

Union Electric

One Ameren Plaza
1901 Chouteau Avenue
PO Box 66149
St. Louis, MO 63166-6149
314.621.3222

May 1, 2000

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20556



Gentlemen:

ULNRC-04236

**DOCKET NUMBER 50-483
UNION ELECTRIC COMPANY
CALLAWAY PLANT
FACILITY OPERATING LICENSE NPF-30
10CFR50.59 SUMMARY REPORT**

In accordance with 10CFR50.59(b)(2), this letter transmits a report which summarizes written safety evaluations of changes, tests, and experiments approved and implemented for activities at Callaway Plant from July 1, 1998 through December 31, 1999.

Very truly yours,

A handwritten signature in black ink, appearing to read "Alan C. Passwater".

Alan C. Passwater
Manager, Corporate Nuclear Services

BFH/ere
Enclosure

Handwritten initials "JEH" in black ink, located in the bottom right corner of the page.

cc: M. H. Fletcher
Professional Nuclear Consulting, Inc.
19041 Raines Drive
Derwood, MD 20855-2432

Regional Administrator
U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive
Suite 400
Arlington, TX 76011-8064

Senior Resident Inspector
Callaway Resident Office
U.S. Nuclear Regulatory Commission
8201 NRC Road
Steedman, MO 65077

Mr. Jack Donohew (2) - **OPEN BY ADDRESSEE ONLY**
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
1 White Flint, North, Mail Stop OWFN 4D3
11555 Rockville Pike
Rockville, MD 20852-2738

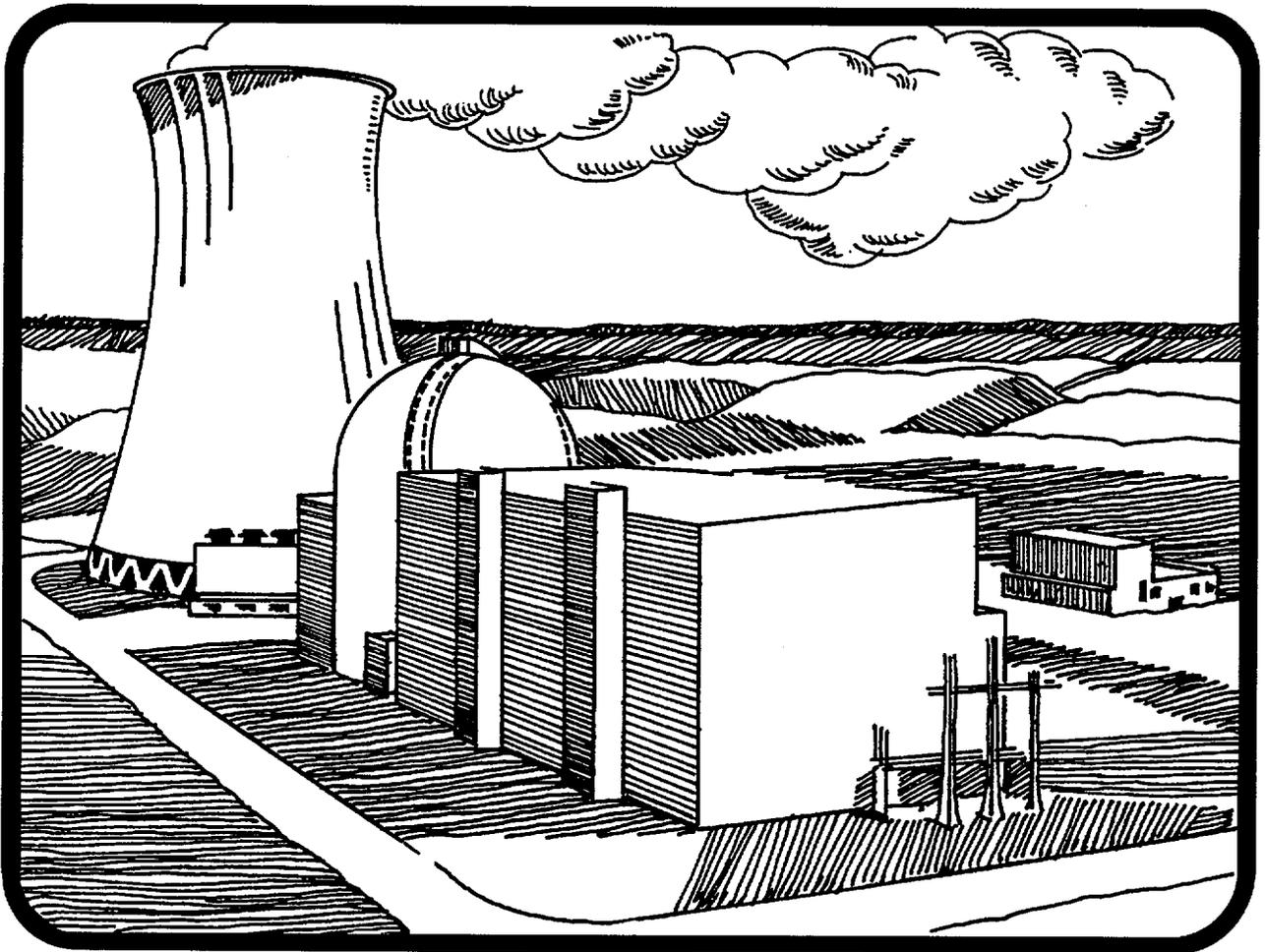
Manager, Electric Department
Missouri Public Service Commission
P.O. Box 360
Jefferson City, MO 65102



**UNION ELECTRIC COMPANY
CALLAWAY PLANT**

10CFR 50.59 SUMMARY REPORT

JULY 1998 — DECEMBER 1999



CFR 50.59 SUMMARY REPORT FOR CALLAWAY PLANT

28-Apr-00

EXECUTIVE SUMMARY

In accordance with 10CFR50.59(b)(2), the following report was prepared, which summarizes written safety evaluations of changes, tests, and experiments approved and implemented for activities at Callaway Plant.

