indicating light performance when Unit 2 is supplying power to the MCCs.
- 2) The indicating light circuits are properly isolated by fuses on the primary and secondary side of the 480/120 volt transformers supplying power to the indicating lights. This ensures that a fault in these circuits will not impact the other loads on the MCCs.
- 3) The cables in these circuits are properly routed in Unit 2 raceways and are not required for safe shutdown. System interaction is therefore not a concern.
- 4) The cables associated with the added circuits are appropriately accounted for in the Unit 1 and common area combustible load calculations and are not required for fire safe shutdown.

It should also be noted that the additional load associated with the indicating lights is negligible compared to the total load on the MCCs, and is only energized when the MCCs are being powered from either Unit 1 or Unit 2 source; there is no impact on the Unit 1 emergency power load profiles or feeder breaker capacities associated with these two MCCs.

Evaluation Number
SE-91-062
Revision 4

Activity Title:

Radioactive Material Handling and Staging and Radioactive Waste
Storage in Areas Outside the Plant

Description of Change(s):

Due to insufficient space inside the plant, designated areas outside the plant are required for radioactive material handling and staging, storage of radioactive material and storage of radioactive waste prior to shipment. The fenced area east of the Fuel Building will be used for radioactive material handling and staging. Warehouse C and the fenced area immediately north of the warehouse will be used for radioactive material and radwaste storage.

Summary of Evaluation:

It is concluded that this activity does not affect safety related structures, systems, components, and/or system parameters. The radiological consequences of dropping a container loaded with high activity resins and a mishap involving Dry Active Waste were evaluated. Additionally, the potential for creation of tornado generated missiles resulting from outdoor storage containers was evaluated. The evaluation concludes that there is no unreviewed safety question.

Evaluation Number
SE-91-074

Activity Title:

Installation of Blank Flange at Containment Hydrogen Purge System Penetrations

Description of Change(s):

This temporary modification provides for the installation of a blank flange, if necessary, on Containment isolation valves CP1-VADPBC-01, -02, -03, -04, -20, and/or -19. This change was required to bring these penetrations in compliance with Technical Specification 3/4.6.1.7.

Summary of Evaluation:

The potential failure modes of the containment penetrations involving pressure retention, structural and seismic considerations have been analyzed. Results indicate that the temporary modification is acceptable, and that these failure modes will not affect the structure, system, or components involved.

The twelve-inch Containment penetrations are required to remain intact and prevent leakage in excess of the LLRT acceptance criteria. During modes 1, 2, 3, & 4, the twelve-inch valves are required to be locked closed. The temporary modification will not affect the required valve position and will provide additional assurance that the penetration is in compliance with Technical Specification 3/4.6.1.7 and is consistent with Technical Specification Interpretation No 14, Rev. 1. The installation of a passive device such as a blind flange cannot contribute to or affect the failure mode of the Containment isolation valves in any manner except seismically, due to the weight of the flange. This factor is ruled out by an engineering evaluation of the seismic aspects of the blind flange installation. With any of the blind flanges in place, all stresses for the penetrations and valves are within the requirements of seismic considerations.

Evaluation Number
SE-91-083

Activity Title:

DM 89-303; Addition of Thermal Relief Valves to Valve Bonnets of Containment Emergency Sump Valves to Prevent Pressure Locking

Description of Change(s):

Adds thermal relief valves to valve bonnets of Containment Emergency Sump isolation valves to prevent pressure locking per DM 89-303, Rev. 1 and FSAR LDCR SA-91-098. This modification applies to valves in Containment Spray (1HV-4782, 1HV-4783) and in Emergency Core Cooling (ECCS) (1-8811 A & B) systems, and includes the addition of a bonnet pressure relief valve and associated piping. The relief valve and piping are to be installed within the pressure boundary of the gate valve.

Summary of Evaluation:

The modification (DM 89-303, Rev.1) to Containment isolation valves 1HV-4782, 1HV-4783, 1-8811A and 1-8811B satisfies all applicable safety related requirements including Containment isolation, ASME Section III, and seismic qualification. The reliability of the ECCS and Containment Spray System is enhanced by this change, increasing the margin of safety. The Design Modification, as expressed in LDCR SA-91-098, does not involve an Unreviewed Safety Question.

Evaluation Number
SE-91-087

Activity Title:

Retermination of Unit 2 Cables at Common 480V Class 1E and Common Non-Class 1E MCCs (DM 91-017 R.O. LDCR SA-91-042)

Description of Change(s):

Prior to the startup of Unit 1, Unit 2 cables identified below were determined from their respective common 480V Class 1E and Non-1E MCCs to provide electrical isolation and separation between the two Units in order to ensure safe operation of Unit 1.

The above activity (DM 91-017 R.O) involves reconnecting these cables identified below:

(1) The following Unit 2 cables are being reconnected to restore the Unit 2 power supply to the indicated MCCs: Cables EG200196A and B to MCC XEB2-2, E0200161A and B to MCC XEB1-1, EG200197A and B to MCC XEB2-1, E0200227A and B to MCC XEB3-2, EG200387A and B to MCC XEB4-2, E0200169A and B to MCC XEB1-2, A0200653 to Non-1E MCC XEB3-3 and AG200706 to Non-1E MCC XEB4-3.

(2) Cables EG021910M, EG021917M and EG021939M are being reterminated to provide "Load shedding complete" indication (during a safety injection) at Unit 2 monitor light box (MLB) 9 and 10 for the six common 480V 1E MCCs listed above.

(3) Cables EG021962M, E0021968M, E0021969M are being reterminated to provide a safety injection trip signal to the Unit 2 feeder breakers for 480V Non-1E MCCs XEB1-3, XEB3-1 and XEB4-1.

(4) Cables A0206194A and AG206196A are being reterminated to provide a Unit 2 undervoltage trip signal to the Unit 2 feeder breakers for 480V Non-1E MCCs XEB3-3 and XEB4-3.

Summary of Evaluation:

The reconnections of the Unit 2 cables described above do not constitute an unreviewed safety question for Unit 1 due to the following:

1) Power to the MCCs is controlled by an automatic transfer switch which is electrically interlocked to preclude supplying power from both Units simultaneously or inadvertently paralleling power supplies. Control Room indication of the Unit supplying the power is available to the operators.

2) The Unit 2 power supply cables are properly sized to maintain adequate voltage at the bus for all connected loads.

3) The maximum calculated short circuit current due to addition of the power supply cables is below the MCCs' short circuit current rating. Connection of the auxiliary relay contacts to the MLBs, safety injection signal and undervoltage signal trip circuits adds no

Evaluation Number
SE-91-087

new energy source so the short circuit current remains unchanged.

4) The power supply cables are connected through 1200 amp and 800 amp air circuit breakers (150 amp for the Non-1E feeder cables) which provide adequate cable and circuit protection. The MLB cables are provided with 6 amp fuses which provide adequate cable and circuit protection for these control circuits. The auxiliary contact ratings for the safety injection, undervoltage trip and MLB circuits are above the maximum credible voltage available in these circuits and these circuits have protection devices which will interrupt faults in these circuits and preclude fault propagation to Unit 1.

5) The cables discussed above are run in seismically supported raceways and meet the applicable separation requirements. Cables EG200196A and B, EG200197A and B, E0200161A and B, E0200169A and B are included in the Unit 1/2 Pipe Break Safe Shutdown analysis and these cables will be protected from adverse effects due to pipe breaks.

6) These panels were included in the Unit 1 fire safe shutdown analysis and this analysis is not affected by reconnection of the Unit 2 cables.

7) The Unit 2 power supply cables were run prior to operation of Unit 1 and were already included in the Unit 1 and common area combustible load calculations.

Evaluation Number
SE-91-089

Activity Title:

Temporary Installation of a Test Blind Flange at the 48" Containment Isolation Valves to Confirm Compliance with T/S 3/4.6.1.7

Description of Change(s):

A test blind flange was installed to individually leak rate test the valves in Containment penetrations MV-1 and MV-2. Subsequent to the test a flange remained in place, downstream of CIV HV-5536 and outside Containment Air supply penetration, although it was not required since the test provided acceptable results.

The test methodology used for determining leakage rates has been changed by this temporary modification to comply with the corrective actions described in LER 90-024 submitted in TU Electric letter logged TXX-90311 on September 24, 1990. Previously, the Containment isolation valves were tested simultaneously and the leakage rate reported was the total leakage rate measured. This change assesses which valve in each penetration has the highest leakage rate with stem leakage properly considered to confirm that the penetration is in compliance with Technical Specification 3/4.6.1.7.

Summary of Evaluation:

The failure modes of the Containment ventilation penetrations is unaffected by the addition of the blind flange at the penetration. The installation of a passive device such as a blind flange cannot contribute to or affect the failure mode of the Containment isolation valves in any manner except due to the weight of the flange with respect to a seismic event. This installation has been analyzed for pressure retention, structural and seismic considerations and was determined to be acceptable. With the blind flange in place, all stresses for the penetration and valves are within FSAR and Code allowables.

Since the valve is already locked closed in its safe position, it does not have an active function. The safety function is simply to prevent excess leakage through the penetration when both valves are locked closed. Therefore, leaving a flange in place provides an additional boundary. Since there is no credible event that a blind flange can initiate, there is no increase in probability of occurrence.

Evaluation Number
SE-91-092

Activity Title:

Retermination of Unit 2 Cables at Common 480V Class 1E MCC XEB3-2
(DM 91-010 R.O, LDCR SA-91-042)

Description of Change(s):

Prior to the startup of Unit 1, the Unit 2 cable E0231676 was determined from the common 480V Class 1E MCC to provide electrical isolation between the two Units in order to ensure safe operation and safe shutdown of Unit 1. The above activity (DM 91-010 R.O) involves reconnecting this cable to the MCC to provide Control Room indication at Status Light Panel X-CV-12 of auto-transfer switch position (Unit 1 or Unit 2).

Summary of Evaluation:

The reconnection of the above described Unit 2 indicating light circuit to the common 480V Class 1E MCC XEB3-2 will not have any adverse effect on the operation of Unit 1/common devices and will not introduce any credible failure mode due to the following:

- 1) The voltage drop in this circuit has been calculated and will not interfere with positive indicating light performance when Unit 2 is supplying power to the MCC.
- 2) The indicating light circuit is properly isolated by fuses on the primary and secondary side of the 480/120 volt transformer supplying power to the indicating light. This ensures that a fault in this circuit will not impact the other loads on the MCC.
- 3) The cables in this circuit are properly routed in Unit 2 raceways and are not required for safe shutdown. System interaction is therefore not a concern.
- 4) The cables associated with the added circuit are appropriately accounted for in the Unit 1 and common area combustible load calculations and are not required for fire safe shutdown.

It should also be noted that the additional load associated with the indicating light is negligible compared to the total load on the MCC, and is only energized when the MCC is being powered from either Unit 1 or Unit 2 source; there is no impact on the Unit 1 emergency power load profiles or feeder breaker capacity of the MCC.

Evaluation Number
SE-91-096
Revision 1

Activity Title:

Revise Design Basis for Internal Conduit Fire Seal Requirements
(LDCRs FP-91-002, SA-91-112)

Description of Change(s):

This activity revises the design basis for internal conduit fire seals for conduits less than or equal to four (4) inches in diameter. This involves updating the Fire Protection Report (FPR) Sections II-6.2.6 and VB and FSAR Section 9.5.1.6.1.D.3.d.

The design basis for conduits less than or equal to four (4) inches in diameter required automatically actuated fire suppression and detection coverage on both sides of a fire barrier when seals are installed at the first conduit opening on either side (not both) of the barrier. The revision of the design basis allows crediting either automatic or manually actuated suppression system coverage and detection coverage on both sides of a fire barrier when sealing conduits at the first opening on either side (not both) of the barrier for Unit 2 areas.

The revised design basis also incorporates provisions for utilizing results of the "Conduit Fire Protection Research Program" to perform engineering evaluations in accordance with NRC Generic Letter 86-10 (to demonstrate that internal conduits are not required for specific conduit configurations in complying with BTP 9.5-1 Appendix A) for Units 1 and 2.

Summary of Evaluation:

Based on the equivalency of the fire protection features provided for the hazards embodied by the switchgear rooms under postulated fire scenarios, no decrease in the level of fire protection for Unit 2 will result from the revised design basis for conduits less than or equal to four (4) inches. This level of protection is adequate for the inherent fire hazards of the switchgear rooms (i.e., exposed IEEE-383 cabling) which would result in a slowly developing fire.

Since the "Conduit Fire Protection Research Program" used actual fire testing to substantiate its conclusions, incorporation of these results into the CPSES design basis for internal conduit fire seals meets the regulatory guidance. The NRC's Safety Evaluation Report on the "Conduit Fire Protection Research Program" provided concurrence with the conclusions of the study. Therefore, sufficient regulatory acceptance of the study justifies the incorporation of the study into the CPSES design basis.

The implementation of the revised design basis for internal conduit fire seals for conduits less than or equal to four (4) inches does not increase the probability of any accidents evaluated in the licensing basis, does not create any new type of accident, nor does it have any impact on the radiological consequences of the accidents evaluated for the licensing basis.

Evaluation Number
SE-91-099

Activity Title:

Retermination of Unit 2 Cables at Common Class 1E 118V AC Distribution Panels XEC1-1 and XEC2-1 (DM 91-006 R.O, LDCR SA-91-042)

Description of Change(s):

Prior to the startup of Unit 1, the Unit 2 power supply cables E0205624 and EG205704 were determined respectively from the common Class 1E 118V AC distribution panels XEC1-1 and XEC2-1 to provide electrical isolation between the two Units in order to ensure the safe operation and safe shutdown of Unit 1. The above activity (DM-91-006 R.O) involves reconnecting these cables to the distribution panels to restore Unit 2 power supplies to the panels.

Summary of Evaluation:

The reconnection of the above described Unit 2 power supply cables to the common Class 1E 118V AC distribution panels XEC1-1 and XEC2-1 does not introduce any additional credible potential failure modes due to the following:

- 1) Power to the panels is controlled by a manual transfer switch which is mechanically interlocked to preclude supplying power from both Units simultaneously or inadvertently paralleling power supplies. Control Room indication of the Unit supplying the power is available to the operators.
- 2) The Unit 2 cables are properly sized to maintain adequate voltage at the bus for all connected loads.
- 3) The maximum calculated short circuit current due to this activity is below the short circuit rating for the panels and the power supply cables are connected through 60A circuit breakers to ensure that a fault in Unit 2 will not propagate to Unit 1.
- 4) The Unit 2 cables were properly considered in the system interaction program in order to ensure that no adverse interactions exist.
- 5) The cables meet the flame test requirements of IEEE 383. These cables are properly accounted in the Unit 1 and common area combustible load calculations and are not required for the fire safe shutdown. In addition the routings of the Unit 2 power supply cables meet the requirements for cable separation.

Evaluation Number
SE-91-100

Activity Title:

Retermination of Unit 2 Cables at Common 480V Class 1E MCCs XEB2-2 and XEB2-1 (DM 91-012 R.O, LDCR SA-91-042)

Description of Change(s):

Prior to the startup of Unit 1, the Unit 2 cables EG231683 and EG231684 were determined from the common 480V Class 1E MCCs to provide electrical isolation between the two Units in order to ensure the safe operation and safe shutdown of Unit 1. The above activity (DM 91-012 R.O) involves reconnecting these cables to the respective MCCs XEB2-2 and XEB2-1 to provide indication in the Control Room at Status Light Panel X-CV-12 of auto-transfer switch position (Unit 1 or Unit 2).

Summary of Evaluation:

The reconnection of the above described Unit 2 indicating light circuits to the common 480V Class 1E MCCs XEB2-2 and XEB2-1 will not have any adverse effect on the operation of Unit 1/common devices and will not introduce any credible failure mode due to the following:

- 1) The voltage drop in these circuits have been calculated and will not interfere with the indicating light performance when Unit 2 is supplying power to these MCCs.
- 2) The indicating light circuits are properly isolated by fuses on the primary and secondary side of the 480/120 volt transformers supplying power to the indicating lights. This ensures that a fault in these circuits will not impact the other loads on the MCCs.
- 3) The cables in these circuits are properly routed in Unit 2 raceways and are not required for safe shutdown. System interaction is therefore not a concern.
- 4) The cables associated with the added circuits are appropriately accounted for in the Unit 1 and common area combustible load calculations and are not required for fire safe shutdown.

It should also be noted that the additional load associated with the indicating lights is negligible compared to the total load on the MCCs, and is only energized when the MCCs are being powered from either Unit 1 or Unit 2 source; there is no impact on the Unit 1 emergency power load profiles or feeder breaker capacities associated with these two MCCs.

Evaluation Number
SE-91-105

Activity Title:

DM 90-356; Provide Temperature Monitor and Annunciator for the Rod Control Cabinets' Ventilation Equipment (LDCR 91-133)

Description of Change(s):

A temperature monitor and annunciator is installed in the forced ventilation system for the Rod Control cabinets.

Summary of Evaluation:

In order to preclude equipment damage to the Rod Control circuitry, a temperature monitor and associated annunciator is installed in the forced air ventilation system for the Rod Control cabinets. The installation affects the Rod Control cabinet (7BK-CPELFL-01) and an annunciator lamp cabinet (1-ALB-11B, window 1-12). The change does not affect the operation of the Rod Control circuitry, and only solicits operator action in case of the loss of forced air ventilation to the cabinet.

The Safety Evaluation reviewed the accidents of FSAR Section 15.4.1; "Uncontrolled Rod Cluster Control Assembly Bank Withdrawn from a Subcritical or Low Power Startup Condition," 15.4.2; "Uncontrolled Rod Cluster Control Bank Assembly Bank Withdrawn at Power," and 15.4.3; "Rod Cluster Control Assembly Misalignment" in order to determine the effect of the modification on the accident analysis.

The Safety Evaluation determined that, since the modification does not introduce any credible potential failures or malfunctions which would result in a loss of safety function, the radiological consequences of the above accidents are not affected. The temperature monitor and annunciator do not introduce any credible potential failure modes or malfunctions into the Rod Control cabinets and thus do not increase the probability of the licensing basis accidents reviewed by the Safety Evaluation. Additionally since no new credible potential failures are introduced the possibility of a new and unanalyzed accident is not increased. The modification does not affect the Rod Control parameters or the Technical Specifications and thus the margin of safety is not affected.

In summary, the temperature monitor and annunciator do not increase the probability of any accident evaluated in the licensing basis, do not create any new type of accident, nor do they any impact on the radiological consequences of the accidents evaluated for the licensing basis. The addition of a temperature monitor and annunciator is then considered a minor change that does not have a direct impact on the operation of the plant.

Evaluation Number
SE-91-107
Revision 1

Activity Title:

Increase of the Upper Lithium Limit in the RCS to Reduce Corrosion and Achieve Lower Radiation Fields (LDCR SA-91-134)

Description of Change(s):

The upper limit of the pH control band, listed in FSAR Table 5.2-5, was revised to indicate an operating range at constant Lithium concentration of 2.2 plus or minus 0.15 ppm with boron concentrations up to 1500 ppm. Lithium is added to the Reactor Coolant system for pH control as boric acid concentration is changed for reactivity control. Primary coolant pH influences corrosion product release, transport, activation and deposition on out-of-core surfaces. Industry experience indicates that lower radiation fields can be achieved with end-of cycle pH in the 7.1-7.4 pH range (generally lower fields than with a pH 6.9). This modified program of the pH control is denoted as principle 3 in EPRI NP-7077, PWR Primary Water Chemistry Guidelines, Revision 2.

Summary of Evaluation:

Increased values of Lithium in the Reactor Coolant system could not affect the radiological consequences of equipment malfunctions because Lithium hydroxide introduced into the Reactor Coolant is in the form of Li-7 which can not be activated in the core.

Test data on Alloy 600 reverse U-bend specimens does not indicate that operation with Lithium at a maximum of 2.35 ppm would decrease the time to initiation of Primary Water Stress Corrosion Cracking. No exacerbation of the corrosion rate of the fuel cladding can be attributed to elevated Lithium operation based on studies conducted.

There is no indication that increasing the Lithium concentration to a maximum of 2.35 ppm will increase the probability of corrosion for systems in contact with Reactor Coolant.

The modified lithium/boron correlation includes boron concentration up to 1500 ppm. At elevated boron concentrations RCS pH can be maintained to a minimum value of 6.9.

Evaluation Number
SE-91-108

Activity Title:

DM 91-004; Addition of Sample Sinks & Related Tubing, Valves, Fittings etc. for Improved Sampling Capability (LDCR SA-91-131)

Description of Change(s):

The present plant design has sample valves at various tanks, but there is no way to control the sample or spills. This design modification adds sinks, tubing and valves to control the sample as well as demineralized water for flushing and piping to the floor drain system.

Summary of Evaluation:

Implementation of this activity does not involve an Unreviewed Safety Question. There are no credible failure modes introduced by the implementation of this design modification. Implementation of this activity will not affect the probability of failure of any structure, system or component from performing its intended safety function because all added tubing, valves and fittings are downstream of a normally closed valve (non-safety) or added to a non-safety related system such as demineralized water.

Evaluation Number
SE-91-112

Activity Title:

LDCR SA-92-673; Clarification of Instrument Air Quality Requirements

Description of Change(s):

The design criteria in the FSAR for air quality requirements are clarified in terms of air supplied to the system and air supplied at the individual downstream components. The current FSAR commitment states that instrument air is to be "cleaned free of particulate greater than one micron." This statement can be erroneously interpreted to mean that at any point in the system, any particulate that may be present will be of one micron or smaller.

Given the extensive layout of the instrument air system and the presence of small amounts of corrosion products, air with any particulate of one micron or smaller cannot be consistently attained and is, in fact, not necessary. Manufacturers of downstream instrument air components typically recommend a particulate criteria of 40 microns with a few specifying smaller values in the 10 micron range. Additional filtration is available (or can be installed if necessary) for those components having more restrictive air quality requirements. This change clarifies that instrument air supplied to the system (i.e., at the outlet of the dryers) will nominally meet the one micron criteria by utilizing currently installed one micron filters having efficiencies of 98% or greater. In addition, the quality of air supplied at the component instruments will meet the air quality criteria as set by component manufacturer recommendations.

Summary of Evaluation:

This change, in addition to the other system design requirements, allows for compliance with the intent of the ANSI/ISA 57.3 for maintaining instrument air cleanliness for reliable system operation. Implementation of this change will have no impact on any structure, system, or parameter since there is no physical, functional, or operational change. This change will not impact the accidents analyzed and there is no unreviewed safety question.

Evaluation Number
SE-91-116

Activity Title:

Retermination of Unit 2 Cable at Common 480V Class 1E MCC XEB4-2
(DM 91-013 R.O, LDCR SA-91-042)

Description of Change(s):

Prior to the startup of Unit 1, the Unit 2 interface cable EG231682A was determined from the common 480V Class 1E MCC to provide electrical isolation between the two Units in order to ensure safe operation and safe shutdown of Unit 1. The above activity (DM 91-013 R.O) involves reconnecting this cable to the MCC to provide Control Room indication at Status Light Panel X-CV-12 of auto-transfer switch position (Unit 1 or Unit 2).

Summary of Evaluation:

The reconnection of the above described Unit 2 indicating light circuit to the common 480V Class 1E MCC XEB4-2 will not have any adverse effect on the operation of Unit 1/common devices and will not introduce any credible failure mode due to the following.

- 1) The voltage drop in this circuit has been calculated and will not interfere with positive indicating light performance when Unit 2 is supplying power to the MCC.
- 2) The indicating light circuit is properly isolated by fuses on the primary and secondary side of the 480/120 volt transformer supplying power to the indicating light. This ensures that a fault in this circuit will not impact the other loads on the MCC.
- 3) The cables in this circuit are properly routed in Unit 2 raceways and are not required for safe shutdown. System interaction is therefore not a concern.
- 4) The cables associated with the added circuit are appropriately accounted for in the Unit 1 and common area combustible load calculations and are not required for fire safe shutdown.

It should also be noted that the additional load associated with the indicating light is negligible compared to the total load on the MCC, and is only energized when the MCC is being powered from either Unit 1 or Unit 2 source; there is no impact on the Unit 1 emergency power load profiles or feeder breaker capacity.

Evaluation Number
SE-91-117

Activity Title:

Retermination of Unit 2 Cables at XEC1-1 and X-CV-12 and Removal of Jumper at XEC1-1 (DM 91-014 R.O, LDCR SA-91-042)

Description of Change(s):

Prior to the startup of Unit 1, the Unit 2 cables E0021932M and E0231688 were determined respectively from XEC1-1 and X-CV-12 and a jumper was added across breaker auxiliary switch contact 52a in the common 118V AC Class 1E distribution panel XEC1-1 to provide electrical isolation between the two Units in order to ensure safe operation of Unit 1. The above activity (DM 91-014 R.O) involves reconnecting these cables to the distribution panel and status light panel to provide Control Room indication at status light panel X-CV-12 to indicate manual transfer switch position (Unit 1 or Unit 2) as well as removing the jumper from the auxiliary contacts of the branch feeder breaker in the distribution panel to provide indication at the Unit 2 Safety System Inoperable Indication (SSII) panel.

Summary of Evaluation:

The reconnection of the above described Unit 2 indicating light circuit to the common 118V AC Class 1E distribution panel XEC1-1 and status light panel X-CV-12 and removal of the above described jumper do not constitute an unreviewed safety question for Unit 1 due to the following:

- 1) The voltage drop in this circuit has been calculated and will not interfere with the indicating light performance when Unit 2 is supplying power to the panel.
- 2) The indicating light and SSII circuit auxiliary contacts are able to withstand the maximum credible voltages available in the status light circuits and the circuits are provided with protection devices to ensure there are no uncleared faults. Also this will ensure that a fault in one of these circuits will not impact Unit 1 loads or power supplies.
- 3) The cables in this circuit are properly routed in Unit 2 raceways and are not required for safe shutdown. System interaction is therefore not a concern.
- 4) The cables associated with the added circuit are appropriately accounted for in the Unit 1 and common area combustible load calculations and are not required for fire safe shutdown.

It should also be noted that the additional load associated with the indicating lights is negligible compared to the total load on the panel, and is only energized when the panel is being powered from either Unit 1 or Unit 2 source; the SSII indicating lights operate only when the breaker is open. As a result there is no impact on the Unit 1 emergency power load profiles or capacity of the feeder breaker of the panel.

Evaluation Number
SE-91-118

Activity Title:

Retermination of Unit 2 Cables at XEC2-1 and X-CV-12 and Removal of Jumper at XEC2-1 (DM 91-015 R.O, LDCR SA-91-042)

Description of Change(s):

Prior to the startup of Unit 1, the Unit 2 interface cables EG021933M and EG231689 were determinated respectively from XEC2-1 and X-CV-12 and a jumper was added across breaker auxiliary switch contact 52a in the common 118V AC Class 1E distribution panel XEC2-1 to provide electrical isolation between the two Units in order to ensure safe operation of Unit 1. The above activity (DM 91-015 R.O) involves reconnecting these cables to the distribution panel and status light panel to provide Control Room indication at status light panel X-CV-12 of manual transfer switch position (Unit 1 or Unit2) as well as removing the jumper from the auxiliary contacts of the branch feeder breaker in the distribution panel to provide indication at the Unit 2 Safety System Inoperable Indication (SSII) panel.

Summary of Evaluation:

The reconnection of the above described Unit 2 indicating light circuit to the common 118V AC Class 1E distribution panel XEC2-1 and status light panel X-CV-12 and removal of the above described jumper do not constitute an unreviewed safety question for Unit 1 due to the following:

- 1) The voltage drop in this circuit has been calculated and will not interfere with the indicating light performance when Unit 2 is supplying power to the panel.
- 2) The indicating light and SSII circuit auxiliary contacts are able to withstand the maximum credible voltages available in the status light circuits and the circuits are provided with protection devices to ensure that there are no uncleared faults. Also this will ensure that a fault in one of these circuits will not impact Unit 1 loads or power supplies.
- 3) The cables in this circuit are properly routed in Unit 2 raceways and are not required for safe shutdown. System interaction is therefore not a concern.
- 4) The cables associated with the added circuit are appropriately accounted for in the Unit 1 and common area combustible load calculations and are not required for fire safe shutdown.