The report covers all written safety evaluations that were implemented from July 1, 1998 through December 31, 1999.

During this period there were 219 changes, tests, and experiments implemented that required a written safety evaluation. Based on these evaluations, we have concluded:

- The probability of occurrence or consequences of an accident or malfunction of equipment important to safety previously evaluated in the Final Safety Analysis Report has not increased.
- That an accident or malfunction of equipment important to safety of a type different than those evaluated previously in the Final Safety Analysis Report has not been created.
- The margin of safety as defined in the basis for any Technical Specification is not reduced.

Therefore, all items reported herein were determined not to involve an unreviewed safety question.

CFR 50.59 SUMMARY REPORT FOR CALLAWAY PLANT

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REFERENCE/ABBREVIATION KEY

CN — FSAR Change Notice.

MODIFICATION PACKAGES (Design Changes)

- CMP — Callaway Modification Package
- RMP — Restricted Modification Package
- EMP — Exempt Modification Package

OL — Operating License Change (Tech. Spec.)

PROCEDURES

- APA — Administrative Procedures
- CTP — Chemistry Technical Procedure
- EDP — Engineering Department Procedure
- ESP — Engineering Surveillance Procedure
- ETP — Engineering Technical Procedure
- MDP — Maintenance Department Procedure
- OTO — Off-Normal Operating Procedure
- OTS — Operations Special Test

RFR — Request for Resolution

SOS — Suggestion – occurrence – solution

TM — Temporary Modification

TSI — Technical Specification Interpretation

FSAR and Technical Specification changes are also submitted under 10CFR50.71 and 10CFR50.90 as applicable.

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CN 95-053

Revised setpoints for liquid and airborne process and effluent monitors.

This change notice revised the alert and high alarm setpoints for several of the liquid and airborne process and effluent radiation monitors. The revision to the alert and high alarm setpoints did not affect the design or operation of the radiation monitoring system or any equipment important to safety that interfaces with the radiation monitoring system. The revised setpoints provided the same or better protection to the safety of the public and the plant. This change did not result in an unreviewed safety question.

CN 96-026

Incorporate Technical Specification Interpretations 49 and 75 into the FSAR.

This change notice incorporated portions of Technical Specification Interpretation 49 and 75 into the Bases of FSAR Section 16.1.2.1.2. These changes provided clarification on satisfying the requirements of this FSAR section. The change did not affect plant equipment operations or accident analysis. There was no unreviewed safety question created as a result of these changes.

Ref: RFR 16214A
RFR 15703A

CN 97-027

Revise response in FSAR SP to NRC question Q 492.12 .

This change notice revised the response to FSAR Standard Plant Volume 11 Correspondence and NRC Questions, question Q 492.12. The new response reflects a change to the methodology for calibration of the transmitters from the high voltage sensors. This method will provide a more accurate calibration over the method currently described in the FSAR. This change also removed the discussion on digital based systems and revised the discussion on testing to agree with Technical Specification 4.3.3.6-18. No unreviewed safety question was created by this change.

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CN 97-049

Feedwater system malfunction that results in a decrease in feedwater temperature

This change notice changed the accident analysis sequence of events and results presented in FSAR Section 15.1.1 for reduction in feedwater temperature event. In response to NRC Information Notice 96-41, re-analysis of the reduction in feedwater temperature event determined that the inadvertent opening of the low pressure feedwater heater bypass valve would result in a more severe feedwater temperature reduction transient than the previously assumed feedwater heater drain pump trip. In the new analysis presented in revised Section 15.1.1, the reactor is tripped on Overpower Delta T and the DNB and fuel centerline temperature design bases continue to be met. All protection systems will continue to function in a manner consistent with previous accident analysis assumptions and will continue to meet the plant design basis. Since the DNB and fuel centerline temperature design bases continue to be met, there will be no activity released or offsite dose consequences. Therefore, this change notice did not result in an unreviewed safety question.

CN 97-080

Incorporate Technical Specification 36 into FSAR Chapter 16.

This change notice incorporates Technical Specification Interpretation 36, Revision 2 into FSAR Section 16.4.5.1.2. This FSAR section lists the requirements for maintaining the structural integrity of ASME code Class 1, 2, and 3 components. The change provide testing and action requirements for Class 2 components with the Reactor Coolant System temperature greater than 200 degrees F. This change did not change the design, function, or operation of any plant equipment. No unreviewed safety question was created by this change.

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CN 97-081

Clarify FSAR description on RCS leakage detection system.