It should also be noted that the additional load associated with this indicating light is negligible compared to the total load on the panel, and is only energized when the panel is being powered from either Unit 1 or Unit 2 source; the SSII indicating light operate only when the breaker is open. As a result there is no impact on the Unit 1 emergency power load profiles or capacity of the feeder breaker of the panel.

Evaluation Number
SE-91-119

Activity Title:

Retermination of Unit 2 Cables at Class 1E Distribution Panel Auto-Transfer Switches XED1-1S & XED2-1S (DM 90-420 R.O, LDCR SA-91-042)

Description of Change(s):

Prior to the startup of Unit 1, the Unit 2 cables E0202533 and EG202593 were determined at respective auto-transfer switches XED1-1S (in common Class 1E 125V DC distribution panel XED1-1) and XED2-1S (in common Class 1E 125V DC distribution panel XED2-1) to provide electrical isolation between the two Units in order to ensure the safe operation and safe shutdown of Unit 1. The above activity (DM 90-420 R.O) involves reconnecting these cables at the auto-transfer switches in the respective distribution panels to restore the alternate power supply to the DC distribution panels XED1-1 and XED2-1.

Summary of Evaluation:

The reconnection of the Unit 2 power supply cables at the auto-transfer switches in the common Class 1E 125V DC distribution panels XED1-1 and XED2-1 do not introduce any additional credible potential failure modes due to the following:

- 1) Power to the panels is controlled by an automatic transfer switch which is electrically interlocked to preclude supplying power from both Units simultaneously. Control Room indication of the Unit supplying the power is available to the operators.
- 2) The Unit 2 cables are properly sized to maintain adequate voltage at the bus for all connected loads.
- 3) The Unit 2 batteries supplying these common DC panels have adequate capacity for the designed accident load profile.
- 4) The maximum calculated short circuit current due to this activity is below the short circuit rating of the panels and the power supply cables are connected through a 200A fusible switch to ensure that a fault in Unit 2 will not propagate to Unit 1.
- 5) The Unit 2 cables were properly considered in the system interaction program in order to ensure that no adverse interactions exist.
- 6) The cables meet the flame test requirements of IEEE 383. These cables are properly accounted in the Unit 1 and common area combustible loading calculations and the cable routings meet the requirements for cable separation. XED1-1S and XED2-1S are required for the fire safe shutdown of Unit 1 and are included in the Unit 1 Fire Safe Shutdown Analysis(FSSA). Therefore the FSSA for Unit 1 is not adversely affected.

Evaluation Number
SE-91-122

Activity Title:

Revise FSAR Text and Figures in Section 8.3 to Reflect Retermination of Unit 2 Cables in the Appropriate MCCs and DPs (LDCR SA-91-042)

Description of Change(s):

Prior to the startup of Unit 1, numerous Unit 2 power cables were determined from the six common Class 1E 480V motor control centers (MCCs), two common Class 1E 118V AC distribution panels (DPs) and two common Class 1E 125V DC distribution panels. In addition to power cables, numerous cables to indicating light circuits, balance of plant (BOP) auxiliary relay circuits, monitor light box (MLB) circuits, safety system inoperable indication (SSII) circuits and safety injection and undervoltage trip circuits were disconnected. Also cables to several of the Non-1E 480V MCCs were disconnected.

These cables have been reconnected under Design Modifications (DM) 90-420, 91-006, 009, 010, 012, 013, 014, 015, and 017. The respective Safety Evaluations associated with these implemented modifications are SE-91-119, 099, 020, 092, 100, 116, 117, 118 and 087.

The above activity (LDCR SA-91-042) involves revising the FSAR Section 8.3.1.1.9 as well as the FSAR Figures 8.3-11 sheets 1, 2 & 3, 8.3-12 sheets 1 & 2, 8.3-14 sheets 1 & 2 and 8.3-15A sheet 2 to reflect the retermination of these cables in order to make the FSAR agree with the modified configuration.

Summary of Evaluation:

Refer to the summaries of the individual Safety Evaluations identified above.

Evaluation Number
SE-91-123

Activity Title:

LDCR EP-91-002; Emergency Plan Revision

Description of Change(s):

LDCR EP-91-002 proposes numerous changes to the CPSES Emergency Plan, including deletion of any reference to the Corporate Emergency Organization for Nuclear Incidents (CEONI) and Corporate Office Support Center (COSC).

Summary of Evaluation:

The CEONI was intended to supplement and interface with the CPSES Emergency Organization. The CEONI provided support by informing corporate officials of declared emergencies at CPSES and by providing technical and logistical support to the NEO Organization. The CEONI also had the lead or sole responsibility for such capabilities as legal counsel, reactor engineering and licensing, insurance, dissemination of emergency-related information to TU Electric employees and divisions, Dallas office security, apprising public officials and agencies not directly involved in emergency response and offsite technical services such as environmental monitoring. Because these capabilities are still being conducted at the Dallas offices and/or onsite, Revision 13 of the Emergency Plan does not decrease the effectiveness of the Plan. Also, because these support roles are now being either conducted or coordinated from the site, a more central control can be exercised over them which should lead to better efficiency and effectiveness.

This change does not relate to any plant structure, system, or components and/or system parameters; therefore, there are no credible potential failure modes attributed to removing the Corporate Office Support Center (COSC) from the Emergency Plan.

Evaluation Number
SE-91-128

Activity Title:

Code Classification Change for the Diesel Generator Exhaust Piping
(LDCR SA-91-162)

Description of Change(s):

The exhaust piping and supports for the Diesel Generator were designed, analyzed, installed and inspected to the requirements of ASME Section III including Code Case N-253-2. The piping and supports are being declassified (from Code Class 3) because they were not stamped during the installation and inspection process. The Safety Classification and Seismic Category of the piping and supports are not affected by this change.

Summary of Evaluation:

The possibility of failure of the Diesel Exhaust piping and supports is not increased by this change because the material stress allowables meet or exceed the requirements of Code Case N-253-2. Since there is no increase in the possibility of failure, this change does not have an effect on postulated accidents or the margin of safety, nor does it create a new type of unanalyzed event.

Evaluation Number
SE-91-131

Activity Title:

Revision to the Emergency Plan to Remove References to the Alternate Operations Support Center (LDCR EP-91-003)

Description of Change(s):

Deletes all references to the Alternate Operations Support Center (OSC) in the CPSES Emergency Plan. This change is planned to protect the Emergency Organization members assigned to the OSC in the event of an accident with very high dose rates. It has been determined that dose rates requiring the evacuation of the primary OSC would make the alternate location untenable. These personnel will be relocated to the Logistical Support Center (LSC) in the CPE Engineering Building, where they will continue to support emergency response.

Summary of Evaluation:

No structures, systems, components and/or system parameters will be affected by implementation of this activity; therefore, no credible potential failure mode can be introduced by implementation of this activity. There are no accidents or malfunctions of equipment important to safety described in the Licensing Basis Documents involving systems, structures or components and/or system parameters that could be affected by implementation of this activity.

Evaluation Number
SE-91-133

Activity Title:

Restoration of Unit 2 Safeguards Bldg. Primary Plant Ventilation Syst.
& Aux. Bldg. HVAC Supply & Exhaust for Rms. 100 & 107 (LDCR SA-91-167)

Description of Change(s):

In order to complete the overall installation of the Primary Plant Ventilation System and to allow the simultaneous operation of Unit 1 and Unit 2, it is necessary to remove blank-off plates and restore flex connections from Unit 1 ductwork to Unit 2 ductwork. In addition, it is necessary to remove blank-off plates and restore flex connections and/or registers in Rooms 100 and 107 to complete the installation of the Primary Plant Ventilation System from the Auxiliary Building for future operation.

Prior to restoration, the respective fire dampers in the wall penetrations will be closed, which will move the current Unit 1 boundary from the blank-off plates to the fire dampers. This will allow the removal of existing blank-off plates and the ability to install the prefabricated flex connections and/or registers while Unit 1 is in operation, without affecting the negative pressure boundary in Unit 1.

Summary of Evaluation:

Implementation of this change will not impact the accidents analyzed in the plant, however, it will impact the loss of the negative pressure within Unit 1 boundaries, while fire dampers are being closed to establish isolation. Utilizing the fire dampers as isolation devices will not affect the capability of the Primary Plant Ventilation System to maintain the required negative pressure inside Unit 1 and common. This change will not adversely affect the ability to achieve and maintain safe shutdown in the event of fire.

Evaluation Number
SE-91-139

Activity Title:

Temporary Installation of a Test Blind Flange at the 48" Containment Isolation Valves to Confirm Compliance with T/S 3/4.6.1.7.

Description of Change(s):

A test blind flange was installed to individually leak rate test the valves in Containment penetrations MV-1 and MV-2.

The test methodology used for determining leakage rates has been changed by this temporary modification to comply with the corrective actions described in LER 90-024 submitted in TU Electric letter logged TXX-90311 on September 24, 1990. Previously, the Containment isolation valves were tested simultaneously and the leakage rate reported was the total leakage rate measured. This change assesses which valve in each penetration has the highest leakage rate with stem leakage properly considered to confirm that the penetration is in compliance with Technical Specification 3/4.6.1.7.

Summary of Evaluation:

The failure modes of the Containment ventilation penetrations is unaffected by the addition of the blind flange at the penetration. The installation of a passive device such as a blind flange cannot contribute to or affect the failure mode of the Containment isolation valves in any manner except due to the weight of the flange with respect to a seismic event. This installation has been analyzed for pressure retention, structural and seismic considerations and determined to be acceptable. With the blind flange in place, all stresses for the penetration and valves are within FSAR and Code allowables.

Since the valve is already locked closed in its safe position, it does not have an active function. The safety function is simply to prevent excess leakage through the penetration when both valves are locked closed. Therefore, leaving a flange in place provides an additional boundary. Since there is no credible event that a blind flange can initiate, there is no increase in probability of occurrence.

Evaluation Number
SE-91-145

Activity Title:

Eliminate Inline Review of Unit 1 Nonconformance Documents by the
Nuclear Operations Department (LDCR SA-91-191)

Description of Change(s):

The Nuclear Overview Department will not review the disposition and closure of the Unit 1 nonconformance documents, Operations Notification and Evaluation (ONE) Forms, as an inline function. The Manager who is responsible for dispositioning and closing the ONE Form will ensure the adequacy of the disposition and closure. Nuclear Overview will maintain their monitoring/auditing role over the process as before.

Summary of Evaluation:

This is a change to a program described in the FSAR. The change does not directly affect hardware items such as structures, systems or components, hence no credible potential failure modes are introduced. Similarly, there is no affect on previously evaluated accidents.

An evaluation of the results of the closure review process for nonconformances has concluded that the nonconformance process and administrative controls administered by the cognizant manager have been effective in appropriately correcting identified nonconformances. Since the cognizant managers have been appropriately correcting nonconformances, this change will not directly or indirectly affect the quality of structures, systems or components.

Evaluation Number
SE-91-146
Revision 1

Activity Title:

Revision to Structural Heat Sink Parameters for Containment Analysis
(LDCR SA-90-164)

Description of Change(s):

The structural heat sink values listed in the Final Safety Analysis Report Table 6.2.1-6 have been revised to reflect the updated inventory inside Containment. The passive heat sink values have been re-evaluated to mitigate the net effect of the following changes on the accident pressure and temperature for the Containment.

1. A 5% reduction in the Containment Spray flow rate due to assumed degradation in the Containment Spray pump performance (not considered in the original analysis).
2. An assumption of 15% reduction in the Containment Spray effectiveness due to blockage of the spray cone by obstruction from cable trays and other equipment (not considered in the original analysis).
3. The effect of the increased heat load from restoring the Spent Fuel Pool Cooling System within 24 hours after a LOCA to preclude pool temperature approaching boiling temperature (based on maximum heat load).

Summary of Evaluation:

The changes in the input parameters for the LOCA/MSLB analysis have a minor effect in the later stages of the pressure and temperature transients. The combined effect however is that the temperature and pressure values do not significantly change from those of the original analysis. The effect of increased value of passive heat sinks has a mitigating effect during the entire duration of the pressure and temperature transient.

This change does not affect the values of the parameters which are considered in the design and analysis of the Containment and associated systems and components, and the environmental qualification of equipment located inside Containment because there is no significant change in the accident pressure and temperature values.

Evaluation Number
SE-91-147

Activity Title:

Addition of New Chemical Injection System for the Circulating Water and Surface Water Pretreatment Systems (DM 89-182)

Description of Change(s):

This modification adds four pumps and three tanks for the injection of sodium hypochlorite and sodium bromide into the Circulating Water and Surface Water Pre-treatment systems for the treatment of organic bio-fouling in those systems. The pumps and tanks will be located in the non-seismic Circulating Water Chlorination Building. This modification is an upgrade to the original Liquid Chlorine Injection system.

Summary of Evaluation:

The changes made by this modification are non-safety related. The equipment added by this modification is all NNS. Implementation of this modification, with its associated potential failure modes, does not involve an unreviewed safety question.

Evaluation Number
SE-91-148

Activity Title:

Removing the Locked Closed Designation from CVCS Mixed Bed Dem.in.
Drain Header Isolation Valve (LDCR SA-92-088)

Description of Change(s):

The activity proposed is to remove the "locked closed" designation from a Chemical and Volume Control System (CVCS) Mixed Bed Demineralizer drain header isolation valve. This valve provides isolation for a flowpath away from the CVCS Mixed Bed Demineralizers, through a Vents and Drains System drain header, to the Liquid Waste Processing System Waste Holdup Tank.

Summary of Evaluation:

Removal of the "locked closed" designation would achieve consistency with other CVCS valves which provide isolation for a flowpath which leads away from the demineralizers and flow to the Liquid Waste Holdup Tank. "Locked closed" designations do not exist for these other isolation valves and there are no requirements identified in Engineering Report ER-ME-15, "Locked Valve Criteria", whereby these valves should be designated as "locked closed." Removal of the mechanical locking device for this valve would allow for greater operator flexibility in positioning the subject valve. The implementation of this activity to the CPSES Unit 1 does not increase the probability or consequences of an accident previously evaluated, and does not increase the possibility of a new accident not previously evaluated. It does not decrease the margin of safety defined by the bases of the Technical Specification nor does it impact the radiological consequences of any accident.

Evaluation Number
SE-91-150

Activity Title:

Installation of Two Isolation Dampers in the Electrical and Control Building Room 113 (LDCR SA-91-178)

Description of Change(s):

This change adds the isolation dampers in the Electrical and Control (E & C) Building room 113 for the non-safety portion of the Uncontrolled Access Area Ventilation System and alarm functions to monitor damper positions. In the event of an inadvertent closure of either of these high energy line break (HELB) dampers, the temperature of room 114 may increase or decrease and room 114 may pressurize. This will result in high levels of chemical fumes (hydrazine) in room 114 and potential spread of these fumes in room 113 and into the breathing system. This design modification also includes the installation of a monitoring system to minimize the hydrazine buildup due to an inadvertent damper closure.

Summary of Evaluation:

The HELB accident has been analyzed for this design modification, which resulted in the installation of two HELB isolation dampers in E & C Building room 113. These dampers are required to prevent propagation of steam to Unit 2 safety related battery rooms 2-1 through 2-3. In the event of an inadvertent closure of either of these HELB dampers, the temperature and pressure in the room may increase or decrease resulting in the high levels of chemical fumes (hydrazine). Installation of a monitoring system will minimize the hydrazine buildup due to an advertent closure of the dampers. Installation of these dampers will not change the functional capability of the uncontrolled access area and battery room ventilation system and will not change the consequences of any accident or malfunction previously reviewed in the FSAR. The dampers will be installed in non-safety, Seismic Class II, Unit 2 exhaust ductwork. There are no accidents or malfunctions of equipment important to safety in the Licensing Basis Documents considered to be impacted by this modification. This activity will not affect the operation of the safety related portion of the uncontrolled access area and battery rooms HVAC system and will thus not affect the related Technical Specification limitation.

Evaluation Number
SE-92-001

Activity Title:

Deviation from Locked Closed Position on Unit 1 Circulating Water System

Description of Change(s):

This activity removes the restriction on manipulating LC-2 valve X-CW-0006 in the Circulating Water System and is required for system operation during Unit 2 HFT. It also includes removing the locking device from the valve and repositioning the valve as necessary to support system operation.

Summary of Evaluation:

The LC-2 designation was provided to identify valves that were locked closed during Unit 2 construction/Unit 1 operation and to serve as the Unit 1/Unit 2 cross-tie isolation point. This isolation provided protection during Unit 2 construction and was in addition to any locking requirements necessary to meet GDC-5 "Sharing of Structures, Systems and Components". Unit 2 construction has progressed to the point where these valves can be restored to a normal "as-designed" two-unit system line-up. The additional administrative protection provided by the LC-2 designation is no longer required. This activity allows the Unit 1 and Unit 2 personnel to reposition the valves as necessary per the applicable procedures to place the systems in operation.

This activity places the valves in the normal as-designed and as analyzed configuration and does not introduce any credible potential failure modes.

Evaluation Number
SE-92-026
Revision 4

Activity Title:

Addition of Power and Control Cables for Common Non-Safety Chiller System, "Stage Two," and Associated Electr. Equip. Mod.(DM 91-049 R.5)

Description of Change(s):

This design modification performs changes for Unit 1 and common electrical equipment only and is identified below:

- (1) Modify cubicle 3 (BKR XA1-4) of 6.9KV SWGR XA1 to feed the three new chillers (CPS-CHCICE-07, 08, 09) by disconnecting the power and control cables used for the Electrical Auxiliary Boiler, powering cable raceway design from CUB. 3 (BKR XA1-4) to chiller starters and revising the breaker schematics, wiring, ICD and vendor drawings to convert the breaker XA1-4 (CUB. 3) from remote controlled to locally controlled.
- (2) Provide 480V power cable and raceway design from 480V bus XB1 to MCC XB1-7.
- (3) Provide 120V AC power cable and raceway design from panel 2STB2 to chilled water auxiliary panel CPX-EIPRLV-67.
- (4) Provide signal cable and raceway design from new chilled water auxiliary panel CPX-EIPRLV-67 to existing chilled water auxiliary panel CPX-EIPRLV-46.
- (5) Remove the following Main Control Room man-machine interface devices for CUB. 3 (BKR XA1-4) of 6.9KV SWGR XA1, which was feeding the Electrical Auxiliary Boiler:
 - (a) Control Switch X-HS-3624 on Control Panel CP1-ECPRCB-01;
 - (b) Annunciator X-YA-3267 on Annunciator Light Box 1-ALB-2A;
 - (c) P-2500 Computer Point X-YD-3267.

Summary of Evaluation:

The Chilled Water System and required cables/raceways are non-safety related and the routings of cables comply with the electrical separation requirements per Regulatory Guide 1.75 and IEEE 384. The increase in fire loading values are negligible since no new penetrations are necessary as the cable routing through Unit 1 and common area is through existing raceways. Therefore, the addition of the new cables to the non-safety Chilled Water System will not introduce any additional credible potential failure modes and will not have any adverse effect on the safe operation of Units 1 & 2. In addition removal of non-operable components required for CUB. 3, from the Main Control Room Panels per Human Factors Design Review in FSAR Section I.D.1, should reduce the potential for an operator error.

Evaluation Number
SE-92-027

Activity Title:

Removal of Note on the Auxiliary Steam Drawing to have Valves XSA-0233 and XSA-0234 Remain Closed (LDCR SA-92-003)

Description of Change(s):

The Auxiliary Steam Drawing M1-213 has been revised to remove Note 13 and the locked closed designation for valves XSA-0233 and XSA-0234. This note indicated that the valves are required to be closed to prevent an unmitigated high energy line break. The valves are located at the Unit 1 and Unit 2 interface and are required to be opened to facilitate secondary hydrostatic testing and vacuum testing, when Unit 2 starts up. Opening these valves opens up cross-connect piping between the two Units. The valves are designed to be operated to perform the testing described above, as part of the original design.

Summary of Evaluation:

Allowing the opening of these valves does not affect the structures, systems, or components (SSC) affected by or the ability to mitigate HELB that may occur in the Auxiliary Steam piping because isolation is provided isolation valves 1LV-2035, 2LV-2035, 1PV-3222, 2PV-3222, X-PV-3218, and X-PV-3218A. These isolation valves are interlocked to receive a low pressure signal from either Unit Auxiliary Steam piping and will isolate the Units. This change provides for HELB mitigation for the Auxiliary Steam systems, and therefore no credible failure modes are caused by not locking the valves closed.

The interlocked isolation valves discussed above would isolate the Auxiliary Steam system in the event of a HELB. There are no accidents or malfunctions of equipment important to safety described in the Licensing Basis Documents (LBDs) that could be affected by this activity. Since any HELB would be mitigated by double isolation valves, there are no radiological consequences of this change. There are no licensing basis accidents which could be initiated by opening these valves. Therefore, this activity will not affect the probability of occurrence of any accidents. In addition, a HELB in the Auxiliary Steam system piping could not create an accident different from those evaluated in the LBDs since double isolation valves are provided in all possible flow paths. There are no Technical Specifications associated with HELB in the Auxiliary Steam system.

Evaluation Number
SE-92-028

Activity Title:

Replacement of the Four Seal Oil System Pumps and Motors
(DM 91-029 R.1, LDCR SA-92-590)

Description of Change(s):

This modification replaces the four currently installed pumps (including four motors) with similar rotary, screw type, positive displacement pumps (and four motors) manufactured by IMO Industires for enhanced reliability. The currently installed pumps are no longer manufactured and spare/replacement parts are not readily available. The equipment and components potentially affected by this change include the Generator Seal Oil System, Motor Control Centers 1B3-1/1B4-1, battery BT1D2 and the relay settings for the new motors.

Summary of Evaluation:

All equipment affected by implementation of this change is non-safety related, seismic category NONE and non-class 1E, and piping is Class G. The arrangement of the three (3) AC driven motors and one (1) DC driven motor will be maintained to provide identical operational flexibility. Since the new equipment is similar in form, fit and function to the equipment being replaced, the failure modes of the Seal Oil System will remain the same and no new credible potential failures are introduced. Accordingly, the replacement of the obsolete equipment does not increase the probability of any accidents evaluated in the licensing basis, does not create any new type of accident evaluated in the licensing basis, does not create any new type of accident, nor does it have any impact on the radiological consequences of the accidents evaluated for the licensing basis.

Evaluation Number
SE-92-029

Activity Title:

Unit 2 Safeguards Building Primary Plant Ventilation Restoration

Description of Change(s):

In order to complete the overall installation of the Primary Plant Ventilation System, the blank-off plates are being removed and the flex connections are being restored from the Unit 2 Safeguards Building main supply and exhaust ducts from the Primary Plant Ventilation System. Prior to making these changes, the respective fire dampers in the wall penetrations will be closed which will move the current Unit 1 boundary from the blank-off plates to the fire dampers. Closing the fire dampers will allow the removal of the existing blank-off plates and the installation of the prefabricated flex connections while Unit 1 is in operation without affecting the negative pressure boundary in Unit 1. These changes will allow simultaneous operation of Unit 1 and Unit 2.

Summary of Evaluation:

Although there are no analyzed accidents involved with this change, consideration is given to a loss of negative pressure within Unit 1 boundaries while the fire dampers are being closed to establish isolation. The Unit 1 pressure boundary will be monitored and, if necessary, an additional filter train will be energized to increase the exhaust side capacity in order to maintain negative pressure. In addition, the fire dampers in the supply and exhaust duct will be administratively controlled during testing. Implementation of these measures will ensure that the modifications will not impact the probability of occurrence of any Licensing Basis Accidents.

Evaluation Number
SE-92-030

Activity Title:

DM 89-168: Addition of Plant Effluent Holdup and Monitor Tanks to the Liquid Waste Processing System (LDCR SA-92-007)

Description of Change(s):

The DM adds two 30,000 gallon plant effluent holdup and monitor tanks and associated piping, valves, pumps, instrumentation and controls to the Liquid Waste Processing System which is part of the Radioactive Waste Management System. This addition is to improve the capability for holdup of liquid wastes for discharge and reduce the frequency of sampling and processing.

Summary of Evaluation:

All piping and equipment affected by this modification is non-nuclear safety related but is within the Radioactive Waste Management System. Implementation of this activity would have the same effect on structures, systems or components and/or system parameters as the existing Liquid Waste Processing System. Therefore, no accidents or malfunctions of equipment important to safety as described in the Licensing Basis Documents are affected by implementation of this DM. In addition, there are no Technical Specifications associated with the Liquid Waste Processing System that would be affected by this activity.

Evaluation Number
SE-92-031

Activity Title:

Temporary Modification to Install an Adaptor with Isolation Valve Down Stream of RCP #4 Seal Injection Test Valve to Control Seat Leakage

Description of Change(s):

This temporary modification will install an adapter with isolation valve on 3/4"x4" T.O.E nipple downstream of 1CS-0098D to control seat leakage. At present, seat leakage is being routed directly to a floor drain via tygon tubing. The proposed activity will be installed on RCP Seal Injection Line located in the Unit 1 Safeguard Building, Radioactive Penetration Room (77N) on EL 819'-6" (See Temporary Modification TM 92-1-001 R/O). The system is CVCS and the component is 1CS-0098D (RCP # 4 Seal Injection Test Valve) 3/4"x4" T.O.C nipple. System parameter is RCP Seal Injection flow.

Summary of Evaluation:

1CS-0098D (RCP # 4 Seal Injection Test Valve) exhibits approximately 0.25 GPM seat leakage. Leak rate is sufficient to prevent re-installation of pipe cap. Plant operating conditions prevent securing the RCP Seal Injection flow long enough to re-install pipe cap. Adapter will be installed with isolation valve open. The isolation valve will be closed once the adapter is fully threaded on the nipple. The isolation valve will effectively replace the pipe cap. 1CS-0098D will remain closed while temporary modification is being installed to control/contain leakage for housekeeping/chemistry control. Failure of this temporary modification will not affect RCP Seal Injection flow (since 1CS-0098D will remain closed) and would not be capable of causing a malfunction in any equipment important to safety. Implementation of the proposed activity will have no effect on any accident evaluated in the FSAR or create the possibility for an accident of a different type from any evaluated in the FSAR. Radiological conditions will be improved since system leakage will be reduced/eliminated. There are no Technical Specifications associated with the RCP Seal Injection. The adaptor and isolation valve will not become a pressure boundary for the pipe line 2-CS-1-101-2501R-2. The proposed activity will not affect the safety of the plant, safety analysis or the margin of safety.

Evaluation Number
SE-92-034

Activity Title:

Extension of the Committed Date for Removing the Data Acquisition System (DAS) from the First Refueling to the Third Refueling Outage

Description of Change(s):

The activity is the extension of the time the data acquisition system is installed in Unit 1. Removal of the Data Acquisition System, installed under a Temporary Modification, was verbally committed to the NRC by the end of the first refueling.

Summary of Evaluation:

The removal date of the Data acquisition System (DAS) is extended from the end of the first refueling to the end of the third refueling. The commitment to remove the DAS by the end of the third refueling was made verbally to the NRC (Mr. Frank Ashe). The commitment to remove the DAS was made because the DAS was installed as a temporary modification. The change in DAS removal date is needed to coincide with replacement of the plant computers during RF03.

The effect on accidents and malfunctions evaluated in the licensing basis documents, the potential for creation of new type of unanalyzed event, and the impact on the margin of safety were reviewed prior to installation of the DAS. The Safety Evaluation under which the DAS was installed, SE-89-072, was summarized and the summary submitted to the NRC via letter dated February 28, 1990, and logged TXX-91090. The change in commitment does not affect the physical installation of the DAS. The Safety Evaluation (SE-92-034) reviewed SE-89-072, under which the DAS was installed, and found it to still be valid and unaffected by the extension of time from RF01 to RF03.

Evaluation Number
SE-92-035

Activity Title:

Reactor Protection System Increased Incore/Excore Calibration Due to the Cold Leg Temperature Streaming Phenomenon

Description of Change(s):

This activity revises the "Incore/Excore Detector Calibration" procedure to restrict the maximum allowable delta-I mismatch between the incore and excore detectors to 1.6%. This revision is the outcome of the resolution of the "cold leg temperature streaming phenomenon".

Summary of Evaluation:

The presence of the "cold leg temperature streaming phenomenon" potentially impacts Over-temperature N-16, Over-power N-16, Tavg-low and the Tavg-low-low trip functions, and the uncertainties associated with the measurement of Reactor Coolant system flow and automatic control of Tavg. Administratively limiting the maximum incore/excore delta-I mismatch to 1.6% (Technical Specifications permit up to 3%) ensures that the Reactor Protection System is capable of performing its intended safety function, specifically the N-16 over-temperature Reactor trip, for the prevention of DNB.

Evaluation Number
SE-92-039

Activity Title:

Diesel Generator Lube Oil Sump Tank and Crankcase Vents are Missile Protected and Seismically Analyzed (LDCR SA-91-065)

Description of Change(s):

The vent lines were originally designed as non-ASME III, class 5, non-seismic with no tornado/missile protection. These vent lines perform a safety related function and blockage of these lines due to tornado or missile impact will render the Diesel Generator inoperative and impact the safe operation of the plant. The vent lines will be missile protected and are seismically analyzed to assure the structural and functional integrity during a seismic event.

Summary of Evaluation:

Crimping or blockage of the vent lines due to either tornado or seismic or missile events could lead to loss of Diesel Engine lube oil and eventual loss of the Diesel Engine. The change added missile protection for the Diesel Generator lube oil and crankcase vents on the generator enclosure roof to preclude their blockage from a missile strike. The vent lines are also seismically analyzed for the structural and functional integrity during a seismic event. Implementation of this activity precludes failure due to seismic events and missile strikes, thus enhancing the overall reliability of the Emergency Diesel Generator.

Evaluation Number
SE-92-040

Activity Title:

Revision to the Large Break LOCA Peak Cladding Temperature (PCT) to
Account for the Seismic/LOCA Assumption Penalty

Description of Change(s):

This activity revises the large break LOCA peak cladding temperature (PCT) to account for a revised analysis which included an assumption of Steam Generator tube collapse due to an SSE in combination with the LOCA, and also to account for errors made by Westinghouse in the CPSES Unit 1 ECCS calculation.

Summary of Evaluation:

The PCT increase due to LOCA/SSE assumption was 7.2 degrees F and the increase due to the ECCS error was 47.8 degrees F. The total PCT increase for this activity was 55 degrees F and was reported to the NRC as required by 10CFR50.46(a)(3)(i). The revised maximum PCT is now 2065.7 degrees F which remains well below 2200 degree limiting value established by 10CFR50.46(b)(1).

Evaluation Number
SE-92-041

Activity Title:

Conversion of Laundry Room into a New Chemistry Instrument Laboratory.
Provide Services Required by the New Lab. (DM 91-077, LDCR SA-92-608)

Description of Change(s):

The existing laundry room (room 27) is converted to function as a chemistry instrument laboratory which supports analytical chemistry activities for two Unit operation. This conversion of the new laboratory requires supply from non-safety chilled water system, instrument air system, HVAC system, and the re-routing of the drain lines.

Summary of Evaluation:

Conversion of laundry room to a new chemistry instrument laboratory requires the services from plant gas, instrument air, potable water, demineralizer water, chilled water, HVAC as well as electric power supply. The new laboratory is non-safety related. The only safety related function that is related to this change is the exhaust from the laboratory to the Primary Plant Ventilation System (PPVS). The PPVS maintains the slight negative pressure in the negative pressure boundary during normal and emergency conditions. Addition of the exhaust from the laboratory (continuous as well as intermittent) will not impact the safety function of the PPVS, since the PPVS has more than adequate capacity to handle the new laboratory exhaust.

Evaluation Number
SE-92-042

Activity Title:

Revise the List of Multitrain Equipment for Units 1 and 2 That Do Not Require Internal Separation (LDCR SA-90-236)

Description of Change(s):

This activity updates FSAR Table 8.3-10 to include the tag numbers for the Unit 2 counterparts of Unit 1 Multitrain Equipment previously analyzed and exempted from Internal Separation and the tag numbers of Multitrain Equipment that are exempted from Internal Separation in the text of FSAR Sections 7.1.2.2 and 8.3. This update also adds the Safeguards Test Cabinets to Table 8.3-10.

The Safeguards Test Cabinet (STC) is used for on-line testing of slave relays located in the output bays of the Solid State Protection System (SSPS).

Summary of Evaluation:

There are no potential credible failure modes for the affected components that could be introduced by this activity. All components except the Safeguards Test Cabinets were previously analyzed and exempted. The analysis for the STC was performed and demonstrated that wiring separation internal to the Safeguards Test Cabinet is not required. There are no licensing basis accidents or malfunctions that could be affected by this activity. There are no Technical Specifications associated with this activity.

Evaluation Number
SE-92-043

Activity Title:

LDCR TS-91-019; Revision to the Condensate Storage Tank Inventory
Values in Technical Specification Bases 3/4.7.1.3.

Description of Change(s):

This activity revised values shown in the Technical Specifications
Bases 3/4.7.1.3 for the Condensate Storage Tank inventory as follows:

Unusable volume - from 12,000 gallons to 12,900 gallons,
Required usable volume - from 250,000 gallons to 249,000
gallons.

The total of unusable and required usable volume remains as 262,000
gallons.

Summary of Evaluation:

The revision updates the values to reflect the results of calculation
ME(B)-172 which uses a more conservative method of determining
required critical depth (submergence) to avoid vortex formation during
tank drawdown. The required CST water level given in Technical
Specification 3.7.1.3 of 53% is not affected.

There is no effect on the Auxiliary Feedwater Systems ability to
perform its stated functions. There are no credible potential
failures introduced by this activity. The system parameters affected
by this activity do not affect any accident or malfunction of
equipment important to safety described in the License Basis
Documents.

Evaluation Number
SE-92-044

Activity Title:

Procedural Revision to Change the Responsibility for Calibration of
Portable Radiation Protection Instrumentation

Description of Change(s):

Reassigns responsibility for calibration of Radiation Protection (RP) portable survey instruments from the Radiation Protection Department to the Instrument & Calibration (I&C) Department by revision of procedure STA-658, "Radiation Protection Equipment Calibration Program." FSAR Section 12.5 specifies calibration as a service provided by the Radiation Protection Department; however, these duties have been delineated as an I&C function following an organizational change.

Summary of Evaluation:

The calibration of RP portable survey equipment involves no plant systems, structures, components and/or system parameters. Calibration of RP portable survey equipment uses the Radiation Protection Instrumentation Calibration Facility and Cs-137 Calibration Well Source located south of the Unit 1 Turbine Building as described in FSAR Section 12.5. There will be no change in the use of these facilities as the I&C Department has taken over and uses the areas in the same manner as the Radiation Protection Department did in the past. The change does not affect plant structures, systems, components and/or system parameters as it is an administrative change in responsible organization only; therefore, there are no credible potential failure modes that could be introduced by implementing this activity. Any failure in the Radiation Protection Instrumentation Calibration Facility or Calibration Well Source would have no effect on plant performance or safety. The safety features of the Calibration Well Source (fenced-in area, locked entry, posted area, flashing lights) are not affected by this administrative change in organizational responsibility.

Evaluation Number
SE-92-046

Activity Title:

Testing of Component Cooling Water Stop Check Valves Located Upstream of the Reactor Coolant Pump Thermal Barrier Coolers

Description of Change(s):

This change adds a requirement to manually exercise the Component Cooling Water (CCW) stop check valves as part of a preventative maintenance activity to procedure OPT-501A-R2-1. The change is identified as PCN- OPT-501A-R2-1. This change is part of a corrective action resulting from a failure of the valves to close during a reverse flow test (PIR-FX-91-1320 R.1). The purpose of the test is to verify that the check valves will close. Manually exercising the check valves will result in the Reactor Coolant Pump thermal barrier coolers being temporarily isolated during normal plant operation.

Summary of Evaluation:

During the testing of the valves, the isolated portion of the CCW will retain heat and be subject to thermal expansion.

Two potential failure modes have been identified associated with this activity:

1. The isolated portion of the CCW system could be heated resulting in the thermal reliefs lifting. Lifting of the thermal reliefs results in an indication of a thermal barrier cooler failure, leading to a containment isolation signal which would isolate CCW flow to all four reactor coolant pump seal thermal barrier coolers. To prevent this from occurring, a one minute time limit and a temperature limit is imposed on the CCW isolation. In addition, operator monitoring of the temperature is included as part of the test requirements.

2. Damage to the RCP O-rings could result from overheating if seal injection flow is interrupted while CCW to the thermal barriers is isolated. Seal injection water is the normal cooling to the RCP seals. The CCW cooling to the thermal barrier coolers is a designed back-up cooling system should the seal injection flow be stopped.

The probability of the loss of seal injection flow is considered a low probability event, considering the one minute limitation on the out of service CCW. In addition, an existing abnormal operating procedure addresses the loss of seal injection.

The system is designed for loss of all cooling for one minute per the Westinghouse E-Spec. The one minute provides adequate time to restore CCW to the thermal barrier coolers. Loss of coolant resulting from this test is enveloped by the existing LBDs. Therefore, with the one minute time limit and the temperature limit, no credible effect on accidents and malfunctions or potential for creation of the new type on unanalyzed event exists for this change.

Evaluation Number
SE-92-047

Activity Title:

Addition of Filter Demineralizer Skid Mounted Unit for the Unit 2
Component Cooling Water System (DM 91-061 R.1, LDCR SA-92-618)

Description of Change(s):

A filter/demineralizer skid has been added to Component Cooling Water System (CCWS) for Unit 2 chemistry control. The filter/demineralizer will aid in reducing suspended solids and provide ion exchange to maintain system chloride levels during Unit 2 flushing/preoperational testing and plant operation to mitigate deposit fouling in heat exchangers and provide stability in system chemistry for corrosion inhibition. In addition, since Unit 1 continues to require almost constant demineralization of CCWS to reduce chloride levels, this unit will provide this service should Unit 2 CCWS experience the same problem.

Summary of Evaluation:

Addition of the filter/demineralizer skid will help the flushing/preoperational testing and Unit 2 operation of the CCWS to control the chloride levels of Unit 2 CCWS. The piping and equipment has been reviewed and no adverse system interaction is postulated to occur as a result of the addition of the new piping and equipment. The piping is connected to the non-safeguard loop of the CCWS and can be isolated in case of any leakage in the filter/demineralizer skid. The CCWS could be realigned to supply flow to Spent Fuel Pump (SFP) Cooler-02, in case of a failure of CCWS supply to SFP-01 cooler. Interruption of flow due to leakage in the non-safeguard loop of CCWS will not prevent the CCWS from performing its safety functions as the safeguards loop auto-isolation feature protects the safeguards inventory.

Evaluation Number
SE-92-048

Activity Title:

Clarification of CPSES Qualification Maintenance Program
(LDCR SA-92-644)

Description of Change(s):

This activity revises FSAR Appendix 3A Section 2.4 discussion of periodic surveillance of Class 1E equipment. The changes reflected the equipment history and trending programs at CPSES to identify potential Environmental Qualification (EQ) degradation and failures including periodic maintenance/surveillances. This activity incorporates the NRC basis for acceptance stated in . The changes provide additional clarification and requirements for documentation.

Summary of Evaluation:

All Class 1E equipment will be affected by implementation of this change. Certain non-Class 1E and RG 1.97 instrumentation subject to 10CFR50.49 will also be affected. This activity introduced no new failure modes nor does it impact accidents described in the Licensing Basis Documents. Implementation of this activity does not represent a new unanalyzed type of accident nor affects equipment important to safety because this activity neither adds, removes, nor replaces any plant equipment and does not affect the safety related function of any equipment. This activity only clarifies the CPSES EQ maintenance program.

Evaluation Number
SE-92-049

Activity Title:

Temporary Installation of Blank Flange at Containment Isolation Purge Valves

Description of Change(s):

This temporary modification (TM) provides for the installation of blind flanges at two Containment isolation valves (1-HV-5536 and 1-HV-5538). This change was required to bring these penetrations in compliance with Technical Specification Sections 3/4.6.1.7 and 3/4.6.3 and Technical Specification Interpretation No. 14, Rev. 1 by way of a blank flange and subsequent demonstration to meet the specified leakage limits.

Summary of Evaluation:

The potential failure modes due to the addition of a blind flange have been evaluated and there are none that can be the initiating event of a Licensing Basis Accident. The Containment penetrations are required to remain intact and prevent leakage in excess of the LLRT acceptance criteria. During modes 1, 2, 3 and 4 these 48" valves are required to be locked closed. This temporary modification will not affect the required valve position and will provide additional assurance that the penetration is in compliance with Technical Specification 3/4.6.1.7. The weight of this flange is the only contribution to a failure mode involving a seismic event. This factor has been evaluated and all stresses for the penetrations and valves were found to be within FSAR and Code allowables. In effect, the penetration sealing surface is being transferred from the valve to the resilient double O-ring gasket material of the blank flange. The leakage integrity tests with a maximum allowable leakage rate for the Containment isolation valves and attached blind flange assures that the Containment penetration may be considered operable.

Evaluation Number
SE-92-050

Activity Title:

Defeat of the Extraction Steam Isolation Signals on High-High Drip
Pot Levels (DM 92-026, LDCR SA-92-630)

Description of Change(s):

This activity removes the high-high drip pot level signals on extraction steam piping which automatically isolate the turbine from the feedwater heaters. It has been found that this isolation can lead to secondary side transients, loss of heater drain flow and eventually turbine runbacks.

Summary of Evaluation:

The potential for turbine trip due to water induction was evaluated. It was determined that operator action to manually blowdown the drip pot upon receipt of a drip pot high level alarm, was sufficient to protect the turbine from water induction. The removal of the automatic isolation does not effect the ASME requirements for prevention of turbine water induction.

The potential for reduction or increase in feedwater temperature was also evaluated. Based on the overall reduction in secondary side transients expected as a result of this activity, the probability for increase or decrease of feedwater temperature has been reduced.

Evaluation Number
SE-92-052

Activity Title:

Revision to Offsite Dose Calculation Manual (ODCM) to Accommodate
Unit 2 Operation (LDCR 00-92-002)

Description of Change(s):

The ODCM is revised to incorporate Unit 2 radioactive effluent release pathways and effluent monitoring instrumentation. Revisions are made, where applicable, to release limits and calculational methodologies to support two-Unit operations. In addition, several other changes unrelated to Unit 2 are made. Of these, the most significant changes are deletion of the methodologies for determining instantaneous setpoints for the stack PIG monitors' particulate and iodine channels, revision of the methodology for performing 31-day dose projections, and addition of provisions for establishing a flow rate setpoint for liquid effluent releases.

Summary of Evaluation:

The ODCM establishes requirements to provide for the monitoring, sampling and analysis of effluent discharges and establishes effluent release limits and calculational methodologies to demonstrate compliance with the limits. A failure of required effluent monitoring instrumentation, a failure in the effluent sampling and analyses program, or an error in dose or setpoint calculations could result in an unmonitored release and/or result in exceeding effluent discharge limits.

The proposed changes to the ODCM only impact the program for monitoring radioactivity in routine effluent releases for the purpose of demonstrating compliance with effluent release limits and accounting of radioactive material released. The changes will not affect the actual concentrations of radioactive materials in discharges and therefore could not create the possibility of an accident different from any accident evaluated in Licensing Basis Documents. Also, there are no accidents or malfunctions of equipment important to safety described in Licensing Basis Documents which involve the structures, systems components and/or system parameters described in this change which could be affected by implementation of the proposed activity. The credible potential failures described in the Safety Evaluation could only result in an unmonitored release and/or exceeding routine effluent release limits due to a failure to monitor or sample and analyze releases, or an error in dose or setpoint calculations. This type of failure does not impact other plant equipment and could not create the possibility of a malfunction of equipment important to safety different from any evaluated in the Licensing Basis Documents.

Evaluation Number
SE-92-053

Activity Title:

Revise the Emergency Diesel Generator Loading Tables to Reflect the Addition of Battery Packs to Lighting Panels (LDCR SA-92-635)

Description of Change(s):

This activity revises FSAR Tables 8.3-1A, 8.3-1B, and 8.3-2 to reflect changes in Emergency Diesel Generator loading due to the addition of battery packs to emergency lighting panels in the Auxiliary Building and in the Control Building. These panels are fed from Class 1E MCCs.

In the event of a LOCA or loss of offsite power, the above Class 1E MCCs are fed from the Unit 1 Diesel Generator. The addition of battery packs to lighting panels affected the Emergency Diesel Generator loading tables and therefore the worst case loading (loadout condition) of a Diesel Generator has increased from 6236.5kw to 6237.9kw due to the additional load of 1.4kw. The new loading of 6237.9kw is less than the rated capacity of 7000kw.

This activity also reflects the reconnection of control cables to the Unit 2 safety injection circuit. In the event of Unit 1 loss of offsite power with Unit 2 LOCA, Primary Plant Ventilation exhaust fans and Engineered Safeguard Features (ESF) heaters will start after 40 seconds instead of the normal 120 seconds.

Summary of Evaluation:

Diesel Generator load sequencing Table 8.3-2 was changed to show transfer of Primary Plant Ventilation exhaust fans' and heaters' load of 244.2kw from 120 second demand load of 255.2kw (new load 11kw) to 40 second demand load of 595.3kw (new load 839.5kw), but this transfer of load will not change the total steady state load of 6237.9kw to the Diesel Generator.

Implementation of this activity does not introduce any additional credible potential failure modes for the affected structures or systems. The accident analysis described in Section 15 of the FSAR does not involve the Emergency Lighting System. It does involve the Primary Plant Ventilation system and ESF filtration units, but there is no adverse impact to the operability of these systems.

Evaluation Number
SE-92-054

Activity Title:

Increase Time Period for Switching Inventory of Gas Decay Tanks (GDT) in Gaseous Waste Processing Syst. (GWPS) (LDCRs SA-92-605, 639 & 658)

Description of Change(s):

The GWPS is operated such that only one of the eight GDTs receives gaseous effluents at a time. The gaseous effluents now will be directed to the same GDT for up to 30 days rather than being switched daily to another GDT. This will provide increased flexibility for system operation and reduce operator exposure time. This change in the time period for switching GDT inventory is also reflected in changes which revise FSAR Sections 11.1.4, 11.3.2.1.4 and Table 15.7-2.

Summary of Evaluation:

The GWPS is a part of the Radioactive Waste Management System. The components that could be affected by the implementation of this activity are the Gas Decay Tanks (GDTs) and their associated piping. The affected GWPS parameter is the inventory of radioactive gases in the GDTs. Control Room habitability could also be affected by the potential release of GDT inventory. Increasing the length of time between the Decay Tank switching operation will result in a higher concentration of radioactive inventory in a single tank for a short period of time.

This activity will have no effect on the structural or metallurgical characteristics of the system or components and there will be negligible effects on tank pressure or temperature parameters. No credible potential failure modes are introduced by implementation of this activity. Implementation of this activity does not increase the likelihood of a potential failure.

The expected concentration and dose due to a postulated rupture of a GDT after 40 years of normal operation with 1% failed fuel (FSAR Section 15.7.1) at any switching time is less than that specified in Technical Specification 3.11.2.2 and the resulting dose is within 10CFR100 guidelines. This is documented in Calculation ME-CA-6100-3026 Rev. 0. Calculation ME-CA-6100-3209 documents that Control Room habitability concerns have been analyzed for this activity; potential failures of GDTs and associated piping produce negligible increases in radiation doses which are within the regulatory guidelines of GDC-19.

To prevent the Licensing Basis accident described in FSAR Section 15.7.1, the GDTs and associated piping are required to contain the radioactive inventory stored within them. The implementation of this activity will not affect the probability of failure of the GDTs and their associated piping to contain the radioactive inventory stored within them.

Evaluation Number
SE-92-056

Activity Title:

Removal of the Credit in the Small Break LOCA Analysis for the Turbine Driven Auxiliary Feedwater Pump

Description of Change(s):

This activity removes the credit taken for the actuation of the Turbine Driven Auxiliary Feedwater Pump (TDAFWP) in the analysis of a small break LOCA.

The previous small break LOCA analysis took credit for the TDAFWP actuation on a Safety Injection (SI) signal. However, the TDAFWP actuation on an SI is not part of the CPSES system configuration. The revised small break LOCA analysis, with credit for the TDAFWP removed, resulted in an increase in calculated maximum peak cladding temperature (PCT).

Summary of Evaluation:

Based on a reduced AFW flow, a PCT penalty of 99.1 degrees F for the small break LOCA analysis and no PCT penalty for the large break LOCA analysis was assessed. In both cases the final calculated maximum PCT remains well below the 10CFR50.46 limit of 2200 degrees.

Evaluation Number
SE-92-057

Activity Title:

Incorporation of Unit 2 Information into the CPSES Fire Protection Report (LDCR FP-92-002)

Description of Change(s):

This activity revises the Fire Protection Report (FPR) Sections I, II, IV and V. The purpose of the changes is to incorporate Unit 2 information into the FPR prior to Unit 2 licensing and operation and to reflect the operational status of the Unit 2 Fire Protection Program in the FPR recognizing CPSES as a dual Unit plant. Additionally updates the FPR to correct and clarify existing text. The Unit 2 Fire Protection Program is consistent with the philosophy utilized for Unit 1.

Summary of Evaluation:

Implementation of this activity will have no impact on structures, systems or components important to safety, and no credible potential failure modes for those structures, systems or components can be introduced. The accidents and malfunctions described in the Licensing Basis Documents are not affected by implementation of this activity. This activity will not adversely affect the ability to achieve and maintain safe shutdown of Unit 1 in the event of a fire.

Evaluation Number
SE-92-058

Activity Title:

Closure of Charging Pump Suction Header Manual Vent Valves
1-CS-0112, 0113 and 0114

Description of Change(s):

This change will revise the operating status of the suction vent piping manual isolation valves from normally open to normally closed. Manual venting will be performed to preclude any possibility of gas accumulation until new isolation valves (1-HV-8220 and 8221) are installed which will isolate flow in both directions. The change is necessary due to the orientation of the vent valves. The change will be implemented on the suction vent piping on the centrifugal and positive displacement charging pumps.

Summary of Evaluation:

Implementation of this change will preclude the potential for gas binding of the charging pumps which could occur due to dissolved gases coming out of solution and collecting in the lower pressure suction piping. This activity will close, and maintain closed, the manual isolation valves in order to ensure that the valves will remain closed after receipt of a closure signal.

Changing the position of the valves from normally open to normally closed does not increase the probability of any accident evaluated in the licensing basis, does not create any new type of accident, nor does it impact on the radiological consequences of the accidents evaluated in the licensing basis.

Evaluation Number
SE-92-059

Activity Title:

Revises the Wastewater Management System (WMS) Description in FSAR Section 9.2.8 to reflect As-Built Design & Operation (LDCR SA-92-597)

Description of Change(s):

The Wastewater Management System (WMS) provides waste collection, retention, conventional pollutant treatment, and discharge of normally non-radioactive wastewaters in accordance with the regulatory requirements of the Texas Water Commission (TWC) and the National Pollutant Discharge Elimination System (NPDES) permit. This change updated, corrected, or clarified the description of the Wastewater Management System, as discussed in the FSAR, as it operates within the guidelines required to ensure wastewater discharges are within environmental and regulatory limits.

Summary of Evaluation:

The Wastewater Management System is not a safety related system or considered part of the Radwaste Management System. This change does not increase the probability of any accident evaluated in the licensing basis, does not create any new type of accident, nor does it have any impact on the radiological consequences of the accidents evaluated for the licensing basis. The only potential type of event that could occur with the WMS is if a release occurred that was outside environmental or regulatory limits.

Evaluation Number
SE-92-060

Activity Title:

Update to the FSAR to Describe How Condenser Leaks are Monitored with the Existing Hotwell Conductivity and Sodium Analyzers; LDCR SA-92-611

Description of Change(s):

This activity deletes the FSAR reference to condenser salinity trough conductivity meters and adds a reference to sodium analyzers. Also the discussion of the condensate polishing demineralizer is revised to reflect that the polisher is not capable of maintaining the quality of condensate/feedwater within specifications with a 6 gpm cooling water inleakage.

Summary of Evaluation:

The previous salinity trough conductivity probes could not be inspected, cleaned, changed or calibrated as designed. Also, since the probes were often partially exposed to air instead of being fully submerged, the indications were unreliable and effectively useless. The installed sodium analyzers and hotwell conductivity monitors are effective for monitoring condenser in leakage.

The capabilities of the condensate polishing demineralizer were incorrect as previously stated. Actions taken to maintain condensate chemistry within required limits or mitigating actions should chemistry limits be exceeded, are in accordance with plant procedures.

Credit was not taken for the operation of the above systems in any previously analyzed accident and therefore these changes will not affect the outcome of any analyzed accident.

Evaluation Number
SE-92-062

Activity Title:

LDCR SA-92-588; Revises FSAR Section 11.5 Regarding Process and Effluent Radiological Monitoring and Sampling Systems

Description of Change(s):

Supports revision to FSAR Section 11.5 regarding changes to descriptions of process and effluent radiological monitoring and sampling systems for consistency with current plant design and operating practices. The changes include:

- o Revision to description of the waste gas radiation monitor to indicate that the information provided by the monitor is used for determination of gross gaseous activity, not gas distribution among the tanks.
- o Revision to the discussion of the Containment Air Monitoring System leak detection function to reflect the actual leak detection capabilities of the monitor.
- o Removal of references to the RM-21 Report Processor Computer, and replacement with references to a new meteorological monitoring computer.

Summary of Evaluation:

Because the FSAR currently states that the Waste Gas Monitor provides the capability to determine the inventory and the radioactive gas distribution among the Waste Gas Decay tanks, the Waste Gas system leak or failure accident described in FSAR Section 15.7.1 could be affected. Revision of the discussion of the use of the Waste Gas Monitor to state that the monitor provides an indication of the gross gaseous activity in the system will not affect the radiological consequences of the accident discussed above, because the Waste Gas Monitor indication is not relied upon to maintain the Waste Gas Decay tanks within the inventory limit established in the Technical Specifications. The inventory limit is monitored by collection and analysis of grab samples. Reference: SE-91-082 regarding meteorological report processor computer upgrade.

Evaluation Number
SE-92-063

Activity Title:

LDCR SA-92-594; Revises FSAR Section 11.4 to Reflect Current Plant Design and Operating Practices

Description of Change(s):

This revision to the FSAR affects the description of the Solid Waste Management System and practices pertaining to solid waste handling, processing and storage. Specifically, descriptions of and practices associated with the waste balers and the filter transfer cask are affected.

Summary of Evaluation:

This activity does not involve an Unreviewed Safety Question. The proposed changes only affect activities related to solid waste processing and handling. The affected systems are not safety related and do not affect the safe shutdown of the plant or the operation of other systems which are required to safely shut down the plant. The changes will not affect the actual volumes or activity of radioactive waste generated. Additionally, there are no failure modes identified, so the possibility of an accident different from any accident evaluated in Licensing Basis Documents is not created. Directly references SE-91-068 Rev. 0 and SE-91-062 Rev. 3.

Evaluation Number
SE-92-064
Revision 1

Activity Title:

Revision of Documents, Procedures and Programs for Implementation of
10CFR20, Sections 20.1001 Through 20.2401

Description of Change(s):

CPSES Radiation Protection programs, procedures and related documents are revised for implementation of revisions to 10CFR20, "Standards for Protection Against Radiation." These revised regulations are given in 10CFR20, Sections 20.1001 through 20.2401. Numerous documents and procedures are affected.

Summary of Evaluation:

The changes for implementation of the revised 10CFR20 are acceptable and do not affect plant safety. The changes affect Radiation Protection programs for surveillance and monitoring of radiological conditions, exposure monitoring and control, effluent monitoring and administrative controls and reporting requirements. Documents and calculations related to radiological evaluations of the plant design are also affected. There are no required physical changes or modifications to plant systems, components or structures. Changes will impact limitations on concentration of radioactive materials in liquid effluents. These changes do not affect plant safety.

Changes to 10CFR20 also affect the acceptance limits for design evaluations of a liquid radioactive waste tank rupture and design estimates of airborne concentrations in normally occupied areas of the plant during normal operations to evaluate adequacy of the plant ventilation system.