This change revised the FSAR to indicate that the Containment Humidity Monitoring System is only an indirect indication of unidentified RCS leakage and as such, periodic testing of its sensitivity is not required. It also added the Pressurizer Relief Tank Level instrumentation to the FSAR as an identified RCS leakage detection system. This change complies with all of the regulatory positions listed in Reg. Guide 1.45. The response to all of the safety evaluation questions was negative. There is no unreviewed safety question as a result of this change.

CN 97-092

Clarify the FSAR description on reactor vessel disassembly and reassembly

This FSAR CN clarifies section 9.1.4.2.3.1 that the reactor vessel stud tensioner hoists are installed and removed if necessary and the power cables associated with the stud tensioner hoists are not stored in the wall mounted storage containers. Approval was provided under RFR 5316 revision C to allow the stud tensioner hoists to remain installed on the reactor vessel seismic support platform, however under normal conditions they are removed after each refuel prior to plant startup as are the power cables. This change clarified these options.

The text changes to the FSAR clarifying that the stud tensioner hoists are installed and removed if necessary and elimination of the statement that the power cables associated with the stud tensioner hoist are stored in containment will not increase the consequences or probability of occurrence of an accident or malfunction of equipment important to safety previously evaluated in the FSAR. Nor will the possibility for an accident or malfunction of a different type than previously evaluated in the FSAR be created. In addition, this change will not reduce the margin of safety as defined in the basis for any Technical Specification. Therefore, no unreviewed safety question exists.

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CN 97-097

Incorporates Technical Specification Interpretation 74 into the FSAR.

This change notice incorporates Technical Specification Interpretation 74 into FSAR Section 16.7.2.1.1 and 16.8.1.1.1, which allows a 25% extension of the specified surveillance interval per section 16.0.2.2. The change notice clarifies that the 25% extension is also applicable to any additional scope testing that is required based on the results of the functionally testing. This change did not change the design, function, or operation of snubber or circuit breakers used at the plant. No unreviewed safety question was created by this change.

CN 98-001

Revise FSAR based on test results from surveillance capsule V.

This FSAR change notice incorporated changes into the FSAR as a result of: 1) Updates based on the examination of the third capsule removed in the continuing surveillance program which monitors the effects of neutron irradiation on the reactor vessel, and 2) Updates to reflect operation of the Normal Charging Pump in all plant Modes. The FSAR change was based on OL amendment #1191, and the supporting documentation, reviewed and approved by the NRC via Amendment 124 on April 2, 1998.

The heatup / cooldown curve revisions, PORV setpoint curve change, and the PTS evaluation are part of the normal process for updating plant documents and operating parameters based on actual surveillance capsule data. The use of the NCP has been evaluated as part of the normal change process and will serve to reduce operating time on the safety related charging pumps.

The RCS, including the reactor vessel, has been determined to not be adversely impacted, and remains capable of performing all its safety functions. An unreviewed safety question was not created by this change.

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CN 98-019

Revise Chemistry Program described in FSAR.

This Change Notice revised FSAR Sections 5.2.3 and 9.3.4.2.1.2 to make the FSAR text consistent with the current approved chemistry program. The changes did not affect the design, operation, or failure modes of any plant equipment. These changes did not adversely affect any plant system response to all assumed design basis accidents. This FSAR Change Notice did not create an unreviewed safety question.

CN 98-024

Revise FSAR section 18.3.4.2 discussion on walkdowns of systems after transient.

Change Notice 98-024 revised the discussion in FSAR Section 18.3.4.2 of the walkdown of accessible portions of the systems outside containment that could contain highly radioactive fluids during a serious transient or accident. The walkdowns are performed to help limit leakage from systems during a serious transient or accident. Revising the discussion of who performs the walkdowns did not impact the amount of leakage assumed for any event. No unreviewed safety question was created by this change.

CN 98-026

Incorporate Technical Specification Interpretation # 57, Rev. 2 into the FSAR.

This change notice incorporated Technical Specification Interpretation 57, Revision 2 into FSAR Section 16.6.1.1. The added information provides clarification and imposes more stringent requirements for the Limiting Condition for Operation and ACTIONS to take if primary containment integrity is not maintained. This change notice had no effect on plant equipment or accident analysis nor did it cause any unanalyzed event or a reduction in safety. No unreviewed safety question was created by this change.

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CN 98-054

Revise flooding level of several Auxiliary and Control Building Rooms.

This change notice revised the flood depth in several rooms in the Auxiliary building and Control building. Although the flood depth in several safety-related rooms listed in the FSAR increased, it was verified through additional reviews and walkdowns that no safety-related components were adversely affected. The revision of several flood depths listed in the FSAR did not create the potential for an unreviewed safety question, nor did it decrease the margin of safety as defined in the basis for any Technical Specification.

CN 98-055

Clarify when fuel assembly numbers are checked during reload.

This change allowed the fuel assembly ID numbers to be checked prior to reloading the reactor core, instead of during the reload. This change provided clarification to FSAR Section 15.4.7.1 that all the identification numbers are checked prior to core loading. The evaluation determined that no unreviewed safety question was created by this change.

CN 98-057

Revise the safety-related active valve listings in the FSAR.

The active valve Tables 3.9(B)-16 and 3.9(N)-11 in the FSAR were updated to reflect the actual safety-related operation of various active valves. These changes include additions and deletions of valves as well as updates to the bases for consistency with existing evaluations. The changes did not effect the operation or design of any equipment. There is no change to any margin of safety as defined in the basis for any Technical Specification. This change did not create an unreviewed safety question.