Evaluation Number
SE-92-065

Activity Title:

Revisions to Boron Recycle and Liq. Rad. Waste Management Syst. Design
& Operating Practices (LDCRs SA-92-601, 602, 605, 606, 657 & 669)

Description of Change(s):

The changes to FSAR Sections 9.3.3, 9.3.4.2, 11.1, 11.2 and 11A revise descriptions of the boron recycle and liquid radioactive waste management systems. The changes were made to be consistent with the current plant design and operating practices. The impact of these changes was assessed by evaluating the potential liquid releases from the plant and exposure pathway radiation doses during normal operation. The following systems, components, and system parameters could be affected by this activity:

- Liquid Waste Processing System (LWPS)
- Boron Recycle System (BRS)
- Filter Demineralizer System (FDS)
- Gaseous Waste Processing System (GWPS)
- Primary Plant Ventilation System (PPVS)
- BRS evaporator, piping, and concentrates
- Collection, holdup, and discharge tanks and piping [Floor Drain Tanks (FDTs) I, II, and III; Laundry Monitor Tank; Chemical Drain Tank; Waste Conditioning Tank; Spent Resin Storage Tank]
- Processing system flow rates
- Radioactive system flow rates
- Radioactive liquid effluents and corresponding radiation doses
- Control Room Habitability

Summary of Evaluation:

The safety evaluation reviewed the accidents and malfunctions of equipment important to safety that could be affected by these changes. The accidents and malfunctions that were considered were: radioactive liquid waste system leak or failure; postulated radioactive release due to liquid tank failures; and radioactive gas waste system leak or failure. The SE addressed the radiological consequences of each accident for changes to the Filter Demineralizer System, recycle/release mode of operation, Boron Recycle System, and operating practices for flexibility. The potential radiological consequences from implementing the activities are enveloped in the existing FSAR Chapter 15 analyses. The SE concluded that the changes do not increase the probability of any accident evaluated in the licensing basis, do not create any new type of accident, nor do they have any impact on the radiological consequences of the accidents evaluated for the licensing basis.

Evaluation Number
SE-92-066

Activity Title:

LDCR SA-92-658; Revises FSAR Section 11.3 to Reflect Current Plant Design & Operating Practices Regarding Gaseous Waste Processing System

Description of Change(s):

This revision to the FSAR affects the Gaseous Waste Processing System practices pertaining to gaseous waste handling, processing and storage. Specifically, descriptions of and practices associated with the waste gas decay tanks, venting of the waste processing, floor drain, and boron recycle evaporators, and venting and purging of the Volume Control Tank are affected.

Summary of Evaluation:

This activity does not involve an Unreviewed Safety Question. This activity has no effect on the structural or metallurgical characteristics of the system or components involved. The changes in operational practices such as utilizing different flow paths or storage locations do not affect the structure, system or component probability of failure. The changes will not affect the actual volume or activity of gaseous radioactive waste generated. The proposed changes to the FSAR will continue to provide assurance that the acceptance limits for gaseous radioactive waste processing are achieved. The proposed changes do not change or modify the acceptance limits.

Evaluation Number
SE-92-067

Activity Title:

Replace Solenoid Operated Globe Valves in High Point Vent Line for Charging Pumps' Suction with Gate Valves (DM-91-059, LDCR SA-92-626)

Description of Change(s):

Replace the existing solenoid operated globe valves (SOVs) with the solenoid operated gate valves (1-HV-8220,8221) in the high point vent line from the suction piping of the Centrifugal Charging Pump and Positive Displacement Pump to the gas space of the Volume Control Tank (VCT). The SOVs, when closed, are required to isolate the flow in the forward and reverse flow directions. The existing SOVs are not designed or oriented to isolate against flow in the (valve) reverse flow direction. The active function of these valves is to prevent gas from being drawn into the pump suction when the Charging Pump suction is transferred to the Refueling Water Storage Tank (RWST) during a safety injection. This could possibly result in common mode failure of the Centrifugal Charging Pumps due to gas binding, as was described in NRC Information Notice IN 90-64. These SOVs are also required, when closed, following receipt of a safety injection, flux doubling, or VCT low-low level signal, to isolate against flow in the (valve) forward direction to prevent overpressurization of the VCT during Emergency Core Cooling System (ECCS) High Head Safety Injection (HHSI) recirculation. This change will prevent the possibility of either gas entrainment into the Centrifugal Charging Pump suction or VCT overpressurization.

Summary of Evaluation:

Replacement of the new SOVs will meet the design requirements and will perform the "active" functional requirement of preventing gas from being drawn into the suction when the Charging Pump suction is transferred to the RWST. Implementation of this activity will therefore prevent Charging Pump and other associated equipment operability, reliability and/or integrity problems that could result from gas entrainment into the pump suction. Implementation of this activity affects neither the availability of the borated water sources (either the Boric Acid Storage Tank or the RWST) nor the availability of the required boron injection flow paths.

Evaluation Number
SE-92-070

Activity Title:

Update of the Fire Protection Report (FPR) Section III & FSAR Section 7.4 to Reflect Unit 2 Information (LDCRs FP-92-001 & SA-92-672)

Description of Change(s):

The activity updates Section III Of the FPR (Fire Safe Shutdown Analysis Report Section of the FPR) and the relevent information in FSAR Section 7.4 to reflect dual Unit operation.

Summary of Evaluation:

Incorporation of Unit 2 operations into the FSAR introduces a new factor into the dual Unit safe shutdown analysis. The ability to provide system support and achieve and maintain safe shutdown of both Units in the event of a fire in either Unit is addressed in the Simultaneous Shutdown Analysis (SSA). Administrative controls and Abnormal Operating Procedures preclude accidents, malfunctions, or failure modes due to cross-connected trains or Units that are not analyzed in the SSA or Fire Safe Shutdown Analysis (FSSA). The changes do not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire. Based on the evaluation, implementation of the activity does not involve an unreviewed safety question.

Evaluation Number
SE-92-071

Activity Title:

Open Ventilation Chilled Water Valve to Provided Makeup Water and
Suction Head to Subsystem 2 Recirculation Pumps

Description of Change(s):

This change involves the opening of the manual isolation valve from the ventilation chilled water surge tank to chilled water recirculation pumps in Subsystem 2 of the ventilation chilled water system. This will provide makeup water and suction head from the common surge tank to the Subsystem 2 recirculation pumps during startup testing and for two-Unit operation.

Summary of Evaluation:

The draining of the common ventilation chilled water surge tank could occur due to leakage or improper operation of Subsystem 2; however, the operation of Subsystem 1 recirculation pumps would be unaffected because adequate net positive suction head would be maintained. Recirculation pumps are adequately protected against cavitation. Subsystem 1, which currently serves all Unit 1 and Common loads will remain operable. Unit 1 Containment average temperature limitations will not be challenged.

There are no malfunctions or equipment important to safety which could be affected by the implementation of the activity. No licensing basis accident could be initiated by the loss of ventilation chilled water.

Evaluation Number
SE-92-072

Activity Title:

Modification of the Waste Water Management System (DM 91-054,
LDCR SA-92-667)

Description of Change(s):

FSAR Section 9.2.8, Waste Water Management System, has been revised to describe the modification to the Low Volume Waste (LVW) Treatment Facility. The modification divided the existing Total Retention Pond into two 1.75 million gallon settling ponds, a 6.7 million gallon emergency/overflow pond, and a one million gallon metal cleaning waste (MCW) pond (a non-LVW facility). The three LVW ponds are interconnected but isolated from the MCW pond. Two recirculation pumps have been installed to interconnect the LVW ponds and tie into the existing Waste Water Management System inlet and discharge piping. The ponds will be covered with synthetic liners and a leachate collection system. Additionally, a new API oil separator and surge basin has been installed.

Summary of Evaluation:

This modification was implemented to install synthetic liners for the settling pond which will be a future environmental requirement, to enable more efficient treatment of the waste water and to prevent formation of algae growth. The equipment added by this modification is non-safety related and does not affect any structure, system, component or parameter which is important to safety nor creates the possibility of an accident, malfunction or radiological consequence not previously analyzed.

Evaluation Number
SE-92-073

Activity Title:

LDCR SA-92-587; Clarification of EEQ Status of Various Limit Switches, Solenoid Operated Valves and Pressure Transmitters

Description of Change(s):

As a result of a review of the Environmental Equipment Qualification (EEQ) Program some minor corrections are required to several sections of the FSAR. Inconsistencies were found in a review of NUREG 0588 classifications when compared to design documents. These inconsistencies were reviewed and corrected as required. As part of this review it was noted that some components were over classified. LDCR SA-92-587 revises the FSAR to bring component qualification to the required level.

Summary of Evaluation:

Chemical & Volume Control system (CVCS) valve position indication for valves in the Letdown system, Feedwater sample isolation valve position indication, Feedwater isolation bypass valve position indication, Turbine impulse chamber pressure transmitters, High Pressure Turbine steam line stop valve position indication, limit switches and SOVs on the Feedwater flow control and bypass valves are either qualified for the environment, protected from the environmental conditions or analyzed as acceptable as is. Note 8 in Table 7.5-7 and Note 22 in Table Q32.110-3 are clarified to show the application is to Non-1E devices and that when the instrument function is required, the device is in a mild environment.

The change to the EEQ status of the components identified in this Safety Evaluation does not affect the acceptance criteria given in the Technical Specifications. In each case the device is qualified for the conditions which exist before and during the time function required for plant safety. The components outside the normally heated boundaries of the plant (Feedwater flow control and bypass valves and devices on the Main Turbine) will function as required during plant operation. The Feedwater flow control and bypass valves are currently protected from the low temperature by a temporary enclosure. This enclosure will not be required if solenoids are installed with qualifications for low temperatures. The Main Turbine devices are located in areas where sufficient heat is given off from the plant to maintain a qualified environment. Some difficulties could be incurred during startup if the ambient was below 32 degrees F. This does not pose a threat to plant safety or the acceptance criteria required for meeting Technical Specifications.

Evaluation Number
SE-92-074

Activity Title:

Temporary Modification to Set Up a Nitrogen Gas Feed to the
Demineralized Water Storage Tank

Description of Change(s):

A nitrogen gas supply was set up to the demineralized water storage tank level sensing tube. The nitrogen gas supply was necessary to create a nitrogen atmosphere above the water in the demineralized water storage tank, reduce the amount of carbon dioxide that will dissolve in the water, and reduce the number of resin change outs in the condensate polishing system. This temporary modification is a test to determine whether adding a nitrogen blanket to the tank would have a significant effect on the amount of carbon dioxide entering the condensate system.

Summary of Evaluation:

The Demineralized Water Storage Tank (DWST) will be the only equipment affected by this modification. The DWST is completely isolated from any safety related system. No equipment that is important to safety is affected by this temporary modification. The temporary addition of the nitrogen supply to the DWST does not increase the probability of any accident evaluated in the licensing basis, does not create any new type of accident, nor does it have any impact on the radiological consequences of the accidents evaluated for the licensing basis.

Evaluation Number
SE-92-077

Activity Title:

Incorporation of Unit 2 Fire Protection Information and Minor Changes for Information Applicable to Units 1 and 2 into FSAR (LDCR SA-92-674)

Description of Change(s):

Sections 1.2.2 and 9.5.1 of the FSAR describe the CPSES Fire Protection Program for Unit 1 operation during construction completion for Unit 2. This change revises the description of the Fire Protection Program to reflect both Units in operation. Also, this change clarifies sprinkler system coverage in the Unit 1 electrical switchgear rooms. Finally, this change introduces two minor changes applicable to both Units. It changes a reference of a specific manufacturer of fiberglass insulation to a generic reference and identifies a minor amount of non-IEEE 383 cabling inside Containment that is associated with the Loose Parts Monitoring system.

Summary of Evaluation:

Incorporation of Unit 2 Fire Protection information into the Fire Protection Report (FPR) has been implemented previously via LDCRs FP-92-001 and FP-92-002 including accompanying 10CFR50.59 Evaluations SE-92-070 and SE-92-057.

The other changes implemented through this activity present no new failure modes for the plant or any plant systems. There are no accidents or malfunctions of equipment important to safety impacted by these changes. There are no radiological consequences or accidents. The subject changes do not reduce the margin of safety or acceptance limits for plant structures as described in the Technical Specifications.

Evaluation Number
SE-92-078

Activity Title:

Revision to EPP-303, "Operation of Computer Based, Emergency Dose Assessment," Rev. 8 and Removal of Associated Forms

Description of Change(s):

Section 7.2 of the CPSES Emergency Plan discusses the use of the Emergency Dose Assessment Model (EDAM) for dose assessment in the case of an emergency at CPSES. Emergency Planning has contracted to develop a new dose assessment system for Comanche Peak called Offsite Release Consequence Assessment System (ORCAS). ORCAS will take the place of EDAM starting July 1, 1992.

Summary of Evaluation:

This change does not decrease the effectiveness of the Emergency Plan. ORCAS is an enhanced version of EDAM and will therefore improve our dose assessment capability.

ORCAS has no direct affect on any plant structures, systems or components and/or system parameters; therefore, there are no credible potential failure modes attributed to the changing of the dose assessment method from the one described in the Emergency Plan. This activity does not involve an Unreviewed Safety Question.

Evaluation Number
SE-92-080

Activity Title:

Delete Alarm for the Auxiliary Feedwater Pump Turbine Steam Supply
Line Drip Pot Level Switch (DM 90-371, LDCR SA-92-678)

Description of Change(s):

The Auxiliary Feedwater Pump Turbine (AFWPT) steam supply line drip pot 1-MS-27, level valve 1-LV-2383 and the level switch 1-LS-2383 will be electrically disconnected. Level switch 1-LS-2383 will be isolated from the process flow. Air to the level valve 1-LV-2383 will be isolated. The hand switch and indication for the level valve 1-LV-2383 will be removed from the Main control board. This activity affects the Main Steam, Auxiliary Feedwater, and the Instrument Air Systems. Implementation of this activity will not require a plant outage.

Summary of Evaluation:

The activity affects the Main Steam, Auxiliary Feedwater and the Instrument Air Systems. Failure of steam trap CP1-MSSTD30 in the AFWPT steam supply drain line from drip pot 1-MS-27 would result in condensate backing up into the AFWPT main steam supply line. Because the AFWPT can pass large amounts of water, as demonstrated in the pre-operational test during a cold start of the Auxiliary Feedwater Pump, the drains are not required for the AFWPT to perform its safety related function. Therefore implementation of this activity will not affect the probability of the failure of any structure, system, or component to perform its safety related function. This activity does not constitute an unreviewed safety question or change any Technical Specification.

Evaluation Number
SE-92-081

Activity Title:

Revise Analysis of an Inadvertent Steam Release Event to Include
Inadvertent Actuation of Steam Dump System (LDCR SA-91-108)

Description of Change(s):

In the original analysis, the steam dump solenoid valves were assumed to be Class 1E. Operation of the valves was credited for mitigation of postulated accidents. However, the solenoid valves are non-Class 1E which has required expansion of the analysis.

Summary of Evaluation:

No events rely on the steam dump valves for mitigation, but some events assume that the steam dump valves are closed and remain closed to prevent cooldown. The Inadvertent Opening of a Steam Generator Relief or Safety Valve is a more limiting ANS Condition II event if the steam dump valves are assumed open, but is still bounded by the Steam Line Break Event because the steam dump valves are downstream of the Steam Generator outlet nozzle flow restrictors, which would limit the steam flow to less than or equal to that in the Steam Line Break Event. The radiological consequences would also be less because the Steam Line Break Event assumes a 5% fuel failure. Re-evaluation of the ANS Condition IV Main Steam Line Break event was not required because the steam dump valves can be credited even though they are non-safety grade equipment as allowed by NUREG-0138 (Issue 1, Treatment of Non-Safety Grade Equipment in Evaluation of Postulated Steam Line Break Accidents).

Evaluation Number
SE-92-082

Activity Title:

Revise FSAR to Reflect Changes to Power Feeds for Fire Detection Panel 2-LV-33 and Annunciator-Logic Cabinet 2-CR-09 (LDCR SA-92-683)

Description of Change(s):

Since existing cable NK006666 was not long enough to terminate at circuit 11 in common AC distribution panel XEC2 (to implement modification DM 92-054 Rev. 0) it was spliced with an existing spare in XEC2 to accomplish the termination at circuit 11. The spare cable was renamed NK006666A. Final Safety Analysis Report (FSAR) Figure 8.3-15A sheet 1 was revised to show the splice and renamed cable.

Modification DM 92-055 Rev. 0 requires determination of cable NK00666619 at circuit 36 of XEC2 thus deleting Unit 2 annunciator-logic cabinet 2-CR-09 load being fed from the common AC distribution panel XEC2. This reduces the Emergency Diesel Generator accident load, requiring a change to FSAR Diesel Load Tables 8.3-1A, 1B and 2 and Figure 8.3-15A sheet 1.

Summary of Evaluation:

The splice being added in panel XEC2 meets the requirements of Specification ES-100. This cable configuration at the panel was evaluated in the calculation for sizing, voltage drop, short circuit and breaker coordination and found acceptable. No potential failure modes have been introduced and the added diesel load was already included in FSAR Diesel Load Tables; therefore no unreviewed safety question exists.

The removal of the Unit 2 annunciator-logic cabinet from XEC2 lowers the accident load on the Emergency Diesel Generators and avoids having a non-safety related load powered from Class 1E MCC XEB2-2. Deletion of this load does not create any potential failure mode; therefore no unreviewed safety question exists.

Evaluation Number
SE-92-083

Activity Title:

Installation of a Sample Sink and Associated Components for Sampling
of the Boric Acid Blender (DM 91-134, LDCR SA-92-684)

Description of Change(s):

A sample sink is being added on the 822'-0" elevation of the Auxiliary Building in Valve Operating Room 209 in order to provide for adequate sampling of the Boric Acid Blender. Isolation valves, tubing, and sampling valves are being added from the sample point to the new sink. A demineralized water line is being added at the sink for flushing purposes. This activity will reduce the risk of personnel contamination and spills while improving sampling capability. The current sampling of the Boric Acid Blender is done via a drain valve that is not intended for sampling.

Summary of Evaluation:

The portions of the Chemical and Volume Control System affected by this activity is along a boration/dilution pathway to the Reactor Coolant System. The implementation of this activity will not impact either of these functions in any way. All safety significant performance characteristics remain unchanged. There are no accidents or malfunctions of equipment important to safety as described in the Licensing Basis Documents that could be effected as a result of implementing this activity.

Evaluation Number
SE-92-084

Activity Title:

Unit 2 Component Cooling Water Supply to Spent Fuel Pool Heat
Exchanger 02

Description of Change(s):

This change involves utilizing the Unit 2 Non-Safeguards Component Cooling Water (CCW) loop to supply cooling water to Spent Fuel Heat Exchanger 02 by opening valves 2CC-0312 and X-HV-4649. These valves are designated locked closed (LC-2) during Unit 2 construction. This change is proposed for interim use while performing maintenance which prevents use of the Unit 1 Non-Safeguards CCW loop. This change is only applicable until Unit 2 CCW is declared OPERABLE, at which time the LC-2 designation will be removed and the normal alignment will have the valves opened. The systems affected by the implementation of this change are the Spent Fuel Storage and the Spent Fuel Pool Cooling and Cleanup System.

Summary of Evaluation:

The function of forced spent fuel cooling is to maintain the design and licensing basis normal temperature limit of 140 degrees F. With normal spent fuel pool temperatures below 100 degrees F, forced cooling may be secured for long periods of time without exceeding the normal temperature limit. Therefore, when Unit 2 CCW is supplying the on-line spent fuel heat exchanger, its continuous operation is not necessary. The potential failure mode for this change is exceeding the normal temperature limit of 140 degrees F and the accident to be considered is the Fuel Handling Accident. However, exceeding the normal temperature limit cannot initiate a fuel handling accident. There are no radiological consequences which result from abnormal temperatures since the makeup water provisions for the spent fuel pool are not impacted by the potential failure mode. Therefore, this change does not increase the probability of any accident evaluated in the licensing basis, does not create any new type of accident, nor does it have any impact on the radiological consequence of the accidents evaluated for the licensing basis.

Evaluation Number
SE-92-086

Activity Title:

Installation of Independent Heater Drain Pump Recirc. Lines & Transmitters on Heater Drain Tank 3-1 & 3-2 (DM 91-092 R.1, LDCR SA-92-691)

Description of Change(s):

This activity involves the following:

1. Reconfigures the Heater Drain Pump recirculation lines by adding an independent recirculation line upstream of the pump discharge check valves to eliminate the potential for loss of minimum recirculation flow to the pumps if the check valves should close due to condensate header pressure exceeding Heater Drain Pump pressure.
2. Adds flow transmitters to the recirculation lines, pressure transmitters to Heater Drain Tanks 1-3-1 and 1-3-2, and a temperature transmitter on the outlet of Heater Drain Tank 1-3-1. Also replaces pneumatic level transmitter for Heater Drain Tanks 1-3-1 and 1-3-2 with an electronic transmitter.
3. Relocates the manual/auto station for the Heater Drain Pump discharge valve from the Turbine Building to the Control Room to improve manual operation of the valve due to the proximity of system monitoring instrumentation available.

Summary of Evaluation:

This activity was reviewed for its impact on Reactor trips caused by a turbine trip. The addition of an independent recirculation line, added/improved monitoring instrumentation, and relocation of the manual/auto station, all improve the performance and reliability of the Heater Drain System, thus reducing the probability that a failure of this system will lead to a Reactor trip.

Evaluation Number
SE-92-087

Activity Title:

Surface Water Pretreatment Hypochlorination Upgrade (DM 92-028,
LDCR SA-92-692)

Description of Change(s):

The existing sodium hypochlorite metering pumps in the Surface Water Pretreatment System have been replaced with similar, but smaller pumps. The existing pumps will be removed and the existing injection line will be cut, capped, and abandoned in place. The existing Surface Water hypochlorite metering pumps are too large to effectively meet current chlorination demands. These pumps will be replaced by similar, but smaller pumps which can provide the required flow rate to control the organic biofouling in the system.

Summary of Evaluation:

The equipment added by this modification is all non-nuclear safety and does not affect any structures, system, component or parameter which is important to safety.

Evaluation Number
SE-92-088

Activity Title:

Evaluation of Repositioning Locked Closed Valves

Description of Change(s):

This activity removes the restriction on manipulating various LC-2 valves in the Instrument Air System. It also includes removing locking devices from the valves and repositioning the valves as necessary to support system operation.

Summary of Evaluation:

The LC-2 designation was provided to identify valves that were locked closed during Unit 2 construction/Unit 1 operation and to serve as the Unit 1/Unit 2 cross-tie isolation point. This isolation provided protection during Unit 2 construction and was in addition to any locking requirements necessary to meet GDC-5 "Sharing of Structures, Systems and Components". Unit 2 construction has progressed to the point where these valves can be restored to a normal "as-designed" two-unit system line-up. The additional administrative protection provided by the LC-2 designation is no longer required. This activity allows the Unit 1 and Unit 2 personnel to reposition the valves as necessary per the applicable procedures to place the systems in operation.

This activity places the valves in the normal as-designed and as analyzed configuration and does not introduce any credible potential failure modes.

Evaluation Number
SE-92-089

Activity Title:

Installation of Piping Connections to Permit Chemical Treatment of the Condensate Storage Tank Inventory (DM 91-033, LDCR SA-92-693)

Description of Change(s):

This activity installs piping connections to the Condensate Storage Tank (CST) to allow the hook-up of a treatment skid to maintain the appropriate water chemistry of the CST inventory.

Summary of Evaluation:

The CST inventory has a safety function of supplying a required amount of water to the Auxiliary Feedwater System to mitigate the consequences of various Condition I, II, III, and IV events as described in FSAR Chapter 15 (e.g., Loss of Main Feedwater, Feedwater line break, Steam line break, LOCA, Steam Generator tube rupture, and loss of AC power). An evaluation was performed to determine the impact of this change on the probability of the failure to meet the minimum required water inventory to accomplish the safety function of the CST.

Based on the location/elevation of the tie-in connections (elevation above minimum required level), the design of the system components, and the procedural controls associated with the use of the treatment skid, it was determined that the probability and consequences of previously analyzed accidents/malfunctions would not increase and that no new accidents/malfunctions are created.

Evaluation Number
SE-92-090

Activity Title:

Boric Acid Transfer Pump Miniflow Line Modification (DM 90-333,
LDCR SA-92-680)

Description of Change(s):

The four (4) existing diaphragm valves located between the Boric Acid Transfer pumps are replaced with globe valves. The two (2) existing globe valves located between the Boric Acid tank and Boric Acid pumps are replaced with diaphragm valves.

The previous system configuration could allow possible adverse pump interaction during various recirculation flow configuration. This modification will minimize Boric Acid Transfer pump-to-pump interactions when the system is aligned in a common mini-flow recirculation configuration. The replacement of the valves has minimal impact of the system performance, while continuing to provided the current degree of system flexibility.

Summary of Evaluation:

The Boric Acid Transfer System is available as the preferred boration pathway for normal operational transients and as the diverse shutdown source (in the event of a failure to insert control rods). This modification will not impact either of these functions. The boric acid transfer flow rate to the Reactor Coolant System will remain unchanged.

Evaluation Number
SE-92-091

Activity Title:

Temporary Opening of Locked Closed Bulk Nitrogen Isolation Valve to
Place a Nitrogen Blanket on the Unit 2 Steam Generators

Description of Change(s):

This activity removes the restriction on manipulating LC-2 valve XNG-0030 in the Bulk Nitrogen System. It also includes removing the locking device from the valve and repositioning the valve as necessary to support system operation.

Summary of Evaluation:

The LC-2 designation was provided to identify valves that were locked closed during Unit 2 construction/Unit 1 operation and to serve as the Unit 1/Unit 2 cross-tie isolation point. This isolation provided protection during Unit 2 construction and was in addition to any locking requirements necessary to meet GDC-5 "Sharing of Structures, Systems and Components". Unit 2 construction has progressed to the point where these valves can be restored to a normal "as-designed" two-unit system line-up. The additional administrative protection provided by the LC-2 designation is no longer required. This activity allows the Unit 1 and Unit 2 personnel to reposition the valve as necessary per the applicable procedures to place the systems in operation.

This activity places the valve in the normal as-designed and as analyzed configuration and does not introduce any credible potential failure modes.

Evaluation Number
SE-92-092

Activity Title:

Modification of Fire Prot. Features-Room X-115B to Provide Equivalent Separation of Redundant Unit 2 Chiller Equip. (LDCRs SA-92-688 & 747)

Description of Change(s):

This activity involves installing Thermo-Lag on only the essential raceways associated with redundant components in the room. To achieve adequate physical separation, the existing fire suppression system will be modified to provide "water curtain" spray coverage to augment the partial barriers (upgrade of the barrier more closely complies with Appendix R requirements), fire stops will be installed in all cable trays containing exposed cabling which are routed over the partial barriers and curbing will be provided at the partial width (west) wall to contain liquid spills. Additionally, two new fire detectors will be installed to enhance existing detection capability above the partial barrier separating the Chiller units.

Summary of Evaluation:

The implementation of this activity does not involve an unreviewed safety question.

There are no credible potential failure modes, accidents or malfunctions introduced to the Chilled Water System or the partial height barriers as a result of implementation of this activity. The room is currently fully sprinklered and the additional heads will not increase the likelihood of Unit 2 Chiller equipment damage. The acceptability of fire protection water impingement on Unit 2 Safety Chilled Water equipment has been evaluated in the Inadvertent Actuation Analysis, calculation 2-FP-0088. The addition of detectors, fire stops and curbs will have no affect on the partial height barriers or the Unit 2 Safety Chilled Water system or components.

There are no credible potential failure modes, accidents or malfunctions associated with the temporary removal of the fire suppression and detection during the implementation of this activity. As outlined in FPR Section IV, compensatory measures (fire watches) are required to be established prior to implementation of this activity. Since the combination of fire watches and continued availability of manual fire suppression capability (hose stations and portable extinguishers) afford an equivalent level of protection to Unit 1 structures, systems and components in the areas affected by this activity, no credible potential failure modes will be introduced. Execution of the work will be coordinated so as to minimize the time required for impairment of the fire suppression and detection systems in the common plant areas and the fire protection systems will be restored with no degradation of functional capability.

Since implementation of this activity does not permanently affect any plant safety related structures, systems or components (SSCs), there will be no reduction in any Technical Specification margin of safety associated with any safety related SSCs.

Evaluation Number
SE-92-093

Activity Title:

Removal of the Locked Closed (LC-2) Requirement on Valve (XDD-0098)
in the Reactor Makeup Water System (LDCR SA-92-844)

Description of Change(s):

The LC-2 (locked closed) designation is removed from valve XDD-0098 in order to allow the Water Treatment System to supply water to Unit 2. Removal of the LC-2 designation from valve XDD-0098 affects the Demineralized Water system and the Reactor Makeup Water System (RMWS). Unit 2 needs the deaerated water for Hot Functional Testing.

Summary of Evaluation:

The RMWS and the Demineralized Water system are not in the Technical Specifications, however, the RMWS is a support system that is Safety Class 3 and supports systems that are required to be functional. There is no possible malfunction or Unreviewed Safety Question that could affect the RMWS as a result of valve XDD-0098 being opened.

Evaluation Number
SE-92-094

Activity Title:

Manipulation of Locked Closed Valves in the Circulating Water System
to Support Unit 2 Hot Functional Testing (HFT) (LDCR SA-92-813)

Description of Change(s):

This activity removes the restriction on manipulating LC-2 valves in the Circulating Water System. It also includes removing locking devices from the valves and repositioning the valves as necessary to support system operation and hot functional testing.

Summary of Evaluation:

The LC-2 designation was provided to identify valves that were locked closed during Unit 2 construction/Unit 1 operation and to serve as the Unit1/Unit 2 cross-tie isolation point. This isolation provided protection during Unit 2 construction and was in addition to any locking requirements necessary to meet GDC-5 "Sharing of Structures, Systems and Components". Unit 2 construction has progressed to the point where these valves can be restored to a normal "as-designed" two-unit system line-up. The additional administrative protection provided by the LC-2 designation is no longer required. This activity allows the Unit 1 and Unit 2 personnel to reposition the valves as necessary per the applicable procedures to place the systems in operation.

This activity places the valves in the normal as-designed and as analyzed configuration and does not introduce any credible potential failure modes.

Evaluation Number
SE-92-095

Activity Title:

Manipulation of Locked Closed (LC-2) Instrument Air System Valves to Support Unit 2 Hot Functional Testing (HFT) (LDCR SA-92-844)

Description of Change(s):

This change removes the restriction on manipulating the LC-2 valves and repositions the valves in the Instrument Air System to support Hot Functional Testing (HFT). The LC-2 designation was used to identify valves that were to be locked closed during Unit 2 construction/Unit 1 operation and served as the Unit 1/Unit 2 cross-tie isolation point. This isolation provided protection of major equipment during Unit 1 construction and was in addition to any locking requirements necessary to meet GDC-5, "Sharing of Structures, Systems, and Components." Unit 2 construction has progressed to the point where the additional administrative protection provided by the LC-2 designation is no longer required, and these valves can be restored to a normal "as-designed" two-unit system lineup. This activity will allow Unit 1 and Unit 2 Operations personnel to reposition these valves, as necessary, per the applicable procedures in order to place the pertinent systems in operation.

Summary of Evaluation:

This change does not impact the accidents analyzed for the plant and, therefore, no unreviewed safety question exists. However, as the Instrument Air System supplies the air to components important to safety, it is considered a malfunction of equipment important to safety.

Evaluation Number
SE-92-096

Activity Title:

Manipulation of Locked Closed (LC-2) Valves in the Chemical Feed System to Support Unit 2 Hot Functional Testing (HFT) (LDCR SA-92-844)

Description of Change(s):

This change removes the restriction on manipulating LC-2 valves in the Chemical Feed System during Unit 2 Hot Functional Testing by removing the locking devices from the LC-2 valves and repositioning the valves. The following valves are affected: 1CF-0118, 2CF-0118, XCF-0024, XCF-0027 and 2CF-0124. The LC-2 designation was used to identify valves that were locked closed during Unit 2 construction/Unit 1 operation in order to serve as the Unit 1/Unit 2 cross-tie isolation point. This isolation provided additional, administrative protection for major equipment during Unit 2 construction. Removal of the LC-2 restriction allows Unit 1 and Unit 2 Operations personnel to reposition these valves as necessary per the applicable procedures to support system testing and place the systems in "as-designed" condition and the system ready for operation. This change affects the Chemical Feed System for both Unit 1 and Unit 2.

Summary of Evaluation:

The Chemical Feed System is non-nuclear safety related and is not required to achieve safe shutdown or to mitigate the consequences of a design basis accident. The Chemical Feed System is used to control corrosion in the Secondary System and the Steam Generators by controlling pH and dissolved oxygen in the condensate and steam generator water during normal operation, hot standby and wet layup. Therefore, the removal of the LC-2 restriction does not increase the probability of any accident evaluated in the licensing basis, does not create any new type of accident, nor does it have any impact on the radiological consequences of the accidents evaluated for the licensing basis.

Evaluation Number
SE-92-097

Activity Title:

Manipulation of Locked Closed (LC-2) Valves in the Demineralized and Reactor Makeup Water System (RMWS) (LDCR SA-92-844)

Description of Change(s):

This change removes the restriction on manipulating LC-2 valves in the Demineralized and Reactor Makeup Water System (RMWS), removes the locking devices from the LC-2 valves, and re-positions the valves as necessary to support Unit 2 Hot Functional Testing. The following valves are affected: XDD-0078, 0079, 0080, 0081, 0040, 0047, 0050, 0098, 0102, 0103, 0116, 0108, 0110, 0123, 0385, 0386, 0388, 0389 and 0405. Removal of the LC-2 designation will restore the systems to the "as-designed" condition. The LC-2 designation was used to identify valves that were locked closed during Unit 2 construction/Unit 1 operation in order to serve as the Unit 1/Unit 2 cross-tie isolation point. This isolation provided additional administrative protection for major equipment during Unit 2 construction. Removal of the LC-2 restriction allows Unit 1 and Unit 2 Operations personnel to reposition the valves in accordance with the applicable procedures to place the systems in operation.

This change affects the Demineralized And Reactor Makeup Water Systems for both Unit 1 and Unit 2. The RMWS adds unborated, primary grade water from the RMWS into the Reactor Coolant through the Reactor makeup portion of the Chemical Volume and Control System. The RMWS also performs a nuclear safety related function of providing makeup water for the Chemical and Volume Control System, the Safety Chilled Water System, the Component Cooling Water System, and the Spent Fuel Cooling Water System.

Summary of Evaluation:

The analysis for the boron dilution event indicates that the maximum acceptable flow rate is 167 gpm (WPT-9462). Calculation 16345-ME(B)-016 analyzed the Unit 1 piping system with two (2) RMWS pumps running and determined the flow rate to be less than 167 gpm. This change will not introduce any credible failure modes for the RMWS, however, the condition of three RMWS pumps running has not been analyzed for the boron dilution event to determine if the makeup flow would still be limited to 167 gpm. A scenario of concern for example would involve RMWS pumps CP1-01 and the CPX-01 supplying Unit 1 and RMWS pump CP2-01 supplying Unit 2. A single operator error in opening XDD-0050 would, in that case, result in the three pumps running in parallel and supplying both Unit 1 and Unit 2. Therefore, implementation of this activity is acceptable only if there is a limitation in place allowing no more than two RMWS pumps to supply a single unit (e.g. procedurally allow XDD-0051 to be open when XDD-0050 is locked closed). The removal of the LC-2 designator does not increase the probability of any accident evaluated in the Licensing Basis Documents, increase the possibility of a new type of accident, or have any impact on the radiological consequences of the accidents evaluated for the licensing basis.

Evaluation Number
SE-92-098

Activity Title:

Manipulation of Locked Closed Valves in the Plant Gas Supply System to Support Unit 2 Hot Functional Testing (LDCR SA-92-844)

Description of Change(s):

This activity removes the restriction on manipulating LC-2 valves in the Plant Gas Supply System. It also includes removing locking devices from the valves and repositioning the valves as necessary to support system operation.

Summary of Evaluation:

The LC-2 designation was provided to identify valves that were locked closed during Unit 2 construction/Unit 1 operation and to serve as the Unit1/Unit 2 cross-tie isolation point. This isolation provided protection during Unit 2 construction and was in addition to any locking requirements necessary to meet GDC-5 "Sharing of Structures, Systems and Components". Unit 2 construction has progressed to the point where these valves can be restored to a normal "as-designed" two-unit system line-up. The additional administrative protection provided by the LC-2 designation is no longer required. This activity allows the Unit 1 and Unit 2 personnel to reposition the valves as necessary per the applicable procedures to place the systems in operation.

This activity places the valves in the normal as-designed and as analyzed configuration and does not introduce any credible potential failure modes.

Evaluation Number
SE-92-099

Activity Title:

Manipulation of Locked Closed Valves in the Condensate Polishing System to Support Unit 2 Hot Functional Testing (LDCR SA-92-844)

Description of Change(s):

This activity removes the restriction on manipulating LC-2 valves in the Condensate Polishing System. It also includes removing locking devices from the valves and repositioning the valves as necessary to support system operation.

Summary of Evaluation:

The LC-2 designation was provided to identify valves that were locked closed during Unit 2 construction/Unit 1 operation and to serve as the Unit1/Unit 2 cross-tie isolation point. This isolation provided protection during Unit 2 construction and was in addition to any locking requirements necessary to meet GDC-5 "Sharing of Structures, Systems and Components". Unit 2 construction has progressed to the point where these valves can be restored to a normal "as-designed" two-unit system line-up. The additional administrative protection provided by the LC-2 designation is no longer required. This activity allows the Unit 1 and Unit 2 personnel to reposition the valves as necessary per the applicable procedures to place the systems in operation.

This activity places the valves in the normal as-designed and as analyzed configuration and does not introduce any credible potential failure modes.

Evaluation Number
SE-92-100

Activity Title:

Manipulation of Locked Closed Valves (LC-2) in the Chemical and Volume Control System (LDCR SA-92-844)

Description of Change(s):

This change removes the restriction on manipulating LC-2 valves in the Chemical and Volume Control System (CVCS), removes the locking devices from the LC-2 valves, and repositions the valves as necessary to support Unit 2 Hot Functional Testing. The following valves are affected: 2-8506, 2-8507, 2-8521, 2-8463, 2-8475; 2CS-7016A through 7-16E; 2CS-7013A through 7013E; 2CS-7014A through 7014E; XCS-0043, XCS-0046, XCS-8477B; and 2CS-8519, 2CS-8517, 2CS-8520, 2CS-8532, 2CS-8526A, 2CS-8526B, 2CS-8525A, 2CS-8525B, 2CS-8543A, 2CS-8543B. Removal of the LC-2 designation will restore the systems to the "as-designed" condition. The LC-2 designation was used to identify valves that were locked closed during the Unit 2 construction/Unit 1 operation in order to serve as the Unit 1/Unit 2 cross-tie isolation point. This isolation provided additional, administrative protection for major equipment during Unit 2 construction. Removal of the LC-2 restriction allows Unit 1 and Unit 2 Operations personnel to reposition the valves in accordance with the applicable procedures to place the systems in operation.

This change affects two areas of the Chemical and Volume Control System: boration and the resin beds. Regarding boration, the equipment affected is the Boric Acid Transfer (BAT) pumps and the gravity drain flow path. Regarding the resin beds, the equipment affected is the Mixed Bed, Cation Bed, and the Thermal Regeneration Demineralizers for Unit 2.

Summary of Evaluation:

Removal of the LC-2 restriction will not introduce any credible potential failure modes for the CVCS. The only malfunctions of equipment important to safety described in the Licensing Basis Documents that affect the boration safety function are those that impact the ability to attain and maintain a safe plant shutdown. Similarly, the only malfunctions of equipment important to safety described in the Licensing Basis Documents that affect the resin bed operations are those that impact this ability to maintain the integrity of the CVCS. The removal of the LC-2 restriction on valves in the CVCS does not increase the probability of any accident evaluated in the Licensing Basis Documents, does not create any new type of accident, nor does it have any impact on the radiological consequences of the accidents evaluated for the licensing basis.

Evaluation Number
SE-92-101

Activity Title:

Manipulation of Locked Closed Valves (LC-2) in the Ventilation Chilled Water System to Support Unit 2 Hot Functional Testing (LDCR SA-92-838)

Description of Change(s):

This change removes the restriction on manipulating LC-2 valves in the non-safety Ventilation Chilled Water System, removes the locking devices from the LC-2 valves, and repositions the valves as necessary to support Unit 2 Hot Functional Testing. The following valves are impacted: 2CH-0271, 2CH-0291, 2CH-0630, 2CH-0631; XCH-120, XCH-131, XCH-123, XCH-0115, XCH-0153, XCH-0380; and X-HV-6053A, X-HV-6054A. Removal of the LC-2 designation will restore the systems to the "as-designed" condition. The LC-2 designation was used to identify valves that were locked closed during the Unit 2 construction/Unit 1 operation in order to serve as the Unit 1/Unit 2 cross-tie isolation point. This isolation provided additional, administrative protection for major equipment during Unit 2 construction. Removal of the LC-2 restriction allows Unit 1 and Unit 2 Operations personnel to reposition the valves in accordance with the applicable procedures to place the systems in operation.

Summary of Evaluation:

Removal of the LC-2 restriction from the valves will not introduce any credible potential failure modes for the Ventilation Chilled Water System. The only equipment important to safety associated with the Ventilation Chilled Water System is the Containment penetrations or isolation valves. However, none of the valves affected by this change are associated with the Containment penetrations or isolation valves.

The removal of the LC-2 designator does not increase the probability of any accident evaluated in the Licensing Basis Documents, does not create any new type of accident, nor does it have any impact on the radiological consequences of the accidents evaluated for the licensing basis.

Evaluation Number
SE-92-102

Activity Title:

Comanche Peak Units 1 and 2 Inservice Testing Program Plan for Pumps and Valves

Description of Change(s):

Revises CPSES Unit 1 Inservice Testing Plan for Pumps and Valves, First Inspection Interval (IST Plan). The revision is actually a new Unit 1 and 2 IST Plan document which accomplishes the following:

- o Specifies the scope and test requirements for Unit 2 pumps and valves in accordance with the 1989 Edition of ASME Section XI.
- o Specifies the scope and test requirements for Unit 1 pumps and valves and updates those scope and test requirements from the 1986 Edition of ASME Section XI to the 1989 Edition.
- o Makes any other changes to the Unit 1 pump and valve scope and test requirements to bring the IST Plan into agreement with the plant design bases and into compliance with ASME Section XI requirements (not related to the changes in going from 1986 to the 1989 Edition).

The new Unit 1 & 2 IST Plan has been compared to the existing Unit 1 IST Plan and changes were identified and classified into one of the following categories:

- o Editorial and format changes to the IST Plan.
- o Changes associated with bringing the IST Plan into compliance with the Code (either as a result of adopting the 1989 Code or as a result of non-compliance which existed irrespective of the Code change).
- o Changes to the IST Plan which specifically require prior NRC approval pursuant to 10CFR50.55a or changes which constitute a deviation from the rules of 10CFR50.55a (and thus require NRC approval).

Summary of Evaluation:

This activity is a revision to an administrative testing plan document which results in compliance with Section XI of the ASME Code and no structures, systems, components, or system parameters are affected by its implementation, nor are any new failures introduced. Since no structures, systems, components, or system parameters are affected, it follows that failure modes, accidents, malfunctions, radiological consequences, initiating events, probabilities of occurrence or failure, new accident possibilities, new equipment malfunctions, Technical Specification acceptance limits and safety margins are likewise not affected.

Evaluation Number
SE-92-104

Activity Title:

LDCR SA-92-699; FSAR Section I.C.5 through Amendment 78 - Delete
Plant Analysis Routine Assessment of Vendor Correspondence

Description of Change(s):

Plant Analysis personnel have been reviewing and assessing industry operating experience from several sources. For vendor correspondence, a portion of this review is duplicated by the organization which processes the vendor correspondence. This change eliminates the duplicated portion of the review for Plant Analysis personnel and indicates that the organization responsible for this portion of the review is the organization which processes vendor correspondence.

Summary of Evaluation:

The same reviews and assessments are being performed as before, except that a different organization is performing the review and assessment. Since the quality of the review and assessment process is unchanged, an unreviewed safety question is not involved.

Evaluation Number
SE-92-105

Activity Title:

Retermination of Unit 2 Cables at Common Class 1E 118V AC Distribution Panels XEC1-1 and XEC2-1 (DM 91-022 R.O, LDCR SA-92-704)

Description of Change(s):

Prior to the startup of Unit 1, the Unit 2 interface cables were determined from the common Class 1E 118V AC distribution panels (i.e. cables E0021948M, E0021958M and E0205543 from panel XEC1-1 and cables EG021973M, EG021974M, and EG205545 from XEC2-1). The above activity (DM 91-022 R.O) involves reconnecting the cables at XEC1-1 to repower Unit 2 balance-of-plant (BOP) auxiliary relay racks 1, 4 and 10 and at XEC2-1 to repower Unit 2 BOP auxiliary relay racks 2, 5 and 11.

Summary of Evaluation:

The reconnection of the Unit 2 loads to the common Class 1E 118V AC distribution panels, does not constitute an unreviewed safety question for Unit 1 due to the following:

- 1) The added Unit 2 loads are isolated from the 118V distribution panel by properly coordinated breakers and fuses to ensure that a fault in the Unit 2 BOP auxiliary relay racks will not propagate to Unit 1.
- 2) The increase in load due to the added Unit 2 equipment was already accounted for in the Unit 1 loading and Emergency Diesel Generator loading calculations.
- 3) The Unit 2 cables routed through the common area were included in the Unit 1 and common area combustible loading calculations.
- 4) The reconnection of these loads does not increase the available short circuit current for Unit 1.
- 5) The Unit 2 equipment and cables meet the electrical separation requirements and the associated raceways are seismically supported. These cables were reviewed in the system interaction program to ensure that no adverse interactions exist.

Evaluation Number
SE-92-107

Activity Title:

Revise FSAR Figure 8.3-15A, Sh.2 to Reflect Reterminations of
Unit 2 Cables in the Appropriate MCCs and DPs (LDCR SA-92-704)

Description of Change(s):

Prior to the startup of Unit 1, numerous Unit 2 cables were
determined from indicating light circuits and balance of plant (BOP)
auxiliary relay circuits associated with the common Class 1E 480V
motor control centers (MCCs) and common 118V AC distribution panels
(DPs).

These cables have been reconnected under Design Modifications (DM)
91-014, 015 and 022. The respective safety evaluations associated
with these completed modifications are SE-91-117, 118 and 92-105.

The above activity (LDCR SA-92-704) involves revising the FSAR
Figure 8.3-15A sheet 2 to reflect retermination of these cables in
order to make the FSAR agree with the modified configuration.

Summary of Evaluation:

Refer to the summaries of the individual Safety Evaluations identified
above.

Evaluation Number
SE-92-111

Activity Title:

Revise Position of Reactor Coolant Drain Tank Vent Valve to Gaseous Waste Processing system (IGH-7809) from Normally Open to Closed

Description of Change(s):

For venting of the Reactor Coolant Drain Tank (RCDT) to occur, it is required by Technical Specifications that explosive gas monitoring instrumentation in the Gaseous Waste Processing system (GH) be Operable. Pressure regulating valve 1-7152 does not provide adequate isolation of GH from the RCDT when GH gas monitoring is out of service and has created the condition where maintaining Technical Specification requirements for hydrogen in the GH system is difficult. Valve IGH-7809 will provide adequate isolation for this condition and will thus be designated normally closed. It will be procedurally opened when RCDT venting is required.

Summary of Evaluation:

Operating practice is to maintain the RCDT inventory at a constant level to minimize generation of gas within the RCDT. It is monitored on a daily basis for tank and vent pressure and is protected from overpressurization by a relief valve. Based on these operating practices, no credible failure modes are introduced by implementation of this activity. This change will assure that the Technical Specification acceptance limits for the hydrogen concentrations in the Waste Gas Holdup system will be met.

Evaluation Number
SE-92-113

Activity Title:

Acceptability of Non-1E Indicating Lights Connected to Class 1E Equipment (LDCR SA-92-713)

Description of Change(s):

Final Safety Analysis Report (FSAR) Section 8.3 was revised to identify the existence of non-Class 1E indicating lights, located on the Class 1E Emergency Diesel Generator (EDG) control panel, connected to a 1E power supply without isolation devices. An isolation scheme or load shed feature is normally required for such a configuration of non-1E loads connected to a Class 1E power supply.

Summary of Evaluation:

The configuration involving non-Class 1E indicating lights, furnished in the EDG engine control panel without any isolation devices, does not represent an unreviewed safety question due to the following:

- 1) The EDG control panel is located in a mild environment.
- 2) The indicating lights are seismically installed with cabling made to Class 1E requirements (i.e., cables are installed as associated cables).

Based on the above, the only credible failure mode of these non-1E circuits is opening of the lamp filament which results in the loss of indication and is not a concern as it would not degrade the Class 1E power supply or cause damage to other Class 1E devices in the control panel.

Evaluation Number
SE-92-116
Revision 2

Activity Title:

Modify Power Supplies & Controls for Non-Safety Chilled Water Recirc
and Oil Pumps 1 through 4 for Two Unit Operation (LDCR SA-92-726)

Description of Change(s):

- (1) Change the "normal" power supply of MCC XEB1-1 from Unit 1 to Unit 2 power source.
- (2) Change the "normal" power supply of MCC XEB2-1 from Unit 1 to Unit 2 power source.
- (3) Relocate Chiller oil pump X-03 from MCC XEB3-2 to MCC XEB1-1.
- (4) Relocate Chiller oil pump X-04 from MCC XEB4-2 to MCC XEB2-1.
- (5) Remove the SIS signal (remove shunt trip) and replace non-class 1E circuit breakers with class 1E fuses in the local starter for Chiller oil pumps X-03 and X-04.
- (6) Revise the control circuits for the "Load Shed Complete" indication on 1/2-MLB-09 and 1/2-MLB-10 for common MCCs XEB1-1, XEB2-1, XEB1-2 and XEB2-2.

Summary of Evaluation:

Non-safety Chillers 1 and 2 are required for Unit 1 Containment cooling and are powered from 6.9KV SWGR 1EA1 and 1EA2. Similarly, non-safety Chillers 3 and 4 are required for Unit 2 Containment cooling and are powered from 6.9KV SWGR 2EA1 and 2EA2. Each of these Chillers require one water recirc pump and one oil pump.

When there is Unit 1 Safety Injection (SI) or Unit 1 loss of power, all the four recirc pumps and oil pumps are tripped, causing both Unit 1 and Unit 2, 2.4KV Chillers to trip and a loss of Unit 2 Containment cooling. Similarly, when there is Unit 2 SI or Unit 2 power loss (with the common MCCs being powered from the alternate source), all the four recirc pumps and oil pumps are tripped, causing both Unit 1 and Unit 2, 2.4KV Chillers to trip and a loss of Unit 1 Containment cooling. In order to keep two Unit 2, 2.4KV Chillers available during loss of Unit 1 power or Unit 1 SI, and keep Unit 1, 2.4KV Chillers available during Unit 2 SI or Unit 2 power loss, the following design modification has been presented in this DM.

(A) By changing the "normal" power source to MCC XEB1-1 and XEB2-1 from Unit 1 to Unit 2, recirc pumps 1 and 2 will be available for Unit 2, 2.4KV Chillers 3 and 4.

(B) By relocating Chiller oil pump 3 to MCC XEB1-1 and oil pump 4 to MCC XEB2-1, oil pumps 3 and 4 will be available for Unit 2, 2.4KV Chillers 3 and 4. By removing SI signal circuitry (removing shunt trip) for all four Chiller oil pumps, the possibility of tripping

Evaluation Number
SE-92-116
Revision 2

these oil pumps on SI signal from either Unit has been eliminated. This will make all four oil pumps available all the time when there is an SI signal from either unit. This will, in turn, remove the possibility of tripping 2.4KV Chillers almost instantly on Low Oil Pressure signal after oil pumps are tripped upon SI signal from either Unit.

The Non-Class 1E oil pumps are properly isolated from Class 1E power supply by replacing the Non-Class 1E circuit breakers with Class 1E fuses (as second isolation device) in the local starter of the oil pumps.

The above changes will add insignificant load to Diesel Generator in case of LOCA and BLACKOUT conditions. The worst case loading (in BLACKOUT condition) is increased by 0.3KW to a total load of 6236.8KW which is less than the continuous rating of 7000KW and Technical Specification limit of 6300KW for the Diesel Generator.

LDCR SA-92-726 is revising the FSAR Tables 8.3-1A, 8.3-1B, 8.3-2, 8.3-11 and Figure 8.3-11 Sheet 2 and Sheet 3 to incorporate these changes.

Evaluation Number
SE-92-119

Activity Title:

Procedure for Identifying Sources of Dissolved Oxygen in the
Condensate System

Description of Change(s):

This activity provides a plant procedure to be used to identify
sources of dissolved oxygen in the condensate system.

Summary of Evaluation:

The equipment affected by this procedure is not safety related and is
located in non-safety areas. The possible accidents related to the
condensate system, Loss of Condensate Flow, and Loss of Condenser
Vacuum, are unaffected by the change and continue to be fully bounded
by existing FSAR accident analyses.

Evaluation Number
SE-92-121

Activity Title:

Procedural Revision to Reassign Responsibility for Calibration of
Portable Radiation Protection Instrumentation

Description of Change(s):

Radiation Protection Instruction RPI-833, "Maintenance, Rework and Modification of Radiation Protection Portable Instrumentation," was retired due to the transfer of responsibility for radiation protection instrumentation calibration and repair from Radiation Protection to Instrumentation and Control. Safety Evaluation SE-92-044, prepared when Station Administrative Procedure STA-658, "Radiation Protection Equipment Calibration Program," was revised, addressed this change in responsibility. Changes related to the retiring of RPI-833 are encompassed by SE-92-044.

Summary of Evaluation:

Refer to the Summary of Evaluation prepared for Safety Evaluation SE-92-044.

Evaluation Number
SE-92-122

Activity Title:

Fuel Building Filter Demineralizer/Resin Dewatering Skids and Barrel Pit Modifications (DM 90-507 R.1, LDCR SA-92-743)

Description of Change(s):

DM 90-507 Rev. 1 will permanently install two Rad Vaults in the Fuel Building (FB) Barrel Pit, as well as the new leased Filter Demineralizer (FD) Skid and Resin Dewatering (RD) Skid; service air, demineralized water and electrical power supplies are provided in the general vicinity of each of the skids. Additional HVAC exhaust ducting is provided above the RD Skid, but total room exhaust air flow remains the same. A new one-ton capacity jib crane is installed to facilitate handling the High Integrity Container lids. Two 3" threaded pipe connections are provided on the FB Sump #1 cover plates as a means for flushing/pumping out the sump. Finally, the ladder in Room X-252 is provided with an additional 3 rungs to bring it down to the floor elevation. At the present time, the FD skid is located in the FB Hot Shop room, and takes up a significant amount of space in that room. Removing the skid and relocating the new leased FD skid to the Barrel Pit would free up the Hot Shop for its intended use. Installation of the two Rad Vaults in the Barrel Pit, along with the Resin Dewatering skid, will allow continuous processing of resins regardless of other demands of space and time in the Train Bay, where the processing now takes place. This is a major concern, especially during an outage, when the Train Bay must be cleared of personnel and all other activities stopped to allow resin transfer and processing. The increased ladder length will provide additional safety by extending the ladder to the floor.

Summary of Evaluation:

Implementation of Design Modification 90-507 Rev. 1, does not involve an Unreviewed Safety Question. Fuel Building Room X-247 (Barrel Pit) is a Safe Zone in accordance with STA-661, and the installation of the unanchored Rad Vaults and Skids is therefore acceptable. The effect of the weight of the vaults and skids on the floor was analyzed and found acceptable. All new piping is non-safety related and mounted Seismic Category II, as is the new HVAC duct and duct supports. The jib crane is also seismically installed, as well as all conduits, conduit supports and junction boxes. The new electrical cable sizes and protection schemes are in accordance with Design Basis Documents DBD-EE-051 and -052. The processing of spent resins is enhanced by this modification, especially during Unit outages, since the Railroad Bay will no longer be required for this activity. The modification can be implemented with the Unit on-line. No new credible failure modes for any of the interfacing plant systems are introduced, and there is no potential for an impact on the safety function of any plant structure, system or component.