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CN 98-061

Revise FSAR Chapter 13 to reflect the current Nuclear Division organization.

This change notice revised the Nuclear Division organization described in the FSAR to reflect the recent changes made within the organization. The organizational changes involved the transfer of responsibilities and some title changes. There are no deletions of responsibilities or reductions in the level of management oversight. The changes reflected in this change notice did not create an unreviewed safety question.

CN 98-062

Revise FSAR to include results of inadvertent boron dilution event reanalysis.

This change notice revises FSAR section 15.4.6 to incorporate the conclusion from the reanalysis of the inadvertent boron dilution event. The revised analysis accounted for the operation of any of the three charging pumps, including two Centrifugal Charging Pumps (CCPs) and the Normal Charging Pump (NCP), in modes 3, 4, and 5. In addition, the analysis results and simulator data shows that reactor protection for an inadvertent boron dilution event is provided by a combination of automatic actuation of the Boron Dilution Mitigation System (BDMS) and operator action. The evaluation concluded that an unreviewed safety question did not exist.

CN 98-065

Revised FSAR commitment to NRC Generic Letter 82-12.

CN 98-065 incorporated an exception to overtime restriction guideline item "c" from NRC Generic Letter 82-12. This change will revise the FSAR to state "a break of at least eight continuous hours should be allowed during any 24 hour period" instead of the current text "a break of at least eight hours should be allowed between work periods". This change did not decrease the overall effectiveness of the plants administrative controls for preventing situations where fatigue could reduce the ability of operating personnel to keep the reactor in a safe condition. The administrative procedures for plant staff overtime restrictions will continue to prevent situations where fatigue could significantly reduce mental alertness and decision making capabilities. No unreviewed safety question exist for this change.

Ref: APA-ZZ-00905, Rev. 5

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CN 98-068

Revise FSAR text to correct discrepancies identified during GL system audit

This FSAR Change Notice resolved discrepancies identified during the SSFA audit of the Auxiliary Building HVAC (GL) system. The changes were editorial in nature to clarify the operation of the HVAC system and did not require any physical changes to the plant. No unreviewed safety question was created by these changes to the FSAR.

CN 98-071

Revise FSAR Section 9.2 to correct heat loads inconsistencies

FSAR Change Notice 98-071 revised the FSAR to bring it in compliance with design basis calculations and other FSAR sections. The changes deal with heat loads incurred during a Normal Shutdown using the Ultimate Heat Sink. These changes have been verified by analysis and did not create an unreviewed safety question.

CN 98-076

Revise FSAR Table 9.5.1-2, Fire Protection System Requirements.

This Change Notice clarified the compensatory measures for an inoperable fire sprinkler system in containment. Specifically, the change allowed Operators to monitor containment air temperature every hour in lieu of sending an hourly fire watch inside of containment. This change will make the compensatory measures for inoperable sprinkler system consistent with compensatory measures for inoperable fire detection system. This change did not result in an unreviewed safety question.

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CN 98-083

Incorporate deleted information from SQAP Section 1 into FSAR.

This change notice incorporates information that was deleted from Section 1 of the SQAP, "Supplemental Quality Assurance Program for Fire Protection." into FSAR Section Appendix 9.5-A. The added information provides clarification and assures that quality assurance controls for fire protection are adequately covered in the FSAR. The information being added to the FSAR is administrative in nature since it is relocating information that was previously located in the SQAP into Section 9.5 of the FSAR. The incorporation of this information into the FSAR had no effect on plant equipment or accident analysis, nor did it cause any unanalyzed event or a reduction in safety. No unreviewed safety question exists for this change.

Ref: SQAP CN 98-015

CN 98-091

Revise FSAR to incorporate information deleted form SQAP Section 2.

This FSAR Change Notice incorporates information that was deleted from Section 2 of the SQAP, "Supplemental Quality Assurance Program for Non- Category I Seismic Systems (II/I)" into FSAR Table 3.2-3. The added information provides clarification and assures that quality assurance controls for non-category I seismic systems (II/I) are adequately covered in the FSAR. This change is administrative in nature since it is relocating information that was previously located in the SQAP. This change did not cause any unanalyzed event or a reduction in safety. No unreviewed safety question exists.

CN 99-021

Revise FSAR description of the Rod Control Bank Insertion Monitoring Inst.

This change notice revised the FSAR description of the operation of the Control Bank Rod Insertion Monitor. The monitor provides warning of the approach to the rod insertion limit for the banks operating on the sloped portion of the rod insertion limit curve. This is acceptable due to the operation of the bank overlap counter. No unreviewed safety question exists.

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CN 99-040

Rad / Chem Organization Changes

This Change Notice changed the Rad / Chem Department organization as described in FSAR Chapter 13. This change involves a transfer of responsibilities between two supervisors within the Rad / Chem organization. This change did not revise the responsibilities being transferred. Therefore, no unreviewed safety question exists.

REF: APA-ZZ-00810, Revision 011
APA-ZZ-00811, Revision 008
APA-ZZ-00830, Revision 011
EIP-ZZ-03010, Revision 006

CMP 90-1009

Install stairs in the UHS Cooling Tower basin.