Evaluation Number
SE-92-123
Revision 1

Activity Title:

Surface Water Treatment System Upgrade (DM 90-494 R.1)

Description of Change(s):

DM 90-494 will remove the existing "Reacta-Pak" units, associated sump pumps, conduit, water and air lines and relocate the water production lab's HVAC unit, in order to prepare the building currently housing this system for installation of an upgraded water treatment system of greater production capacity. System air and water lines which will be incorporated for use in the new system will be cut and capped at or near the building boundary, to be rerouted following preliminary equipment removal. Two of the existing sump pumps, their related components, and several other valves and lines will be spared, but removed from the building to be later relocated and reinstalled. The existing system transformer will also be relocated.

The implementation of this design modification to the water treatment system will improve the reliability of the system and provide the improved quality and quantity of water to meet the demands of two operating reactor units in the long term.

Since the Reacta-Pak system is out-of-service, its removal has no impact upon on-line systems. However, modifications which will be performed on the Demineralized Water Storage Tank, R.O. Product Water Storage Tank and Filtered Water Storage Tank will require the isolation of these tanks.

DM 90-494 initiates the installation of the new water treatment system by removal of the existing Reacta-Pak system and its components. The building will then be prepared for the installation of the new water treatment system by the installation of the supporting service lines above and below ground. The new system equipment will be installed under Revision 2 of DM 90-494.

Summary of Evaluation:

Implementation of Design Modification 90-494 Revision 1 does not involve an Unreviewed Safety Question. The system in question is currently an out-of-service, non-safety related system whose removal does not impact the safety of the plant. The installation of non-safety related piping to support the operation of future equipment does not impact the safety of the plant.

Evaluation Number
SE-92-124

Activity Title:

Removal of Control Grade Automatic Feedwater Isolation Function in the
Solid State Protection System Water Hammer Prevention Logic

Description of Change(s):

This activity provides a Temporary Modification (TM) to allow
connection of test equipment to Train A of the Solid State Protection
System (SSPS) in order to troubleshoot spurious feedwater isolation
actuations.

Summary of Evaluation:

The test equipment is connected to test points which are part of the
design of the equipment and thus the testing will not impact the
operation of the plant. The test equipment is connected to monitor
signals in Train A SSPS for functions which are not safety related
(i.e., control grade automatic feedwater isolation function in the
water hammer prevention system).

Evaluation Number
SE-92-125

Activity Title:

Revise FSAR Section 9.1.4.2.3 to Reflect Actual Refueling Machine
Bridge Maximum Speed of 60 ft/min. (LDCR SA-92-638)

Description of Change(s):

The CPSES Units 1 and 2 refueling machines were supplied with a maximum bridge speed of 60 ft/min. However, the maximum speed of the bridge is indicated as 40 ft/min in FSAR section 9.1.4.2.3. The FSAR is to be revised to show the actual refueling machine bridge maximum speed of 60 ft/min.

Summary of Evaluation:

The refueling machine is a rectilinear bridge and trolley system with a vertical mast extending down into the refueling water. The bridge spans the refueling cavity and runs on rails set into the edge of the refueling cavity. The refueling machine performs fuel handling operations in the Containment Building.

The refueling machines for CPSES Unit 1 & 2 were supplied with a bridge drive with a stepless variable speed up to 60 ft/min. However, the FSAR (page 9.1-37) states that the maximum speed is 40 ft/min. The FSAR should be revised to show the correct value of 60 ft/min.

The change of the maximum bridge speed from 40 ft/min to 60 ft/min is a documentation change only. The configuration of the refueling machine is unchanged. The bridge speed of 60 ft/min was in the original design. Therefore, there is no change to the plant but only to the licensing documentation.

The statement of maximum bridge speed in FSAR section 9.1.4, Fuel Handling System, is purely descriptive and is not intended to imply any safety limit for fuel assembly protection. The design basis fuel handling accident (FSAR section 15.7.4) is defined as the dropping of a spent fuel assembly in the Containment Building or spent fuel storage area floor resulting in the rupture of the cladding of all the fuel rods in the assembly, which remains limiting regardless of bridge speed.

The maximum bridge speed is referenced implicitly in the following sections of the FSAR:

i. 9.1.4.1 Fuel Handling System, Design Basis

The inertial loads imparted to the fuel assemblies or core components during handling operations are less than potential damage-causing loads.

Evaluation Number
SE-92-125

ii. 9.1.4.3.1 Safety Evaluation, Safe Handling

Design load for the refueling machine shall be normal dead and live loads plus maximum hoist load.

The maximum bridge speed of 60 ft/min was evaluated and is acceptable. The above statements in the FSAR remain valid.

The increased bridge speed from 40 to 60 ft/min will not increase the probability of any fuel handling accidents. This increased speed will not introduce any significant increase in forces experienced by fuel assemblies during handling operations which could lead to fuel drop accidents. In addition, the severity, if any such accident were to occur, is bounded by accident conditions described in the FSAR.

Evaluation Number
SE-92-127

Activity Title:

Revise FSAR TB.3-1A, -1B, -2, -4, -4A, -4B, -4C and -11; Adds U2 Information Cable/XFMR Losses; Corrects DG Aux. & Aux FW Pump Load; LDCR SA-92-697

Description of Change(s):

Unit 2 equipment designations and loads not bounded by Unit 1 loads are added to the FSAR Diesel Generator Loading Tables. Cable and transformer losses determined via calculation 2-EE-0014 Revision 3 are added to the Diesel Generator Load Tables. Diesel Generator auxiliaries required in the event of failure of motor-driven components are added with the largest load (Auxiliary Jacket Water pump) reflected in Table 8.3-2. Lastly, Auxiliary Feedwater (AFW) pump load is reduced at Residual Heat Removal (RHR) cut-in to 375KW to account for reduced flow with AFW System in continuous recirculation mode.

Summary of Evaluation:

The addition of cable and transformer losses (140KW) to the Injection Phase LOCA with LOOP Loading Table 8.3-1A and Recirculation Phase LOCA with LOOP Loading Table 8.3-1B does not cause the total connected load to exceed the allowable load. Also, the Unit 2 loads are bounded by the corresponding Unit 1 loads shown in the tables.

The net effect of the addition of the cable and transformer losses (140KW) and Auxiliary Jacket Water pump (51.3KW) to the Blackout Table 8.3-2 in conjunction with reduction of the Auxiliary Feedwater pump load to 375KW (-217KW) is below the allowable load. Also, the Unit 2 loads are bounded by the corresponding Unit 1 loads.

Unit 2 125VDC battery loading values added to the FSAR tables are all bounded by the existing Unit 1 maximum battery sizing loads. Therefore, addition of the Unit 2 loads does not affect existing battery loading.

Based on the preceding discussions, the proposed additions and modifications to the Diesel Generator Loading Tables and Battery Loading Tables do not introduce any credible potential failure mode to the affected systems, structures or components.

Evaluation Number
SE-92-128

Activity Title:

Incorporation of Latest Methodology for Refueling and Removal of
Detail Descriptions of Equipment and Procedures (LDCR SA-92-682)

Description of Change(s):

This change affects FSAR Section 9.1 to remove inconsistencies, incorporate latest refueling methodologies, and delete detailed descriptions of equipment and procedures. This change affects fuel handling and spent fuel pool cooling systems in order to more accurately describe their intended function. This change clarifies inconsistencies in the FSAR concerning storage of new fuel with the wrapper either removed or open at the bottom.

Summary of Evaluation:

This change removes some detailed description, but does not add new practices or procedures. This change cannot affect the fuel handling design basis accidents. The design basis accidents are the dropping of a spent fuel cask and the rupture of all rods in a fuel assembly. This change does not delete the requirements for safe handling of fuel or spent fuel casks. This change also does not detrimentally affect the geometry or subcriticality of fuel storage. Likewise, this change does not affect the cooling capabilities of the spent fuel pools. Finally, this revision does not in any way alter the requirements presented in the Technical Specifications.

Evaluation Number
SE-92-129

Activity Title:

Restoring Operation of the Circulating Water Bleed Line to the Service Water Intake Structure (SWIS) (LDCR SA-92-751)

Description of Change(s):

This activity restores the ability to operate the Circulating Water bleed line to the Service Water Intake Structure (SWIS).

Summary of Evaluation:

The sparger in the SWIS has been modified to insure that debris no larger than that passable by the traveling screens is allowed to enter the SWIS. Operation of the line will, therefore, not increase the probability of heat exchanger tube blockage as all heat exchanger passages are sufficiently large to pass any potential debris allowed by the screens. This activity does not affect the ability of the Service Water System to perform its safety function nor the margin of safety of any associated Technical Specifications.

Evaluation Number
SE-92-130

Activity Title:

Use of Thermal Fiberglass Insulation and Stainless Steel Jacketing
Outside Containment (LDCR SA-91-177)

Description of Change(s):

This FSAR change identifies the use of a non-corrosive fiberglass insulation with stainless steel jacketing outside the Containment Building as well as within. This change allows the removal and replacement of calcium-silicate based insulation and aluminum jacketing.

Summary of Evaluation:

No structures, systems or components are adversely affected by this change. The calcium-silicate insulation caused pitting and corrosion in the secondary side piping and components. Replacement with non-corrosive fiberglass insulation in conjunction with stainless steel jacket material will reduce the risk of water damage to system piping and components. The fiberglass insulation weighs less than the calcium-silicate insulation; therefore, there is no impact on system or component supports.

Evaluation Number
SE-92-131
Revision 1

Activity Title:

Restoration of Component Cooling Water System Safeguards Cross-Unit Isolation Valves (DM 91-086 R.1, LDCR SA-92-802)

Description of Change(s):

This activity re-installs Component Cooling Water system (CCWS) Safeguards Unit 1/Unit 2 cross-Unit isolation valves 2CC-0049 and 0171. These valves had been removed per DM 91-076 and blanks installed to preclude cross-Unit leakage that may have been occurring at these locations. The subject valves are being re-installed with a dynamic elastomer in lieu of the previous teflon pressure seal ring. The new design has demonstrated a substantial improvement in mitigating seat leakage for this valve design. In addition, vents are being added in the common piping between the Unit 1 and Unit 2 cross-tie isolation valves so that the common piping may be vented to fill this piping should cross-tying the two Units' CCWS be required. The vent line may also be used as a tell-tale if cross-Unit leakage is suspected; the vent valve may be opened and the surge tank level observed along with the vent line flow to determine if leakage is occurring past both the respective isolation valves.

Summary of Evaluation:

The conclusion of the evaluation is that no Unreviewed Safety Question exists, and an amendment to the Technical Specifications is not required as a result of this activity. The piping configuration has been analyzed/evaluated and no unacceptable stresses exist as a result of this activity.

This activity does not impact any accident/malfunction analysis nor is the likelihood of any existing analyzed accident or malfunction increased since the valves are being returned to the original design basis configuration, and since existing accident/equipment malfunction analyses in the Licensing Basis Documents do not take credit for cross-connecting the Unit 1/Unit 2 CCWS Safeguards. Operational considerations/system line-up requirements for establishing the cross-connections are not part of this evaluation and will be addressed in Engineering's response to TE-1763. With respect to re-installing 2CC-0049 and 0171, this activity only returns the system to its original design configuration.

Evaluation Number
SE-92-132

Activity Title:

Revise FSAR Section 9.1.4.2.3 to Show Actual Refueling Machine Main Hoist Maximum Speed of 24 ft/min. (LDCR SA-92-755)

Description of Change(s):

The CPSES Units 1 and 2 refueling machines were supplied with a maximum main hoist speed of 24 ft/min. However, the maximum speed of the main hoist is indicated as 20 ft/min in the FSAR section 9.1.4.2.3. The FSAR is to be revised to show the actual refueling machine main hoist maximum speed of 24 ft/min.

Summary of Evaluation:

The refueling machine is a rectilinear bridge and trolley system with a vertical mast extending down into the refueling water. The bridge spans the refueling cavity and runs on rails set into the edge of the refueling cavity. The refueling machine performs fuel handling operations in the Containment Building.

The refueling machine main hoist was determined to have a maximum speed approaching 24 ft/min. This is higher than the maximum recommended speed but was found acceptable under normal load conditions. Therefore, the FSAR should be revised to show the correct value of 24 ft/min.

This is only a documentation change, i.e., the configuration of the refueling machine is unchanged. The maximum hoist speed is within the design basis. Therefore, there is no change to the plant but only to the licensing documentation.

The statement of maximum hoist speed in FSAR Section 9.1.4, Fuel Handling System, is purely descriptive and is not intended to imply any safety limit for fuel assembly protection. The design basis fuel handling accident (FSAR Section 15.7.4) is defined as the dropping of a spent fuel assembly in the Containment Building or spent fuel pool fuel storage area floor resulting in the rupture of the cladding of all the fuel rods in the assembly, which remains limiting regardless of hoist speed.

The maximum hoist speed is referenced implicitly in the following section of the FSAR:

i. 9.1.4.1 Fuel Handling System, Design Basis

The inertial loads imparted to the fuel assemblies or core components during handling operations are less than potential damage-causing loads.

Evaluation Number
SE-92-132

ii. 9.1.4.3.1 Safety Evaluation, Safe Handling

Design load for the refueling machine shall be normal dead and live loads plus maximum hoist load.

On the main hoist the motor brake is rated at 350 percent operating load and the mechanical brake at 300 percent.

The maximum hoist speed of 24 ft/min has been evaluated and is acceptable. The above statements in the FSAR remain valid.

The increased main hoist speed from 20 to 24 ft/min will not increase the probability of any fuel handling accidents. This increased speed will not introduce any significant increase in forces experienced by fuel assemblies during handling operations which could lead to fuel drop accidents. In addition, the severity, if any such accident were to occur, is bounded by accident conditions described in the FSAR.

Evaluation Number
SE-92-133

Activity Title:

Open 2CC-0312 and X-HV-4649 To Allow The Unit 2 Filter Skid To Be Operated

Description of Change(s):

Valves 2CC-0312 and X-HV-4649 are opened to provide flow through the X-02 Spent Fuel Pool (SFP) heat exchanger which will allow the filter skid to be placed in service. In addition, valves on the inlet and outlet of the X-02 SFP heat exchanger will be closed on the SFP side to isolate the SFP System from the Unit 2 Component Cooling Water System. These valves have been designated locked closed (LC-2) during Unit 2 construction. The Spent Fuel Storage and the Spent Fuel Pool Cooling and Cleanup System could be affected by this change.

Summary of Evaluation:

Opening these valves will not introduce any additional credible potential failure modes. Since the Component Cooling Water system is not used to cool the Spent Fuel Pool, abnormal spent fuel pool temperatures are not affected by this change. Opening the valves does not increase the probability of any accident evaluated in the Licensing Basis Documents, does not create any new type of accident, nor does it have any impact on the radiological consequences evaluated for the licensing basis.

Evaluation Number
SE-92-134

Activity Title:

Deletion of Motor Protection Relay 26 & Ground Fault Relay 50N for
6.9kV Reactor Coolant Pumps from TRM (LDCR TR-92-015)

Description of Change(s):

Deletes relays 26 & 50N for all Reactor Coolant Pumps' penetration conductors from the Technical Requirements Manual (TRM). Relay 26 (Motor Locked Rotor Protection Relay) is not required to provide the primary or backup penetration protection. Primary penetration protection is provided by overcurrent relays 50M1-51 & 51M2. Penetration backup protection is provided by a separate set of overcurrent relays, 51M3 & relay 51 (6.9 kV switchgear incoming feeder relay). Relay 50N (Ground Fault Protection Relay) is not required; penetration overcurrent protections provide adequate ground fault protection.

Summary of Evaluation:

Deletion of relays 26 & 50N is acceptable since the penetration conductors are adequately protected by the primary (50M1-51 & 51M2) and backup (51M3 & 51) protection relays. The Safety Evaluation indicates that the deletion of the relays from surveillance requirements will have no adverse effect on the penetration protection. Relays 26 & 50N continue to provide adequate locked rotor and ground fault protection. This modification presents no new failure modes for the plant or any plant systems. No credible failure modes are associated with the above activity.

Evaluation Number
SE-92-136

Activity Title:

Deletion of Locked Closed (LC-2) Designator for the Spent Fuel Pool
Cooling and Cleanup System (LDCR SA-92-761)

Description of Change(s):

This change is to delete the LC-2 designation from the Spent Fuel Pool
Cooling and Cleanup System Flow Diagrams. The valve position will now
be controlled under the STA-821 program.

Summary of Evaluation:

The LC-2 designation was required to identify those valves to be
locked closed during Unit 2 construction. Removal of this designation
is an administrative change as the control of the isolation points
(valves and temporary paddle blind as discussed in the Background
Discussion in the Safety Evaluation) will now be per STA-821. Removal
of the LC-2 designation does not change the required valves' position
during normal plant operations, it is not associated with any
Technical Specifications and it does not constitute an unreviewed
safety question.

Evaluation Number
SE-92-137

Activity Title:

Removal of Locked Closed (LC-2) Designator for Several Valves in the
Component Cooling Water System (LDCR SA-92-765)

Description of Change(s):

The LC-2 designation was required to identify those valves to be locked closed during Unit 2 construction. This change is to delete the LC-2 designation from the Component Cooling Water System Flow Diagrams. Removal of this designation is an administrative change and the valve position will now be controlled under the STA-821 program.

Summary of Evaluation:

Removal of the LC-2 designation does not change the required valve position during normal plant operations and implementation of this activity will not affect the accidents or malfunctions of equipment important to safety as described in the Licensing Basis Documents. This activity is not associated with any Technical Specifications and does not constitute an unreviewed safety question.

Evaluation Number
SE-92-138

Activity Title:

LDCR SA-92-752; Major Revision of FSAR Section 12.5, "Radiation Protection"

Description of Change(s):

LDCR SA-92-752 revises FSAR Section 12.5, "Radiation Protection," to reflect current radiation protection (RP) programs, practices and facilities and to eliminate unnecessary details from FSAR descriptions of RP programs, practices and facilities. Major changes include wording changes to eliminate inconsistencies regarding transfer of responsibilities for calibration of RP instrumentation from RP to I&C, change of TLD processing frequency from monthly to quarterly, addition of the Unit 2 access control and decontamination facilities, elimination of the laundry facility and elimination of the support/review function of the Corporate Health Physics Supervisor.

Summary of Evaluation:

The changes to FSAR Section 12.5 are acceptable and do not affect plant safety. The changes affect the descriptions of RP related practices, equipment and facilities used to measure radiation levels and personnel exposures for compliance with 10CFR20. The change to eliminate the laundry facility has no impact on safety related systems or structures. Adequate capability for laundering used protective clothing is provided by use of contracted vendor services.

Evaluation Number
SE-92-139

Activity Title:

Deletion of Locked Closed (LC-2) Designation for Various Systems
(LDCRs SA-92-772, 796, 808, 812, 813, 821, 833, 838, & 844)

Description of Change(s):

This activity removes the LC-2 designation (locked closed for Unit 2 construction) from the valves identified in this Safety Evaluation. All the valves identified in this Evaluation have been placed in one of four categories: 1) Valves controlled by STA-821, 2) Valves not controlled by STA-821, however, an isolation point does exist on STA-821 that takes credit for these valves, 3) Valves addressed in previous Safety Evaluations, and 4) Valves being evaluated in this Safety Evaluation.

Summary of Evaluation:

This evaluation is applicable for revising the flow diagrams, FSAR figures and Design Basis Documents to permanently remove the LC-2 designation from all unit interface valves identified in the Evaluation. For the valves identified in categories 2 and 4, which are being returned to their "as designed" condition, this Evaluation removes the restriction on manipulation of these valves, including, removing locking devices and repositioning them as necessary to support system operation.

Evaluation Number
SE-92-140

Activity Title:

Addition of New Battery Packs to Unit 2 Emergency Lights to Meet
Requirements of APCSB 9.5-1 & Design Basis Document (LDCR SA-92-769)

Description of Change(s):

DMCFs to DM 92-013 Rev.0 and DM 92-048 Rev.0 add new battery packs to
Unit 2 emergency lights fed from Unit 1 emergency lighting panels EAB7
in the Auxiliary Building and ECB1 and ECB2 in the Control Building.

Summary of Evaluation:

New battery packs are added to Unit 1 emergency lights which are
required to illuminate Unit 2 areas locating fire safe shutdown
equipment and access and egress routes between these areas. These
battery pack lights are fed from Unit 1 emergency lighting panels.
Non-Class 1E branch lighting circuits are properly isolated from Class
1E power supply by the Class 1E circuit breakers located in the
upstream emergency lighting panels. These emergency lighting panels,
in the event of LOCA and/or LOOP, are fed from the Unit 1 Diesel
Generator bus through Class 1E MCCs.

The worst case (blackout condition) loading of Diesel Generator has
increased from 6232.3kw to 6232.6kw due to the additional battery pack
loading of 0.3kw. The new loading of 6232.6kw is less than the rated
capacity of 7000kw. This modification presents no new failure modes
for the plant or any plant systems.

LDCR SA-92-769 revises FSAR Tables 8.3-1A, 8.3-1B and 8.3-2. This
Safety Evaluation is also applicable to the above LDCR.

Evaluation Number
SE-92-141

Activity Title:

Remove and Replace STA-821 Isolation Point Valve XCS-0043 and Perform Post Work Testing To Verify Flow Path and Set Throttle Position

Description of Change(s):

This activity implemented and tested the Train B portion of DM-90-333, Boric Acid Transfer Pumps (BATP) Miniflow Lines Modification, as described in the response to NRC Bulletin 88-04, Potential Safety Related Pump Loss. A review of the Boric Acid Transfer Subsystem revealed potential pump-to-pump interaction when operating the same train pumps from each unit. For this activity, STA-821 isolation points were removed from XCS-0043 (BATP 2-02 Miniflow Isolation) and 2-8463 (BATP 2-02 Suction Isolation), and shifted to 2CS-8446B (BA Filter 2-01 Inlet Isolation) and 2CS-8459 (U2 BATP Recirculation Isolation). This provided double valve isolation to Unit 2 during both Train A and Train B work and testing. Safety Evaluation SE-92-90 was issued for DM-90-333. Safety Evaluation SE-92-100 was issued for the removal of "LC-2" designations from the U1/U2 CVCS systems.

Summary of Evaluation:

No new failure mechanisms are introduced by the implementation of this activity. This modification will mitigate a potential pump-to-pump interaction mechanism.

The Boric Acid Transfer System is the preferred boration pathway for normal operational transients and the alternate diverse shutdown source. During implementation of this activity, BAT Pump 1-01 and BAST X-01 will remain operable and in service.

Evaluation Number
SE-92-142

Activity Title:

Clarify Spent Fuel Pool Cooling As-Built Condition

Description of Change(s):

The maximum pool temperature for an emergency core offload, Component Cooling Water temperatures during normal cooldown, pool storage capacities and volumes, and minimum time to boiling are updated and clarified.

Summary of Evaluation:

The ability of the Spent Fuel Pool Cooling, Reactor Make-Up Water, and Fire Protection Systems to maintain adequate levels of water in the Spent Fuel Pools for all design basis events has been demonstrated. Sufficient times for operator action, adequate make-up volumes and delivery rates and system designs ensure an unreviewed safety question does not exist.

Evaluation Number
SE-92-143

Activity Title:

Revision of FSAR Chapters 4 and 15 to Provide Updated Information on
Computer Codes Used in CPSES Analyses (LDCR SA-92-748)

Description of Change(s):

The Comanche Peak Steam Electric Station (CPSES) Final Safety Analysis Report Sections 4 and 15 have been amended to provide updated information on computer codes. The computer code names have been changed to reflect the version of the codes which were actually used in CPSES analyses. The new codes are updated versions of the older codes. The new codes utilize the same basic theory and are fundamentally the same as the original codes. The improvements are primarily related to convenience. The estimated accuracy of the analytical methods, as discussed in Section 4.3.3.3 of the CPSES FSAR, remain valid for the updated computer codes.

Summary of Evaluation:

There are no structures, systems, or components and/or system parameters affected by implementation of this revision because the analytical results presented in the FSAR are unchanged. Revising FSAR Sections 4 and 15 for the computer code name changes does not affect the probability of occurrence nor the consequences of an accident or malfunction of equipment important to safety. It does not create a possibility for a new type of accident or malfunction and it does not reduce the margin of safety as defined by the Technical Specifications.

Evaluation Number
SE-92-144

Activity Title:

Replacement of Rad. Monitoring Syst. (RMS) RM-11 CPU & Display Generators with IBM PC Computer Syst. (PC-11); DM 91-101, LDCR SA-92-778

Description of Change(s):

The RMS RM-11 computer system was replaced with the user friendly PC-11 computer system. Remote view nodes were added at the Control Room operator consoles for easier operator access to the system. Printer and view node cabinets were added at the RMS PC-11 central consoles and remote view nodes. New video and power cables were also installed to support the new PC-11 computer system. The RM-11 computer system was changed because it is obsolete. Replacement parts are unavailable and the system is unreliable and fails frequently causing loss of data and loss of communication with radiation monitors. The present RM-11 system lacks flexibility for hardware/software upgrades. Also, the addition of the Unit 2 radiation monitors to the shared system may add to the communication problem.

Summary of Evaluation:

Replacing the RMS RM-11 computer system with the PC-11 computer system alleviates the problems presently occurring with the RM-11 system. Evaluation indicates that the replacement computer equipment, peripherals and cables installed by this modification are not required to perform any safety function and will not affect any safety systems of either Unit. This modification presents no new potential credible failure modes for the plant or any plant systems. The additional loadings to the distribution panels and transformers have been evaluated by load calculations and found acceptable. The new cabinets have been seismically mounted and qualified, and evaluated to assure that they will not interact nor adversely affect safety related equipment. Also, the new computer equipment mounted in the existing seismically mounted consoles has been evaluated to assure that it will not interact with nor adversely affect safety related equipment.

Evaluation Number
SE-92-145

Activity Title:

Cross-Tie Restoration U2/U1; Line 4-BR-2-017-151R-5, 2-BR-2-003-151R-5
& 4-BR-2-018-151R-5 (DMs 90-458, 459 & 460; LDCRs SA-91-190 & 195)

Description of Change(s):

Piping in the Boron Recycle System was physically separated in order to terminate the transmission of unacceptable pipe stress to the Unit 1 jurisdictional piping. Since the associated Unit 2 interconnecting piping is completed and boundary isolation is already provided by locked closed (LC-2) valves, the separation can be restored. The piping will be spooled through by welding, physically reconnecting the Unit 1 and Unit 2 piping. System parameters are unaffected by this activity since functional isolation exists at valves XBR-8687, XBR-8686 and XBR-8688. This DM restores the piping to the configuration as depicted in the original design basis, prior to making the separation.

Summary of Evaluation:

The implementation of Design Modifications 90-458, 459 and 460 does not involve an Unreviewed Safety Question. The system has been analyzed in both conditions of with and without the cross-ties existing. No new credible failure modes for any of the equipment important to safety as described in the licensing basis documents, which involve structures, systems or components and/or system parameters described in the Safety Evaluation, could be affected by implementation of this activity.

Evaluation Number
SE-92-146

Activity Title:

Installation of Two New Ionization Detectors in Rooms X-172 and X-173
in the Auxiliary Building (DM 92-074)

Description of Change(s):

At present, rooms X-172 and X-173 in the Auxiliary Building, Elevation 790'6" do not have ionization detectors installed. In order to ensure compliance with NFPA-72D which is part of fire safe shutdown analysis, DM 92-074 proposes to install two detectors, one in each room. The existing fire detection loop will be extended to include these new detectors. The work can be accomplished without impact to Unit 1 operation. The only licensing basis document requiring revision is the Fire Protection Report, Section IV. LDCR FP-92-006 was generated to accomplish this change.