Field Change Notice # 03 added structural steel stairs to provide personnel access down into the basin of the UHS Cooling Tower. The existing arrangement of 2 ladders and an intermediate platform was removed. There was no impact on the existing design basis for the tower. The addition of the stairs poses no operability concerns, during the specified time period prior to completion of cooling tower performance tests. No unreviewed safety question existed for this modification.

CMP 92-1013

Install platforms for RHR and Containment Spray Pumps.

FCN 01 revised plant drawing M-2G020 (FSAR Figure 1.2-9) to show the location and elevation of the platforms installed by CMP 92-1013. This modification installed four platforms in rooms 1109, 1110, 1111, and 1112 in the Auxiliary Building. The platforms were installed to take vibration readings on the RHR and Containment Spray pumps. The design and installation of these platform were previously evaluated. The safety evaluation concluded that there was no adverse affect on the plant or license documents and an unreviewed safety question did not exist.

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CMP 95-1008

Elimination of the automatic control rod withdrawal function.

This modification disconnected the signal that causes the rod control system to automatically withdraw control rods. This eliminated the need to analyze the accidents whereby a main steamline break in the turbine building causes the turbine impulse pressure transmitter to fail in such a way that it generates a high T reference signal which causes an uncontrolled automatic control rod withdrawal signal coincident with the cooldown associated with the steamline break. It also reduces the consequences of some other accidents that are evaluated in the FSAR since the assumption of automatic rod control is made only to establish a worst case scenario. This modification did not create an unreviewed safety question.

CMP 96-1030

Relocate Reactor Building Elevator bottom stairs.

This modification relocated the stairs at the Reactor Building elevator bottom platform, enlarged the bottom platform, installed a diamond plate surface, and relocated a flange storage rack. There were no adverse impacts on the existing design basis of the elevator structural framing or the Reactor building structure or systems. This modification did not adversely affect the existing design or function of the structures, systems, or components important to safety. An unreviewed safety question did not exist for this change.

Ref: FSAR CN 98-078

CMP 97-1013

Relocate instrument tubing sensing lines to eliminate safety concern.

To improve personnel safety, modification 97-1013 relocated the instrument sensing line to pressure transmitter EP-PT-0966. This line interfered with access to ladder inside the reactor building. The function and operation of the instrument is not changed or impacted in any manner. All structural integrity, reliability and regulatory commitments are met. The implementation of this modification did not create an unreviewed safety question.

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CMP 97-1016

Re-rack of the spent fuel pool with high density racks.

CMP 97-1016 replaced the existing spent fuel storage racks with higher density Mixed Zone Three Region (MZTR) racks designed by Holtec International. Normal and accident conditions were evaluated to ensure that the replacement racks met applicable design requirements. The racks, pool, and building structure were acceptable for the thermal and seismic loading. The spacing of storage cells and the incorporation of Boral poison panels on the surface of each cell ensures that criticality requirements are met. Mechanical accidents were evaluated and showed that the consequences of a postulated accident would remain within acceptable limits. Installation was in accordance with the requirements delineated in the licensing change amendment request which determined that no significant hazards exist as a result of this modification.

Ref: ULNRC-3742

License Amendment 129

APA-ZZ-00405, Revision 014

ESP-ZZ-00003, Revision 006

ESP-ZZ-00005, Revision 008

CMP 97-1019

Add Emergency Borate Timer to the Main Control Board.

Modification 97-1019 added an emergency borate timer to the Main Control Board to aid the Reactor Operator in estimating the total negative reactivity added to the Reactor Coolant System (RCS) during an emergency boration operation. The new timer will simply display the elapsed time that emergency borate valve BGHV8104 is open. This elapsed time multiplied by the emergency boration flow displayed on BGFI0183A will allow the Reactor Operator to quickly estimate the total amount of borated water added to the RCS during an emergency borate operation. The new timer will perform no safety functions and did not adversely impact any equipment important to safety. No unreviewed safety question was created by this modification.

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CMP 97-1031

Replace Control Rod Group Step Counters on the Main Control Board.

This modification replaced the existing electro-mechanical control rod group step counters on the main control board with digital electronic step counters. The new step counters cannot affect the rod control system in such a way as to have any effect on rod position, so all existing safety analyses are unaffected by this modification. Also, there were no new accident or malfunction of equipment important to safety that were created by this change. This modification did not result in an unreviewed safety question.

CMP 97-1038

Installation of a new Auxiliary Building tool issue area.

This modification installed a new tool issue area in the Auxiliary Building, elevation 1974'. The tool issue area consists of heavy-duty steel shelving, cabinets and partitions. The new tool issue area and previous tool storage areas will contain tools and other supplies. Some of the tools and supplies contain combustible materials. This evaluation concluded that installation of the new tool issue area and changes to previous tool storage areas in the Auxiliary Building would not affect plant safety. Also, this change did not adversely affect the Fire Protection Program, Seismic II/I Program or Flooding Analysis. No unreviewed safety question exists as a result of these changes.

Ref: FSAR CN 97-099

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28-Apr-00

CMP 98-1010

Install vent on RHR hot leg injection piping.

This modification installed a manual vent assembly to the high point of the common Residual Heat Removal (RHR) hot leg injection piping inside the Auxiliary Building. The valve will be open manually under local operator control for Technical Specification required venting, or to support maintenance on the system.

The modified piping and new components were designed to meet existing system design requirements. The RHR system had been analyzed as acceptable considering this change. The RHR system was not adversely impacted, and remains capable of performing all its safety functions. No unreviewed safety question exists for this change.

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CMP 98-1014

Cycle 10 reload design documentation

FCN 3 of this modification package applies to the Cycle 10 reload design, and includes operation up to the Maximum Cycle 10 Burnup for Safety Analysis of 22,240 MWD/MTU listed in Section 1 of the Cycle 10 Reload Design Summary.

FCN 4 of this modification package applies to the revision of the Cycle 10 rod insertion limits and axial flux difference limits. These changes were incorporated into the Cycle 10 COLR, Revision 2.

FCN 5 restored control rod bank insertion limits and axial flux limits to the values at the beginning of cycle 10. These changes were incorporated into the Cycle 10 COLR, Revision 3 and 4.

FCN 5 incorporates additional W(Z) factors to account for a measured axial offset more positive than designed due to the AOA recovery at the end of Cycle 10. This change was incorporated into the Cycle 10 COLR, Revision 5.

The Cycle 10 reload design satisfies all of the applicable safety parameter limits and acceptance criteria, and has been evaluated using standard reload design and approved fuel rod design models and methods. This evaluation concluded that there was no unreviewed safety question as documented in the Callaway Cycle 10 Reload Safety Evaluation, Revision), other evaluations performed by Westinghouse and documented in 98SCP-G-0049, 99SCP-G-0057, 99SCP-G-0063, 99SCP-G-0071, and 99SCP-G-0072, the Callaway Reload 9 RDS, Nuclear Engineering calculations NFDC 98-007, EC-21, and Nuclear licensing and fuels calculation ZZ-448, and ZZ-449.

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CMP 98-1015

Install continuous ammonia injection panel.

This modification installed a panel to provide for continuous injection of ammonia hydroxide to the Reactor Coolant System (RCS) from the primary sampling system. All components and system interconnections are non-safety related. Use of ammonia in the RCS was previously approved and currently in use. Additions via this panel will require prior approval from the licensed operator. All current accident analysis described in the FSAR remains valid. There is no adverse impact on any safety related equipment. Therefore, an unreviewed safety question does not exist.

CMP 98-1023

Install ramp and temporary platforms inside Containment Personnel Hatch.

This modification provided a new concrete ramp on the Auxiliary Building side of the Containment Personnel Hatch (CPH), temporary platform sections for use inside the CPH, and other equipment necessary to enhance personnel safety and efficiency when performing material movement activities during maintenance and outage evolutions. The installation of the concrete ramp and the use and storage of the temporary platforms will not affect plant safety. This change will not adversely affect the Fire Protection Program, Seismic Program or any other plant program. No unreviewed safety question exists as a result of this change..

CMP 98-1028

Increase Instrument Tunnel Sump Level Transmitter

This modification installed a new level transmitter with an increased range in the Containment Instrument Tunnel Sump. The increased range will allow sump level indication much closer to the bottom of the sump and therefore provide earlier detection of an Reactor Coolant System (RCS) leak into the Instrument Tunnel Sump. This change was required to satisfy existing Callaway Plant FSAR commitments to met Regulatory Guide 1.45 requirements and Improved Technical Specification Bases 3.4.15 for RCS leak detection systems. This change did not create an unreviewed safety question.

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CMP 98-1039

Reduce RCS average temperature by 4 degrees.

This plant modification reduced Reactor Coolant System (RCS) average temperature (Tavg) by 4 degrees F for the remainder of Cycle 10. Tests have been performed to determine the measurable effects of reducing core average temperature on the axial offset anomaly and to observe effects on plant instrumentation. Additionally, the main feedwater temperature was reduced to as low as 390 degrees F. Results of evaluations performed to support the testing and the plant modification showed that no unreviewed safety question exists.

FCN01 allowed the adjustment in the feedwater flow loops so that control board indications of feed flow were normalized to the new lower full power feedwater temperature. Since this change had no adverse impact on safety related equipment, Technical Specifications, or the description in the FSAR, this additional change did not introduce an unreviewed safety question and did not change the conclusions from the original safety evaluation.

Ref: OTS-ZZ-00008, Revision 0

CMP 99-1007

Cycle 11 Core Reload Design.

Revision A applied to the Cycle 11 reload design, and includes operation up to a cycle burnup of 22450 MWD/MTU. The Cycle 11 reload design satisfies all of the applicable safety parameter limits and acceptance criteria, and has been evaluated using standard reload design and approved fuel rod design models and methods. This evaluation concluded that there was no unreviewed safety question as documented in the Callaway Cycle 11 Reload Safety Evaluation, Revision 0, other evaluations performed by Westinghouse, the Callaway Reload 10 RDS, Nuclear Engineering calculations NFDC 99-011, ZZ-482, and EC-24.

Ref: FSAR CN 99-054

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CMP 99-1026

Add a branch connection over the leak on EF-036-HBC-8".

The modification installed a 1" branch connection at the existing leak on the downstream weld of the second 90 degree elbow of line EF-036-HBC-8". The branch connection meets the requirements of ASME III Class 3. The connection to the run pipe will be a 1" nipolet. A 1" isolation valve will be welded to the nipolet, followed by a short 1" schedule 80 nipple and a NPT pipe cap.