Summary of Evaluation:

Implementation of this change to add the detectors in rooms X-172 and X-173 in the Auxiliary Building at Elevation 790'6" to ensure compliance with NFPA-72D which is part of the fire safe shutdown analysis will not adversely affect any systems, components and structures, and will not increase the probability/possibility/consequences of accidents or malfunctions of equipment important to safety, or will not decrease the margin of safety as defined in the basis for any Technical Specification, and will not create an unreviewed safety question.

Evaluation Number
SE-92-148

Activity Title:

Water Treatment Temporary Modification to Provide Water to Unit 2

Description of Change(s):

This temporary modification will supply up to 400 gpm of additional demineralized water from the lake to supplement the present water treatment system until DM 90-494 is completed. The modification will pump water from the plant Filtered Water Storage Tank, process the water with temporary trailers and return demineralized water to the plant Demineralized Water Storage Tank. This modification will be used to supplement the in-plant water treatment system which will remain fully functional. This modification was required to support Unit 2 operation.

Summary of Evaluation:

The water treatment system cannot cause failures in the plant that have not been previously reviewed. The water treatment system is completely divorced from the safety related and radioactive systems. Modifications that allow the connection of temporary trailers outside of the protected area will not impact the safe shutdown features in the plant. This modification will not affect the safety related water storage or systems.

Evaluation Number
SE-92-149

Activity Title:

Change FSAR Section 13.2.1.1.13 & TRA-295; Specify Training & Quals.
of STAs in Accord. with NUREG-0737, Item I.A.1.1 (LDCR SA-92-782)

Description of Change(s):

This change is to specify requirements for the training and qualification of non-licensed Shift Technical Advisors (STAs) per Option 2 of Generic Letter 86-04 and NUREG-0737. CPSES committed to Option 2 of Generic Letter 86-04 per TXX-4814. Option 2 endorses the requirements of NUREG-0737, I.A.1.1 which finds the INPO Guidelines an acceptable method to train and qualify personnel staffing the STA position. Technical Specification Table 6.2-1 allows the STA position to not be staffed if the on-shift Senior Reactor Operator (SRO) meets the engineering expertise requirements of Option 1 of Generic Letter 86-04 which permits the SRO/STA position to be combined. CPSES has been manning this combined SRO/STA position for Unit 1 as there were an adequate number of personnel meeting the requirements, and the combined SRO/STA position was not distracted by two Unit operation. With the pending licensing and operation of Unit 2, it is now necessary to implement Option 2 of Generic Letter 86-04 to enable a single on-shift STA to assist either Unit SRO in transient and accident analysis and mitigation of core damage if the need should so arise.

Summary of Evaluation:

No unreviewed safety question exists as no credit was taken for any Shift Technical Advisor actions in the Final Safety Analysis. The change has no impact on any structure, system or component (SSC) important to plant safety. The STA position is an advisory position which assists the on-shift SRO in transient and accident analysis and mitigation of core damage in the event of a plant transient or accident. The STA does not assume this role until after the onset of a plant transient or accident. Therefore, the STA cannot contribute to any initiating event which could possibly create an unanalyzed accident.

Evaluation Number
SE-92-150

Activity Title:

Cross-tie Restoration U1/U2 on Line 4-WP-X-573-151R-5 (Liquid Waste Processing System); DM 92-030, LDCR SA-92-774

Description of Change(s):

A blank was installed in the Liquid Waste Processing System (LWPS) line 4-WP-X-573-151R-5 in order to isolate Unit 1 from Unit 2, during construction of Unit 2, to prevent the transmission of potentially radioactive fluid. Since the associated Unit 2 interconnecting piping is complete and Unit isolation is provided by locked closed valve XWP-0193, the separation may be restored. This restoration will be accomplished by installing a permanent spacer in place of the blank currently installed. System parameters are unaffected by this activity since functional isolation exists at valve XWP-0193. This activity returns the system to the configuration as described in the Design Basis Documents.

Summary of Evaluation:

The implementation of Design Modification 92-030, Revision 0 does not involve an unreviewed safety question. The LWPS is classified as Non-Nuclear Safety Related and is not required for safe shutdown of the plant. Since the activity does not affect the functional separation of the system, there are no credible potential failure modes introduced by implementation of this activity. Since any leakage associated with this activity is enveloped by the uncontrolled release evaluated in Chapter 15 of the FSAR (Reference: Section 15.7.2), there are no accidents or malfunctions of equipment important to safety described in the Licensing Basis Documents that could be affected by implementation of this activity. There are no Technical Specifications that apply to the Liquid Waste Processing System, and thus none are affected by implementation of this activity.

Evaluation Number
SE-92-151

Activity Title:

Add Hardware, Modify Refueling Machine to Facilitate the Detection of Failed Fuel Assemblies (In-Mast Sipping); DM 92-070, LDCR SA-92-785

Description of Change(s):

In order to provide a high degree of accuracy in fuel inspection, with little or no scheduler impact during refueling operations, the addition of In-Mast Sipping System hardware and modifications are made to the existing Refueling Machine. This modification will not alter the function, requirements, limits, setpoints, response, or integrity of the Refueling Machine. The Refueling Machine will continue to operate in a manner unchanged by the modifications.

Summary of Evaluation:

The addition of In-Mast Fuel Sipping hardware to the Refueling Machine to facilitate detection of failed fuel assemblies is acceptable. The addition of the hardware meets all original design requirements for the Refueling Machine (the Refueling Machine is classified as Non-Nuclear Safety equipment). There is no mechanism by which the subject modification could affect other portions of the refueling Machine. Additionally, no other components or systems connected with the Refueling Machine could be adversely affected by the subject modification. The potential of the consequences of an accident related to fuel handling is unaffected by this modification. Existing accident analyses remain unaffected because analyses show that Refueling Machine integrity is unaffected by the modification. It was also determined that the proposed modification does not impact Technical Specifications or Emergency Operating Procedures. No credible failure modes are associated with this modification.

Evaluation Number
SE-92-152

Activity Title:

LCO Tracking Program

Description of Change(s):

The change to ODA-308, "LCO Tracking Program", modifies a commitment made in LER 90-014-00. The commitment in question requires the Shift Technical Advisor (STA) to review all LCOARs prior to LCO entry and exit whenever the Unit is in operational modes 1-4. The change to ODA-308 will allow any SRO to perform that function.

The reason for the change is that with two Unit operation near, a situation could occur where the Unit Supervisor for Unit 2 is also fulfilling the STA function for the Control Room. This commitment forces the Unit 2 Unit Supervisor to review all LCOARs for Unit 1 prior to entry and exit of the LCO. This would require the STA/Unit Supervisor of one Unit to maintain status of the other Unit as well. It is felt that there will be times when this collateral duty is too great for a Unit Supervisor to accomplish and still perform his primary duties.

The intent of the LER commitment was to reinforce the Unit Supervisor's LCOAR review by having an equally qualified individual also perform the review when the Unit was in modes 1-4. This change will allow the Shift Supervisor the flexibility to choose any SRO to review the LCOAR along with the affected Unit's Unit Supervisor. If the STA is the other Unit's Unit Supervisor and the Shift Supervisor does not feel he should be distracted from his primary duties, then another SRO can be selected to perform the LCOAR review.

This change will allow the Shift Supervisor to more easily distribute personnel as he sees fit for the safe operation of both Units.

Summary of Evaluation:

This change does not involve any structures, systems or components, or a change in the actual operation of the plant or to the Technical Specifications. It involves a change to an administrative process (which is not described in the FSAR) regarding implementation of Technical Specifications and has no effect on accidents or malfunctions evaluated in the Licensing Basis.

Evaluation Number
SE-92-154

Activity Title:

Unit 2 Integrated Safeguards Actuation Test (ITS) Impact on Unit 1
(LDCR SA-92-803)

Description of Change(s):

During performance of ITS, Unit 2 will be the power source for the Unit Common Class 1E and Non-Class 1E MCCs. This will impact the operability of various Unit 1 equipment. Since ITS will be performed only during Mode 6 and/or fuel off load, this evaluation will review the Unit 1 operability requirements for these Modes to ensure there is no unanalyzed event.

Summary of Evaluation:

This activity will not increase the probability of occurrence or consequence of an accident previously evaluated in the licensing basis documents. The impact on the systems affected by ITS that are required for Unit 1 Mode 6 and/or fuel off load is considered an operating condition allowed by the CPSES Technical Specifications.

The potential impact of the activity on the operability of the required systems was evaluated against the requirements of the CPSES Technical Specifications and FSAR. In all cases the systems and components that became inoperable do not impact the ability of Unit 1 to maintain a Safe Shutdown condition.

The activity does not reduce any margin of safety as defined in the basis for any Technical Specification because no safety limits were impacted by this activity. An analysis of the expected rise in the fuel pool will be completed prior to tripping the pumps to ensure the temperature does not exceed 142 degrees F.

Evaluation Number
SE-92-155

Activity Title:

Deletion of Unit 2 Load at Ckt #9 of Panel XC6-1 (LDCR SA-92-801)

Description of Change(s):

MM #92-175 is determining and splicing cable NK045879 at ckt #9 of 118VAC distribution panel XC6-1. This is required because DCA 93760, Rev. 1 is deleting sample pump CP2-VDAPRE-01. The deletion of Unit 2 load from Non-Class 1E common distribution panel XC6-1 is required to prevent a transmission of fault on Unit 2 load to Unit 1 or common panel.

Summary of Evaluation:

Deletion of Unit 2 load at ckt #9 of panel XC6-1 is going to improve the load capability of panel XC6-1. Also, deletion of Unit 2 load from common panel XC6-1 is going to prevent any fault on Unit 2 load propagating to Unit 1 or common panel (it is removing the interface connection from Unit 2 and Unit 1 or common). Further, this activity will not create any adverse effect on voltage drop, circuit protection, short circuit, isolation, electrical separation, system interaction and system function.

Evaluation Number
SE-92-156

Activity Title:

Restoration of Unit 1, Common and Unit 2 Cross-Tie Between Spent Fuel Pool Cooling and Cleaning System and the Safety Injection System

Description of Change(s):

Line 4-SI-2-318-151R-5 was physically separated during Unit 2 construction, via DCA 74591, to preclude the transmission of unacceptable pipe stress to the Unit 1 jurisdictional piping and to prevent the transmission of potentially radioactive fluid. Since the Unit 2 interconnecting piping is complete and Unit isolation is provided by valve XSF-0175, the separation may be restored. The piping will be spooled through by welding, physically reconnecting the Unit 1/Common Spent Fuel Pool Cooling and Cleaning system and Unit 2 Safety Injection system piping.

System parameters are unaffected by this activity since functional isolation exists at valve XSF-0175.

This activity returns the system to the configuration as described in the Design Basis Documents.

Summary of Evaluation:

The implementation of Design Modification 90-456 Revision 0 does not involve an unreviewed safety question. This portion of the Safety Injection system is Non-Nuclear Safety Related and is not required for safe shutdown of the plant.

Since the activity does not affect the functional separation of the system, there are no credible potential failure modes introduced by implementation of this activity.

Since any leakage associated with this activity is enveloped by the uncontrolled release evaluated in Chapter 15 of the FSAR (ref. Section 15.7.2), there are no accidents or malfunctions of equipment important to safety described in the Licensing Basis Documents that could be affected by implementation of this activity.

All Technical Specifications associated with the Spent Fuel Pool Cooling and Cleaning and Safety Injection systems were reviewed for applicability to this modification. Since this activity does not affect the functional separation of the system and the physical work is to be done in Unit 2, no Technical Specifications were found to be relevant to this modification.

Evaluation Number
SE-92-159

Activity Title:

Change Position of XVD-0309 from Locked Closed to Open, Remove from STA-821 Program & Update Procedure RWS-108 and Flow Diagram M1-0237

Description of Change(s):

Valve XVD-0309, U2 CCW DRN TK/DG SMP PMP DISCH DRN HDR to LVW/EVAP POND ISOL VLV, is the isolation between the Unit 2 Diesel Generator Building sumps and Component Cooling Water Drain Tank and the Unit 1/Common Co-Current Waste System. The valve needs to be removed from the STA-821, Unit Interfaces and Isolation Control Program, and opened to allow the systems to operate as described in the Licensing Basis Documents. This will require a change to procedure RWS-108, Vents and Drains System, to show the valve in the open position in its valve line-up. A drawing change will be required to flow diagram M1-0237 to show valve XVD-0309 as a normally open valve.

Summary of Evaluation:

This change does not affect any Safety Related or Important to Safety equipment or components. There is only one general Technical Specification, ODCM 3/4.11.1, related to the discharge of radioactive (potentially radioactive) liquid waste effluent. This specification requires that the effluents be sampled and analyzed to ensure the effluent meets acceptance limits of the specification. In order to meet these requirements, valve XVD-0309 must be opened to allow the sump and drain tank effluents to be directed to the Co-Current Waste System Waste Water Holdup Tank for sampling and analysis to be performed prior to discharge from the plant. Therefore, the opening of this valve does not impact plant safety nor does it pose an unreviewed safety question. The system will be operated by the existing site procedures and under the direction of the Offsite Dose Calculation Manual, ODCM, programs which already take into account these effluents in its calculations.

Evaluation Number
SE-92-160

Activity Title:

Add Hardware and Modify Existing Refueling Machine to Facilitate the Detection of Failed Fuel Assemblies (In-Mast Sipping); DM 92-089 R.0

Description of Change(s):

In order to provide a high degree of accuracy in fuel inspection, with little or no scheduler impact during refueling operations, the addition of In-Mast Sipping system hardware and modifications are made to the existing Refueling Machine. This modification will not alter the function, requirements, limits, setpoints, response, or integrity of the Refueling Machine. The Refueling Machine will continue to operate in a manner unchanged by the modifications.

Summary of Evaluation:

The addition of In-Mast Fuel Sipping hardware to the Refueling Machine to facilitate detection of failed fuel assemblies is acceptable. The addition of the hardware meets all original design requirements for the Refueling Machine (the Refueling Machine is classified as Non-Nuclear Safety equipment). There is no mechanism by which the subject modification could affect other portions of the Refueling Machine. Additionally, no other components or systems connected with the Refueling Machine could be adversely affected by the subject modification. The potential or the consequences of an accident related to fuel handling is unaffected by this modification. Existing accident analyses remain unaffected because analyses show that Refueling Machine integrity is unaffected by the modification. It was also determined that the proposed modification does not impact Technical Specifications or Emergency Operating Procedures. No credible failure modes are associated with this modification.

This summary is technically identical to that of SE-92-151.

Evaluation Number
SE-92-161

Activity Title:

Cross-tie Restoration U1/U2 on Line 2-WP-X-454-151R-5 (DM 92-088,
LDCR SA-92-814)

Description of Change(s):

A blank was installed in the Liquid Waste Processing System (LWPS) line 2-WP-X-454-151R-5 in order to isolate Unit 1 from Unit 2 during construction of Unit 2 to prevent the transmission of potentially radioactive fluid. Upon completion of Unit 2 interconnecting piping, the reparation may be restored. Unit isolation will continue to be provided by valve XWP-0160. This restoration will be accomplished by removal of the blank currently installed.

System parameters are unaffected by this activity since functional isolation exists at valve XWP-0160. This activity returns the system to the configuration as described in Design Basis Documents.

Summary of Evaluation:

The implementation of Design Modification 92-088 Revision 0 does not involve an unreviewed safety question. The LWPS is classified as Non-Nuclear Safety Related and is not required for safe shutdown of the plant.

Since the activity does not affect the functional separation of the system, there are no credible potential failure modes introduced by implementation of this activity.

Since any leakage associated with this activity is enveloped by the uncontrolled release evaluated in FSAR Chapter 15 (Reference: Section 15.7.2), there are no accidents or malfunctions of equipment important to safety described in the Licensing Basis Documents that could be affected by implementation of this activity.

Radioactive liquid effluent concentration levels discussed in Technical Specification/ODCM 3/4.11.1 will not be affected by implementation of this modification since this activity will not increase the concentration of radioactive materials in plant liquid waste effluent.

Evaluation Number
SE-92-162

Activity Title:

Remove Steam Generator Low Pressure and Low Level Anti-Water Hammer Interlocks (DM 92-080, LDCR SA-92-800)

Description of Change(s):

Spurious trips due to Feedwater isolation can be attributed to the Steam Generator low pressure or low level signals in the anti-water hammer interlock circuit. This activity proposes to delete these interlocks since their likelihood of occurrence during Mode 1 operation is very low and can only be a source of unnecessary plant trips.

Summary of Evaluation:

This activity involves determining wires to the slave relay coils in the SSPS Cabinets for low S.G. pressure and level, adding jumpers across their contacts that are normally closed and disconnecting leads of their contacts that are normally open. No component/device is being added nor removed by this activity. The credible failures that could be introduced by this activity is that the jumpers open up or that the deactivated open contacts get shorted.

The credible failures described above fail in the safe mode. The opening of the jumpers or shorting out of the determined contacts will cause Feedwater isolation and subsequent Reactor trip. This is not a safety concern but rather has operational and commercial impact.

There are no accidents or malfunctions of equipment important to safety described in the Licensing Basis Document that involves the water hammer minimization system. Credit is not taken in any accident analysis described in Chapter 15 of the FSAR for this system.

Evaluation Number
SE-92-163

Activity Title:

Temporary Modification of Internals of Valve 2-8629, Unit 2 CVCS
Suppl. Isol. (DM 90-452), Restore and Remove from STA-821 Program

Description of Change(s):

Valve 2-8629 is controlled by STA-821 as a radiological isolation point. To ensure positive isolation during implementation of DM 90-452 for Boron Recycle System to Chemical and Volume Control System cross-tie piping, the internals and bonnet are removed from valve and temporary internals and bonnet are installed to provide a positive dam and a tell-tale drain to detect leakage past the dam from Unit 1. At completion of the installation of DM 90-452 and the completion of the Unit 2 RCA lockdown, valve 2-8629 will be restored to its design configuration and removed from the STA-821 isolation valve program.

Summary of Evaluation:

This activity does not affect any Safety Related or Important to Safety equipment or components. There are no Technical Specifications affected. This cross-tie between the Boron Recycle System and the Chemical and Volume Control System is not taken credit for in any accident or malfunction. Therefore, the implementation of the activity including restoration which will return the systems to their design condition is acceptable as it does not impact plant safety nor does it pose an unreviewed safety question.

Evaluation Number
SE-92-164

Activity Title:

Provide Temporary Power to Class 1E Control Rm. Gas Monitors & Assoc. Relays (Modes 5 & 6), and to Containment PIG Assoc. Class 1E Relays

Description of Change(s):

Temporary Modifications (TM) will provide power to radiation monitoring equipment required during Unit 1 RF-02 Electrical Power Train-A (B) outage. The temporary power will be provided from Non-1E Plant Support Power that is connected to two 142.3/26.4 kV transformers serviced by off-site power from a reliable electrical network. With the exception of Control Room Gas Monitors and 1E relays, other radiation monitoring loads that will be powered by this TM are Non-1E electrical loads.

The Control Room Gas Monitors are safety related monitors that are required during all modes of plant operation, per Technical Specification 3.3.3.1. For selected HVAC intake, both (Train-A & Train-B) monitors should be operable; otherwise Action Statement #28 requirements must be invoked. During Train-A (B) power outage(s), the action statement would require that the fresh air supply fans be secured and that the Control Room be maintained in Emergency Recirculation for an extended period of time. This is not desirable during a routine plant outage (a normal plant condition) in an area which is occupied all the time and where smoking is permitted. Hence it is essential to provide alternate (temporary) power to these 1E radiation monitors during Electrical Power Train A & Train B outages and the Integrated Test Sequence (ITS).

Summary of Evaluation:

The temporary power is non-1E power. This activity is not in compliance with Design Basis Document DBD EE-023, which requires that: "All components of the RMS (Radiation Monitoring system) requiring electrical power, shall be energized from electrical systems which support the components operational requirements during all Modes." Since the alternate power is not as reliable, it increases the possibility of loss of power to the identified equipment. This may result in more frequent initiation of the Control Room Recirculation or the Containment Ventilation Isolation (CVI) during normal operation, which is more conservative than as defined in the Licensing Basis Documents (LBDs). [It should be noted that initiation of the Control Room Recirculation or the CVI due to a loss of power may be a Licensee Event Report (LER) condition.]

The potential failure modes, as identified, are fail-safe conditions. The Control Room Emergency Recirculation is the mode of operation of the associated equipment, designed to mitigate the consequences of possible accidents, as evaluated in the LBDs. Hence they could not create the possibility of an accident different from any accident already evaluated.

The LBDs take credit for the identified equipment while evaluating the

Evaluation Number
SE-92-164

Control Room habitability after the following accidents: Small Line Break Outside Containment, Liquid Waste Tank Rupture, Fuel Handling Accident, and Rod Ejection Accident. Technical Specifications require that the Containment PIG be operable in Mode 6; however, the DBDs do not take credit for the Containment PIG (or the associated relays), in Radiological Accident Analyses for CPSES. The analyses conclude that the calculated whole body and thyroid doses at the Exclusion Area Boundary and the Low Population Zone are within 10CFR100.11.

The change proposed does not affect the margin of safety because loss of power will initiate the Control Room Recirculation or CVI at or before the time when radiation levels reach the setpoint values. There is no decrease in the difference between the acceptance and failure limits. Also, the activity does not delete any designed circuit protection elements or add any new loads to designed circuits associated with the identified equipment.

Evaluation Number
SE-92-166

Activity Title:

Install Temporary Modification to Restore Containment Air Radiation Monitor (ARM) Until the ARM Return Line Valve can be Repaired

Description of Change(s):

Temporary Modification 92-1-88 provides a temporary discharge outlet for the Containment Air Radiation Monitoring unit 1-RE-5502/03/66 until 1-HV-5547 (Containment ARM return line valve) can be repaired. The alternate Containment air sample discharge path will occur by opening valve 1RM-0012, discharging the air sample to the Safeguard Building exhaust via a Tygon hose. The Safeguard Building HVAC exhausts to the Primary Plant Exhaust Air system, through HEPA & charcoal filtration units, and out through the vent stack. This is the same discharge path through the filters and out the plant vent stack as normal discharges from Containment through the Containment pressure relief valve. The Radiation Monitor sampling will continuously discharge 5 SCFM from Containment to the plant vent stack.

Summary of Evaluation:

There was no Unreviewed Safety Question involved with this Temporary Modification. Failure of the Rad Monitor or the Tygon hose will not initiate any events of consequence. Returning the Rad Monitors to service enhances plant safety. The most credible event would be the rupture of the Tygon hose. The rupture of the hose will have no effect on plant radiation levels because the sampled air is monitored by Rad Monitor 1-RE-5502/03/66 prior to being discharged into the Tygon hose. If a high radiation level is detected, Operations will respond by securing the Containment PIG and discontinue sample discharge by closing 1RM-0012 or as a minimum verifying that the Tygon hose is still installed. Operations will check on the temporary modification installation at least once every 24 hours while normal radiation levels are indicated by the Containment PIG. If high radiation levels are detected (i.e. Alert alarm) then the inspection frequency will be increased to once per shift. Effective sealing of the sample pump inlet area from the discharge area is accomplished by use of very small operating clearance between the impellers of the positive displacement sample pump. The Containment sampling penetration is isolated on a Phase A Containment Isolation Signal. The Class 3 Safeguards Building exhaust duct work will not be affected because the access plate being installed will meet MS-85 criteria for Class 3 duct work. A 5/8" hole will be drilled and tapped into the plate for the hose connection. Failure of the hose or hose connection will not affect the ventilation system because the 5/8" diameter hole would not significantly reduce the air flow from the Letdown Reheat Heat Exchange room since the duct size is 6" diameter.

Evaluation Number
SE-92-168
Revision 1

Activity Title:

Implementation of Unit 2 Flush Plan of Unit Common Equipment and
Performance of Flow Balancing of Unit 2 CCW System

Description of Change(s):

Various valves in the Unit 2 Component Cooling Water (CCW) System which supply and return Unit 2 CCW to Unit Common equipment are controlled under the STA-821 program as Unit separation isolation points. This evaluation will allow a temporary release of these isolation points to allow Unit 2 testing to be performed on Unit Common equipment which will eventually be supplied by Unit 2 or be capable of being supplied by Unit 2 CCW System. The Shift Supervisor and Station Operating Procedures, SOP-502A and SOP-502B, will direct these activities.

Summary of Evaluation:

This evaluation has determined that for the Non-Safety Related but Important to Safety equipment/components, the proposed activity may be performed at any time in any Mode of Unit 1 operation as these components are not Technical Specification affected and will not impact Unit 1 operation. For the Safety Related and Important to Safety equipment/components, Technical Specifications state that Unit 1 will need to be in Modes 5 or 6 for this activity where it relates to the Safety Related components. Even in this condition, Unit 1 will have to enter an Action Statement for this part of this activity to be performed. There are no acceptance limits or failure values which will be exceeded during this proposed activity performance.

Revision 1 to this Evaluation deletes the statements that indicate that the Safety Related components are aligned in train orientation only, providing one train with 100% capacity to Unit 1 at all times. 2CP-PT-1101 Rev. 1 requires Unit 2 CCW flow through two Control Room Air Conditioning (CRAC) units. The 10CFR 50.59 screen for 2CP-PT-1101 Rev. 1 references TE 92-1221 and TE 92-2291 which addresses the capability of a single train CRAC unit to maintain the Control Room design temperature requirements providing the outdoor ambient temperature is < 90 degrees F, Station Service Water (SSW) is < 77 degrees F, and SSW/CCW fouling factor is less than 0.0012. Therefore, this revision does not change the Evaluation results concluding that Technical Specification 3.4.7.7 will be satisfied.

Evaluation Number
SE-92-169

Activity Title:

Thermo-Lag Upgrade (DM 92-077, LDCR SA-92-B22)

Description of Change(s):

DM 92-077 upgrades the Thermo-Lag installation on 3/4" and 1" conduits. This change does not require the subject conduit's cables to be deenergized in order to be implemented, and therefore may be implemented on line. However, due to the sensitive nature of the equipment attached to some of the conduits, it is desirable to perform the majority of the construction work during an outage. This change is being made because recent confirmatory fire testing has indicated that the currently installed Thermo-Lag configuration does not meet the criteria for a 1-hour rated fire barrier. CPSES is committed to installing a 1-hour rated fire barrier configuration for the protection of cables and raceways required for Fire Safe Shutdown.

Summary of Evaluation:

Modification of the Thermo-Lag installation can have two possible impacts on the facility. The new configuration imposes an extra load on the conduits and associated supports and requires that a higher ampacity derating factor be applied on the contained cables. A review of the design of the conduit systems was performed and all the conduits and supports associated with the Thermo-Lag upgrade were found to be adequate for the increased structural loading. Therefore, the increased load imposes no new failure modes or increases the probability of failure. A review of the cable sizing showed that all the cables contained within the subject conduits were correctly sized such that an increased ampacity derating factor does not affect the functional performance of the cables. Therefore, the application of an increased ampacity derating factor imposes no new failure modes or increases the probability of failure.

Evaluation Number
SE-92-170

Activity Title:

Temporary Testing Release of Isolation Point at Valve XWP-160 and
Blind Flange in Line 2-WP-X-454-151R-5

Description of Change(s):

Liquid Waste Processing System (LWPS) Test Procedure 2CP-PT-41-01 requires proof of the Unit 2 floor drain tank pump discharge flow path which involves transfer of non-radioactive water from Unit 2 to Unit 1 through the interface point in line 2-WP-X-454-151R-5. The interface point is detailed in FSAR Figure 11.2-4 Sheet 1 as a locked closed valve (XWP-160) and a blind flange. This Unit separation provided radiological separation between Unit 1 and Unit 2 during Unit 2 construction completion. It will be temporarily restored to support testing. Upon completion of testing, the Unit separation will be reestablished.

Summary of Evaluation:

Temporary release of this isolation point does not involve an unreviewed safety question. The LWPS is classified as non-nuclear safety related and is not required for safe shutdown of the plant.

There are no potential failure modes introduced to the Unit 1 portion of the system by this activity because no modification of the Unit 1 hardware is involved and the system will be operated within design parameters in accordance with operating procedures.

While the possibility of leakage exists in the Unit 2 portion of the system during this activity, that possibility is minimized by specified work controls and system alignment. Leakage is easily enveloped by the uncontrolled release evaluated in Section 15.7.2 of the FSAR. There is no licensing basis accident affected or created by this activity.