Since this design meets the original design codes for the system, the probability or consequences of a malfunction of equipment important to safety are not altered by this change. Additionally, this code pressure boundary did not impede the system ability to meet Technical Specification requirements for operability and therefore not affect the margin of safety. This modification did not create an unreviewed safety question.

EMP 97-3002

Install 2 platforms in the Turbine Building under the Main Generator.

This modification installed two platforms in the Turbine Building to provide access to the main generator bushings and links. The platforms are in a non-safety related, non-seismic category 1 structure. The platforms were design on OSHA requirements and in accordance with the requirements of AISC, ninth edition. The installation of the platforms did not affect any safety related equipment and there was no adverse effect on the plant or licensing documents. This modification did not result in an unreviewed safety question.

RMP 95-2009

Install jib crane in each of the Waste Gas Compressor Room.

Modification 95-2009 added a small capacity manual jib cranes in each of the two waste gas compressor rooms of the Radwaste Building. The jib cranes are utilized to perform maintenance changeouts of compressors or motors. There was no impact on the existing design basis of the building or compressor skids. The addition of the jib cranes posed no plant operability concerns and no unreviewed safety question was created.

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28-Apr-00

RMP 95-2020

Relocate Condenser Exhaust Rad. Monitor sample nozzle upstream of damper.

Modification 95-2002 relocated the sample nozzle of condenser offgas radiation monitor upstream of a dilution damper in the Turbine Building HVAC ductwork. Installing the sample nozzle in this new location will increase the sensitivity of the monitor to detect primary-to-secondary leakage. This modification also installed new backpressure control valves on the condenser vacuum pump skids downstream of the local flow indicators. The backpressure control valve will stabilize the flow indication to allow more accurate condenser offgas flow readings. These minor changes to non-safety related systems and components did not have a detrimental impact on safety. No unreviewed safety question exists for this change.

RMP 97-2014

Remodel empty space in a piping chase on 2047' elev. of Communication Corridor

This modification added two single occupant rest rooms, a vending machine, and hallway door to the Communications Corridor Building 2047' elevation. Modification 97-2014 was created to make better use of empty space in a piping and ductwork chase. These architectural changes did not adversely affect the existing design or function of the structures, systems, or components important to safety. The modification posed no operability concerns and an unreviewed safety question did not exist.

RMP 98-2015

Install an isolation valve on the instrument air supply to the MFRVs.

RMP 98-2015 installed an isolation valve on the Instrument Air supply to the Main Feedwater Regulating Valves (MFRVs). This change was needed because the MFRVs are stroke time tested using the backup nitrogen supply and closing the Instrument Air Supply also isolates one-third of the Turbine Building. All affected system and components are non-safety related and do not interface with any safety related components. This change did not create an unreviewed safety question.

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RMP 99-2014

Add vents and drains to various portions of the Stator Cooling Water System.

This modification added vents and drain valves to the stator cooling water system where vent/drain plugs currently exist. This requires a change to drawing M-22CE01, which is reproduced as Figure 10.2-1 of the FSAR. Consequently, this involves a change to the plant as described in the FSAR. However, this did not affect any safety related equipment, nor have an impact on the probability or consequences of any accident scenario. This change did not create an unreviewed safety question.

OL-1180

Electrosleeving S/G Tubes (Framatome)

This amendment revised Technical Specification (TS) 4.4-3" and the associated Bases as appropriate, to allow the repair of the Callaway Plant steam generators tubes with the Electrosleeves repair method.. Electrosleeving is the structural repair of a degraded tube by electrodeposition of ultra-fine-grained high purity nickel on the inner surface of a tube. The final amendment included a two cycle operating limit that requires all steam generator tubes repaired with electrosleeves to be removed from service at the end of two operating cycles following installation of the first Electrosleeve. This two cycle limit can be removed by an amendment request after completion of qualification of the inservice inspection NDE technique.

NRC approved this change via Amendment 132, dated May 21, 1999.

OL-1186

Revise main steam line safety valves setpoint setting tolerance.

This amendment request revised Technical Specification Table 3.7-2 to specify that the lift setting tolerance for the main steam line safety valves is +3/-1 percent as-found and +/-1 percent as-left. The request also revised Technical Specification Table 2.2-1 to reduce the sensor error for the pressure-high trip. These changes were approved by NRC via Amendment 128 on October 2, 1998.

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OL-1192

Revise ESFAS Functional Unit 6.f Loss of Offsite Power-start Turbine Driven Pump

This amendment request revised the Technical Specification Tables 3.3-3, 3.3-4, and 4.3-2 requirements regarding the engineered safety features actuation system(ESFAS) Functional Unit 6.f, "Loss of Offsite Power - Start Turbine-Driven Pump," by establishing separate requirements for the analog and digital portions of the associated circuit. NRC approved these changes via Amendment 130, dated April 2, 1999.

OL-1193

Clarify ESFAS Functional Units 8.a and 8.b time delay relay testing requirements

This amendment added a note to Technical Specification Table 4.3-2 to clarify that the verification of time delays associated with Engineered Safety Features Actuation System (ESFAS) Functional Units 8.a and 8.b, "Loss of Power," is only performed as part of the channel calibration. These changes were approved by NRC via Amendment 130 on April 2, 1999.