This activity will transfer non-radioactive water only from Unit 2 to Unit 1 and therefore will not impact plant Technical Specifications.

Evaluation Number
SE-92-172

Activity Title:

Add Temperature Switches and Revise Note 8 in Flow Diagram for Service Water Intake Structure Ventilation System (LDCR SA-92-823)

Description of Change(s):

Added temperature switches X-TS-6755, 6756, 6757 and 6758 to flow diagram M1-0312 Rev. CP-9 to agree with ICD M1-2312-01 Rev. CP-6 and schematic drawings E1/E2-0043-17, 18, 19 and 20. Also revised note 8 to show actual configuration. This is a paper change only.

Summary of Evaluation:

Service Water Intake Structure (SWIS) exhaust fans CPX-VAFNWV-02 through-09 initially had local manual start-stop pushbutton control. The intended function of these fans is to maintain SWIS temperatures within Technical Specification 3/4.7.10 limits during normal and emergency mode of operation. Automatic control of these fans will maintain SWIS temperatures within desired limits without operator action.

Unit 1 exhaust fans CPS-VAFNWV-06 and 07 are powered from Train A MCC 1EB3-3 and fans CPX-VAFNWV-08 and 09 are powered from Train B MCC 1EB4-3. Unit 2 exhaust fans CPX-VAFNWV-02 and 03 are powered from Train A MCC 2EB3-3 and fans CPX-VAFNWV-04 and 05 are powered from Train B MCC 1EB4-3. Redundancy in equipment and power supplies enables the system to sustain a single active component failure without loss of function.

This is a paper change only. This change does not increase the probability of any accident previously identified, or create the possibility of an accident different than previously evaluated, or decrease the margin of safety. Implementation of this activity does not constitute an unreviewed safety question.

Evaluation Number
SE-92-174

Activity Title:

Change FSAR Table 3.8-1 to Update Unit 1 Results and Section 3.8.4.3.3
Page 3.8-121 to Correct Ommision/Typographical Error (LDCR SA-92-825)

Description of Change(s):

Revises FSAR Table 3.8-1 to reflect the correct shear allowable stress values and update the actual shear stress values for reinforcing steel. The shear allowable stress used for Reactor Building Steam Generator Upper Lateral Support Beam (Structural Steel) was incorrectly taken as 25 ksi instead of 20 ksi. The shear allowable stress for Auxiliary Building 5-A Wall East of F-A above EL 790'-6", Fuel Building C-F Wall Above EL 860'-0" South of Col. Line 1-F, Safeguards Building 4-S Wall Below EL 810'-6" and 8-S Wall Between EL 773'-0" and 790'-6" (Reinforcing Steel) was incorrectly taken as 54 ksi instead of 51 ksi.

Revises FSAR Section 3.8.4.3.3 page 3.8-121 to correct omission of Load Combination equation 2.b.2 for local stresses caused by concentrated loads.

Summary of Evaluation:

There are no safety considerations associated with this change. The actual shear stresses calculated in accordance with Sections 3.8.2, 3.8.3 or 3.8.4 of the FSAR are less than the shear allowable stress introduced by this change. The revision to the FSAR Section 3.8.4.3.3 page 3.8-121 is editorial.

Evaluation Number
SE-92-176

Activity Title:

Re-analysis of Offsite Radiation Doses due to Containment Pressure
Relief Line Releases During a LOCA (LDCR SA-92-768)

Description of Change(s):

During the Unit 2 evaluation of postulated offsite radiation doses due to Containment pressure relief line releases during a LOCA, it was determined that the Unit 1 calculation conservatively did not consider the installation of a 3 3/8" flow restricting orifice plate in the relief line ductwork. The calculation also assumed that a 3" Reactor Coolant line break inside Containment would result in the highest doses. A spectrum of line breaks was subsequently reviewed and lower radiation doses were calculated based on the 1" limiting line break, consideration of the orifice plate, and other updated parameters.

Summary of Evaluation:

The calculated radiation doses are significantly less than the postulated LOCA doses based on Containment leakage and Emergency Core Cooling system leakage outside Containment. These doses remain within 10CFR100 guidelines. In addition, the analysis does not impact plant structures, systems, components, or operating procedures. Therefore, an unreviewed safety question does not exist.

Evaluation Number
SE-92-177

Activity Title:

Qualification of 1 & 2CC-0611 and 1 & 2CC-0618 as Active Valves
(LDCR SA-92-836)

Description of Change(s):

Identifies 1 & 2CC-0611 and 1 & 2CC-0618 as active valves.

Summary of Evaluation:

TE 92-469 was generated to request a review of the Component Cooling Water system active valves and safety functions in support of the Inservice Testing (IST) Plan. During this review, it was noted that Design Basis Document DBD-ME-229, Section 5.4.6, took credit for the thermal relief valves on the Reactor Coolant Drain Tank and excess Letdown Heat Exchanger (CC-0611 and CC-0618) to provide thermal relief protection for Containment penetrations MV-3 and MV-4. These valves had not been identified as active. One Form, FX 92-399 was generated to document this condition. Subsequently, Design Engineering completed the qualification of these valves as active and revised Seismic Equipment Qualification Summary Package SEQSP-MS26-02 (Rev. 3). The results of this evaluation indicate that implementation of this activity does not involve an unreviewed safety question.

Evaluation Number
SE-92-179

Activity Title:

Clarify Spent Fuel Pool Cooling As-Built Condition (LDCR SA-92-742)

Description of Change(s):

The maximum pool temperature for an emergency core offload, Component Cooling Water temperatures during normal cooldown, pool storage capacities and volumes, and minimum time to boiling are updated and clarified.

Summary of Evaluation:

The ability of the SFP Cooling, Reactor Make-Up Water, and Fire Protection Systems to maintain the adequate levels of water in the Spent Fuel Pools for all design basis events has been demonstrated. Sufficient times for operator action, adequate make-up volumes and delivery rates and system designs ensure an unreviewed safety question does not exist.

Evaluation Number
SE-92-180

Activity Title:

Effect of Safe Shutdown Impoundment (SSI) Temperature Profile on the Performance of the Residual Heat Removal System (LDCR SA-92-811)

Description of Change(s):

The Safe Shutdown Impoundment (SSI) temperature profile is different than that currently assumed in the Residual Heat Removal (RHR) System cooldown calculations. The scope of this evaluation is limited to determine the effect of the change in SSI temperature profile on the RHR System cooldown capabilities. Loss-of-Coolant Accident (LOCA) considerations are addressed in a separate evaluation. Since the Component Cooling Water temperature will remain within its maximum allowable temperature of 122 degrees F, the operating conditions for the RHR System heat exchanger will remain within its design basis. Although the change in the SSI temperature profile increases the cooldown time starting four (4) hours after plant shutdown, the RHR System will be able to meet its required cooldown time of twenty-four (24) hours, as defined in the Technical Specifications, when initiated twelve (12) hours after plant shutdown.

Summary of Evaluation:

The Component Cooling Water System operating conditions due to the proposed SSI temperature profile changes are within the basis of the Residual Heat Removal (RHR) System heat exchanger, therefore, the operability of the operability of the RHR System is not affected. The effect of the change in SSI temperature profile does not represent a potential unreviewed safety question with respect to RHR System performance, as defined in 10CFR50.59.

Evaluation Number
SE-92-181

Activity Title:

Temporary Modification 92-1-91 to Provide an Alternate Supply Source
of Compressed Air to Line No. 2-CI-X-104-115-5

Description of Change(s):

Provide an alternate supply source of compressed air to items on line
2-CI-X-104-115-5 by cross connecting to alternate branch
2-CI-X-105-115-5. Both branches come off of main supply header
3-CI-X-104-115-5. Line 2-CI-X-104-115-5 will be out of service while
a repair is being made on the connecting line 2-CI-X-100-115-5.

Summary of Evaluation:

Installing a temporary cross-connection from an alternate supply
source will allow air operated valves to Component Cooling Water surge
tank, Safety Chilled Water surge tank, Radiation Monitors X-RE-5570A
and X-RE-5570B, Containment Purge Supply and Exhaust System,
Containment Pressure Relief System, and the Fire Protection System to
remain in service.

Evaluation Number
SE-92-182

Activity Title:

Revise FSAR Section 6.5.2 to Update Sprayed Volume Data for Units 1 and 2 (LDCR SA-92-750)

Description of Change(s):

Revise FSAR Section 6.5.2 to update the average spray drop fall height, sprayed volumes and volume percentages and to update the Containment Spray System Characteristics Table 6.6-5. These changes are based on Calculation 16345-NU(B)-005, Rev. 1.

Summary of Evaluation:

Implementation of this activity has been analyzed in calculations ME-CA-0000-3090 Rev. 0, 16345-NU(B)-024 Rev. 1 and 26345-NU(B)-118 Rev. 0. These calculations have concluded that they will have no effect on the Containment Spray System's iodine removal coefficient or its heat removal capabilities during a LOCA.

These obstructed nozzles have only been removed from the analysis of the sprayed volumes and volume percentages. They have not been removed from service and will spray water (even though obstructed) into the Containment Building upon a Containment Spray actuation.

Evaluation Number
SE-92-183

Activity Title:

Out-of-Tolerance Voltages at 6.9KV & 480V Switchgear Buses
(LDCR SA-92-797)

Description of Change(s):

LDCR SA-92-797 revises the FSAR Table 040.109-2 and provides the minimum allowable voltages at 6.9kV & 480V switchgear buses which match those specified in the Technical Specifications. It also provides the maximum allowable voltages at 480V switchgear buses.

Out-of-Tolerance voltage information is provided for both Unit 1 & 2.

Summary of Evaluation:

The maximum allowable voltage values on 480V switchgear buses as indicated on the FSAR Table are acceptable. The changes in the above table present no new failure modes for the plant or any plant systems and no credible failure modes are associated with the above activity. Based on this evaluation, implementation of the proposed activity does not involve an unreviewed safety question.

Evaluation Number
SE-92-184

Activity Title:

LDCR SA-92-744; Clarification of Essential Structures, Systems & Components

Description of Change(s):

FSAR Sections 3.6B and 7.6.12 are updated to clarify non-safety related (i.e., non-seismic Category 1) essential equipment utilized to mitigate the environmental consequences of postulated high energy line breaks outside Containment. All available equipment credited in the environmental analysis is defined as essential equipment by BTP APCSB 3-1. The change updates the previous description which only included equipment required to mitigate dynamic effects of failures.

Summary of Evaluation:

Since the essential structures, systems and components satisfy the acceptance criteria of BTP APCSB 3-1 and Regulatory Guide 1.29, safe shutdown and the margin of safety are ensured. It was concluded that this change does not involve an unreviewed safety question.

Evaluation Number
SE-92-185

Activity Title:

Update BASES for Tank Volumes for Boration Requirements in Mode 5 and Mode 6 (LDCR TS-92-036)

Description of Change(s):

The bases for the minimum indicated level requirements for the Refueling Water Storage tank and the Boric Acid Storage tanks in Cold Shutdown and Refueling Modes of operation are revised to show the margin between the contained volume and the volume required to perform the safety related function.

There are no changes to the plant or any other licensing basis document or commitment.

The change is proposed in lieu of a License Amendment since the limiting level indication requirements exceed the volumes required for safety.

Summary of Evaluation:

The change clarifies the as-built design of CPSES Units 1 and 2 without changing the Technical Specification limiting conditions.

The margin of safety contained in the required deliverable volume is not affected and was not changed by this change to the BASES. Therefore, this change cannot affect the safety functions or failure modes of plant boration systems.

Based on the results of this evaluation, it was concluded that implementation of this activity does not involve an Unreviewed Safety Question.

Evaluation Number
SE-92-186

Activity Title:

Replace Limitorque Actuator Parts on Auxiliary FW Valves 1-HV-2484 and 1-HV-2485 to Increase Torque Rating and Output (DM 92-091 R.0)

Description of Change(s):

This activity replaces limitorque actuator parts on valves 1-HV-2484 and 1-HV-2485 in the Auxiliary Feedwater System to increase their torque rating and output.

Summary of Evaluation:

The physical replacement of valve motor, gear box and spring pack do not impact the seismic quality of the installation as evidenced by a review of the seismic qualifications. Also, the increase in motor size and cable addition do not adversely affect its ability to perform its safety function or affect any other system important to safety. The ability of these valves to perform their safety function is increased without compromising or affecting any other safety system.

Evaluation Number
SE-92-191

Activity Title:

Review of Loose Parts Monitoring System Setpoint Change as Reported
in TXX-901018

Description of Change(s):

In 1981, TXX-3321 reported to the NRC the setpoint for the Loose Parts Monitoring System was 0.5 ft-lbs., plus or minus 0.25 ft-lbs. While it is still our intent to alarm at this level, the system cannot detect ft-lbs. Instead, the sound of the impact is detected by the sensor and transmitted to the monitor as a change in voltage level.

NRC recognizes that it may be difficult to detect low impact levels in the presence of high background noise levels. Therefore, Reg. Guide 1.133 requires the final setpoints to be reported to the Commission at the completion of initial startup, when the normal operating background levels are known. TXX-901018, Attachment A provides this report.

Summary of Evaluation:

The setpoint change from ft-lbs to a voltage level has no impact. All points but one will still alarm at the original setpoint value. One point, on the Reactor head region, may not be able to detect a 30 lb weight but a review of the Reactor internals has shown a 30 lb weight cannot migrate to the upper head region, and if a 30 lb weight was already loose in that region, there is no medium which could impart sufficient velocity to this weight to cause it to impact the upper head region.

The setpoint change has no safety significance and meets the requirements of Reg. Guide 1.133.

Evaluation Number
SE-92-192

Activity Title:

LDCR SA-92-826: Revises Equipment Principal Design Parameters for Floor Drain Tank Pumps, FSAR Table 11.2-3, SH 7

Description of Change(s):

This change corrects the principal design parameters as stated in the FSAR for the Liquid Waste Processing System Floor Drain Tank Pumps. These pumps are used to transfer non-Reactor grade, low activity floor drainage between the drain tanks, evaporator and monitor tanks. This is a "paper change only" to the FSAR. There is no change to the existing physical plant as a result of this LDCR. FSAR Table 11.2-3, Sheet 7 as currently written does not differentiate between the types of pumps used in this application and the information given is incorrect for flow and head in regard to pumps 1 and 2. This change adds appropriate information for pump 3 and corrects information for pumps 1 and 2. LDCR SA-92-826 changes FSAR Table 11.2-3, Sheet 7 as follows:

1. Add principal design parameters for type, pressure, temperature, flow, head and material for CPX-WPAPFD-01, Floor Drain Tank Pump 3 in accordance with Design Basis Document DBD-ME-264.
2. Correct principal design parameters for type, flow and head for TBX-WPAPFD-01 & -02, Floor Drain Tank Pumps 1 and 2 in accordance with Design Basis Document DBD-ME-0264.

Summary of Evaluation:

The equipment associated with this change performs no safety function. It is utilized during operational modes 1 - 6 but is not required to operate during upset, emergency or faulted conditions. Based on a review of system calculations and Design Basis Documents, it has been determined that the incorrect design parameters currently stated in the FSAR were not used in the original design of the system, accident analyses or system operating evaluations. Therefore, correcting the FSAR Table will not result in an unreviewed safety question.

Evaluation Number
SE-92-193

Activity Title:

Clarification of Manual Active Valves (LDCR SA-92-666)

Description of Change(s):

This activity clarifies (FSAR Section 3.9B.3.2) that for manual active valves (see Design Basis Document DBD-ME-028 for definition), a demonstration of operability of the valve during an SSE is not required and adds these valves to the Active Valve Table (FSAR Table 3.9B-10).

Summary of Evaluation:

Active valves are required to perform a mechanical motion during the course of accomplishing a nuclear safety function as defined in Regulatory Guide 1.48 and Design Basis Document DBD-ME-028, Section 4.2. This may be during or after an event. Manual active valves are those for which credit is taken for post-accident operator action to perform a nuclear safety function (see Design Basis Document DBD-ME-028, Section 5.7). The utilization of a manual active valve is such that these valves are not required to perform a mechanical motion while being subjected to seismic loads. Therefore, a demonstration of operability of the valve during SSE is not required. Once the structural integrity of the valve is ensured by compliance with stress limits using standard design or analysis methods, the capability of the valve to operate is assured by the design features. Active classification is required for safety classification of valve parts. Eight (8) manual valves were added to the Active Valves Table.

Evaluation Number
SE-92-194

Activity Title:

Gaseous Waste Processing Cross-Tie Restoration - FSAR Figure 11.3-1,
Sheets 1 & 4 are Being Revised by LDCRs SA-91-101 and SA-91-100

Description of Change(s):

Blanks were installed in two Gaseous Waste Processing System (GWPS) lines, 2-GH-2-171-152R-5 and 1-GH-2-004-152R-5. This was done during the construction of Unit 2 in order to isolate Unit 1 from Unit 2 to prevent the transmission of potentially radioactive fluid. Since the associated Unit 2 interconnecting piping is complete and Unit isolation is provided by normally closed valves 2GH-7894 and XGH-0023, the separation may be restored. This restoration will be accomplished by re-installing piping in place of the blanks currently installed.

Summary of Evaluation:

The GWPS is classified as Non-Nuclear Safety Related and is not required for safe shutdown of the plant. This activity will return the system to the configuration as described in the Design Basis Documents. There are no accidents or malfunctions of equipment important to safety described in the Licensing Basis Documents which involve structures, systems or components and/or system parameters that could be affected by implementation of this activity. Since the activity does not affect the functional separation of the system, there are no credible potential failure modes introduced by implementation of this activity. There are no Technical Specifications that apply to the Gaseous Waste Processing System that are affected by implementation of this activity.

Evaluation Number
SE-92-195

Activity Title:

TM 92-1-101; Temporary Modification to Install Temporary Air to Selected Components While in Modes 5 & 6 During 1RF02

Description of Change(s):

This temporary modification is required for the modification of the existing "Reacta-Pak" building into a new water treatment facility. Temporary Modification, TM-92-101, is being installed to supply instrument air to selected components during an instrument air outage of yard components during 1RF02. The instrument air outage is needed to install a design change to relocate instrument air yard piping and valves. The outage should occur during Mode 6, but could possibly extend to Mode 5 for CPSES Unit 1. The following areas will be without air as a result of implementing this change: Firewater Storage Tanks; Fire Pump House; Auxiliary Boiler Building; Service Water Intake Structure (SWIS); Demin. Water Storage Tank Area (DWST); Circulating Water Intake Structure (CWIS); Water Production Lab; CWIS Chlorination Building; Waste Management System; Turbine Building Annex; I & C Lab; and Water Clarifier Area.

This outage does not affect any components in the Containment, Safeguards, Auxiliary, Electrical & Control, and Turbine Buildings. This TM does not affect any Engineered Safety Features (ESF) components or radiological monitoring components required to be operable per the ODCM supplied by Instrument Air. The only Fire Protection System function affected is the storage tank fill valves from potable water. No fire suppression equipment or components are affected by this TM.

Two temporary compressors and one nitrogen bottle are required to provide replacement air to selected Station Service Water (SSW), Circulating Water (CW) and Demin. Water components. The replacement air will be dried, and oil-free air.

Summary of Evaluation:

The Instrument Air (IA) System is not a safety related system; however, it supports several safety related systems. The only system affected by a failure of the IA System is the Station Service Water (SSW) System traveling screen level control and Fire Protection System storage tank fill valves from potable water. These functions would not render the SSW System or Fire Protection System inoperable. This is a temporary change that will only be in effect in Mode 6, and possibly Mode 5, for CPSES Unit 1. The securing of yard instrument air and the installation of TM-92-1-101 does not involve any components required for nuclear safety and, therefore, does not involve an Unreviewed Safety Question.

Evaluation Number
SE-92-196

Activity Title:

CPSES Unit 1 Cycle 3 Core Configuration

Description of Change(s):

The proposed activity is refueling the core for CPSES Unit 1 Cycle 3. All 193 fuel assemblies were off-loaded to spent fuel storage. Sixty one (61) fresh Vantage 5H fuel assemblies without Intermediate Flow Mixing grids (abbreviated as V5H) and 3 once-burned Region 3 assemblies discharged at the end of Cycle 1 replaced thirteen (13) Region 1 assemblies, forty four (44) Region 2 fuel assemblies, and seven (7) Region 3 assemblies. Sixty of the V5H fuel assemblies also included axial blankets of natural uranium. These blankets make up the bottom six inches and the top six inches of the active fuel length and are used to improve the neutron economy. One fresh V5H assembly was fabricated to replace a Region 3 fuel assembly which failed during Cycle 1. This assembly does not contain natural uranium axial blankets.

The new loading configuration is a low-leakage pattern. The projected cycle length with this loading configuration is 270 effective fuel power days (EFPD) and is based on the end of the Cycle 2 burnup. The effect of control rod repositioning is accounted for in the Safety Evaluation.

Summary of Evaluation:

The plant will be operated within the limits given in the Technical Specifications. (Note: the Technical Specification requirements concerning the operability of the Boron Dilution Mitigation System will change six months following Cycle 3 criticality.) The current evaluation of the boron dilution event in Modes 3, 4, and 5 (FSAR Section 15.4.6) supports the current Technical Specifications. Additional evaluations may be required to support continued operation six months after Cycle 3 criticality.

The low leakage loading pattern for CPSES Unit 1 Cycle 3 does not introduce any credible failure modes. Successful completion of tests conducted during Cycle 3 startup prior to full power operation assure that the analytical models used to generate physics parameters for safety evaluations are valid. Thus, the validity of the Cycle 3 Reactor physics parameters, as used in the accident analyses, will be confirmed.

The mechanical design changes associated with this core reload do not affect the design basis as described in Chapter 4 of the FSAR. The fuel assemblies employing mechanical design changes are fully compatible with existing fuel, and structural integrity and seismic requirements are satisfied; hence no new credible failure modes are introduced by the new fuel assemblies. Because the replacement fuel assemblies are completely compatible with the existing fuel assemblies from a mechanical and thermal-hydraulic standpoint, no equipment, important to safety or otherwise, could be affected by the

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implementation of this activity. For each of the accident analyses presented in FSAR Chapters 3.6B, 6, and 15, as supplemented by the boron dilution re-analyses (ref. WPT-14386, February 25, 1992), a range of values of the critical Reactor physics parameters have been evaluated for impact on the event consequences. It was concluded that this activity does not adversely affect the radiological consequences of any accident presented in the FSAR and does not increase the probability of failure of the fuel assemblies.

The Cycle 3 reload core design meets all applicable design criteria and ensures that all pertinent licensing basis acceptance criteria are met. It has been determined that the Comanche Peak Unit 1 reload design and safety analysis limits remain applicable, and that these limits are supported by the applicable Unit 1 Technical Specifications for Cycle 3. Specifically, the mechanical changes involved will not reduce the margin of safety as defined in the basis for any Technical Specification. The design of these fuel assemblies takes into consideration the normal core operating conditions allowed in the Technical Specifications. For Cycle 3, these fuel assemblies have been specifically evaluated using approved reload design methods and approved fuel rod design models and methods. This evaluation includes considerations of the core physics analysis peaking factors and core average linear heat rate effects. Therefore, the margin of safety as defined in the bases for the Technical Specifications has not been reduced.

Evaluation Number
SE-92-197

Activity Title:

The Impact of Increased Service Water Temperature on the FSAR LOCA-Related Analyses (LDCR SA-92-848)

Description of Change(s):

As a result of this activity, the hot leg switchover time was revised from 16 hours to 15 hours. This change is reflected in the FSAR and Emergency Operating Procedures.

Summary of Evaluation:

The Station Service Water System (SSWS) is designed to remove heat from the Component Cooling Water System (CCWS) heat exchangers that in turn remove heat from the Residual Heat Removal System (RHRS) heat exchangers during the injection and recirculation phases following a postulated LOCA. The following FSAR LOCA-related analyses have been evaluated:

- Large Break
- Small Break
- LOCA Hydraulic Forces
- Post-LOCA Long Term Core Cooling
- Hot Leg Switchover

The increase in the service water temperature does not impact the assumptions or results of the LOCA-related analyses, with the exception of the hot leg switchover analysis.

Hot leg recirculation is initiated to prevent boron plateout in the core following a postulated LOCA. The hot leg switchover analysis is affected because the revised post-LOCA RHR temperatures changed the margin of subcooled water entering the core. The hot leg switchover time is being revised from 16 hours to 15 hours and continues to satisfy the designed safety function in the event following a postulated LOCA. The remaining LOCA-related analyses remain unaffected and demonstrate conformance with the requirements of 10CFR.50.46.

This change does not constitute an Unreviewed Safety Question. No changes to the plant Technical Specifications are required. This value will be incorporated into the FSAR (LDCR No. SA-92-848) and Emergency Operating Procedures EOP-1.0A and EOS-1.4A.

Evaluation Number
SE-92-198

Activity Title:

Clarification and Revision of Postulated Radiation Doses Presented for the Post-Accident Vital Area Access Study (LDCR SA-92-850)

Description of Change(s):

During review of the Unit 2 emergency operating procedures, the NRC requested validation of the operator action times for the tasks identified in the post-accident vital area access study. Most of the task times were found to be adequate. However, off-loading of the diesel fuel oil tanker trucks may be initiated sooner following a LOCA and may require additional time for the task. Since the task times for both Units were assumed to be the same, Unit 1 study information was revised to reflect more appropriate operator action times.

Summary of Evaluation:

Since initial delivery time may vary following a LOCA, task duration may vary based on sequence of deliveries and multiple operators may be used for one or more deliveries, the calculated radiation doses to the operators are conservative. These doses remain within 10CFR50, Appendix A, GDC-19 guidelines. In addition, the activity does not impact plant structures, systems, components or operating procedures. Therefore, an unreviewed safety question does not exist.

Evaluation Number
SE-92-199

Activity Title:

LDCR SA-92-740; Correct Seismic Requirements for Cranes

Description of Change(s):

FSAR Section 3.10B is corrected to delete a paragraph that implied electrical equipment and instrumentation that is not required to function is qualified in Seismic Equipment Qualification Summary Packages (SEQSPs). Since these items are not Seismic Category I, they are not in the scope of SEQSPs. Instead they are covered by FSAR Section 3.7B.2.8 and the Systems Interaction Program.

Summary of Evaluation:

Since there are no new failure modes introduced by this change (change affects documentation requirements only), the 50.59 questions are not applicable. The acceptance criteria and descriptions in the SER and its supplements are not affected. Therefore, it was concluded that this change is trivial and does not involve an unreviewed safety question.

Evaluation Number
SE-92-200

Activity Title:

Update Cooling Pond Thermal Analysis for Two Unit Operation
(LDCR SA-92-720)

Description of Change(s):

FSAR Sections 1A(B), 2.3, 2.4 and 9.2 are updated to reflect the results of the latest Safe Shutdown Impoundment (SSI) hydrothermal analysis. Meteorological data is updated. Evaporation for normal and accident conditions are provided. The bases for Technical Specification 3/4.7.5 were added to the FSAR. This change was part of Technical Specification validation for two Unit operation.

Summary of Evaluation:

The margin of safety which is the basis for Technical Specification 3/4.7.5, Ultimate Heat Sink, is not changed. The analysis verifies the Technical Specification acceptance limits of 102 degrees F and El. 770 feet in accordance with Reg Guide 1.27. Therefore, it was concluded that this change does not involve an Unreviewed Safety Question.

Evaluation Number
SE-92-206

Activity Title:

Revision to the Offsite Dose Calculation Manual (ODCM) in Support
of LDCR OD-92-005

Description of Change(s):

LDCR OD-92-005 updates the ODCM to: (1) add site related dose commitment factors for previously unidentified radionuclides (Sb-126, Sb-127 and La-141) to Table 1.2 so dose calculations may be performed; (2) incorporate changes found in the 1992 Land Use Census to delete a dairy location and add the new nearest resident, milk animal, garden X/Q and D/Q values on Tables 2.4 and 3.1; and (3) revise the calculational methodology used to determine dose to individuals for liquid releases by eliminating the drinking water pathway and adding the cow-meat pathway.

Summary of Evaluation:

The changes to the ODCM are acceptable and do not affect plant safety. The ODCM revision only affects the calculations of offsite doses from liquid effluent releases. No plant equipment is affected by the changes.