OL-1195

Eliminate requirement to vent centrifugal charging pump casings.

This amendment request revised Technical Specification section 4.5.2b.1 and its associated Bases to eliminate the requirement to vent the Centrifugal Charging Pump (CCP) casing. This change was requested since the CCP casings do not require venting and do not have installed casing vents. This change was approved by the NRC via Amendment 127 on August 17, 1998

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OL-1196

Increase spent fuel pool storage capacity.

This amendment revised the Technical Specifications to allow an increase in the Callaway Plant spent fuel pool storage capacity from 1344 to 2363 fuel assemblies. The amendment also revised the Technical Specifications to allow storage of an additional 279 fuel assemblies in the cask loading pit. This change allowed the removal of the existing fuel storage racks from the spent fuel storage pool (SFP) and the installation of new high density racks in the SFP and cask loading pit. This change allows continued operation of the plant without loss of full-core-discharge capability until the end of fuel cycle 24.

These changes were approved by NRC via Amendment 129 on January 19, 1999.

OL-1197

Revise the required number of operable SG atmospheric steam dump valves

This change revised Technical Specification 3.7.1.7 to (1) require four operable atmospheric steam dump (ASD) valves instead of three, (2) revise operability requirements to include the ASD manual isolation valves, (3) revise and incorporate action statements for multiple inoperable ASD lines, and (4) add surveillance requirements for the ASD manual isolation valves. This change made the Technical Specifications consistent with the plants licensing basis. NRC approved these changes via Amendment 131, dated April 20, 1999.

APA-ZZ-00703

Fire Protection Operability Criteria and Surveillance Requirement.

Revision 11 to the procedure clarifies the compensatory measures for an inoperable fire sprinkler system in containment. Specifically, the change allows Operations to monitor containment air temperature every hour in lieu of sending an hourly fire watch inside containment. The change in compensatory measures did not adversely affect safe shutdown of the plant. The conclusions of the FSAR Fire Hazard Analysis was not changed. The procedure change did not result in an unreviewed safety question.

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CTP-AQ-ST001

Ammonium Hydroxide Chemical Addition Restoration

This Procedure covered the use of ammonia for Secondary System pH control. The Secondary System pH control was initially maintained by ammonia. However, due to flow accelerated corrosion in the upper cycle, the pH control was switched to ethanolamine (ETA) in 1993. Recently, the plant has experienced a higher than expected rate of anion resin kinetic degradation. In order to identify the source of the problem, the pH control had to be switched back to ammonia to eliminate the high background total organic carbon that comes from ETA break down products. The evaluation concluded that switching back to ammonia for pH control did not create an unreviewed safety question.

EDP-ZZ-00007

Refueling Startup Test Program.

Technical Specification Special Test Exception 4.10.3.2 requires surveillance of the Intermediate and Power Range channels within 12 hours prior to starting physics testing. As a result of the use of a new reactivity computer, the start of physics testing is now declared when the reactivity computer gamma compensation adjustment is made. This adjustment is a necessary part of physics testing which is not associated with any other normal operational activity. Previously physics testing was declared at Mode 2. The safety evaluation for procedure revision 23 associated with the declaration of physics testing concluded that the change did not result in an unreviewed safety question.

ESP-ZZ-01016

ASME Section XI, IWE Containment Pressure Boundary Inspection

An evaluation was performed on the use of procedure ESP-ZZ-01016, Revision 0, to perform ASME Section XI, IWE inservice inspections on the Reactor Building Pressure Boundary. The proposed pressure boundary inspection was found to be passive in nature and as such would not alter the function or design basis for the pressure boundary. An unreviewed safety question did not exist.

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ETP-BB-01340

Steam Generator Manway Flange Surface Repair.

This procedure incorporated Framatome Technologies procedure 50-5000805-00 into Callaway procedure system for use during Refuel 10. This procedure provides the instruction for Steam Generator (SG) manway flange surface repair. The Framatome Technologies document govern the methods and sequence of events for the machining required to repair a damaged SG closure flange. The performance of this procedure would not adversely affect the steam generator pressure boundary or the safety design basis of the plant. No unreviewed safety question was created by this procedure.

ETP-EF-ST018

ESW Train A Vibration Levels Under Varying system Alignments.

The purpose of this procedure is to collect system pressure, flow, and vibration data with the Essential Service Water System (ESW) train A in operation under various system alignments. This data is being collected for determining the long term resolution to the ESW system piping vibration issue documented in SOS 98-3967. The train of ESW in test was declared inoperable when appropriate until testing was completed at which point the system was returned operable. Provisions were made in the test procedure to ensure equipment damage did not occur during the testing. Performance of this procedure did not result in an unreviewed safety question.

ETP-EF-ST019

ESW Train B Vibration Levels Under Varying system Alignments.

The purpose of this procedure is to collect system pressure, flow, and vibration data with the Essential Service Water System (ESW) train B in operation under various system alignments. This data is being collected for determining the long term resolution to the ESW system piping vibration issue documented in SOS 98-3967. The train of ESW in test was declared inoperable when appropriate until testing was completed at which point the system was returned operable. Provisions were made in the test procedure to ensure equipment damage did not occur during the testing. Performance of this procedure did not result in an unreviewed safety question.

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ETP-SE-ST003

Pre-Critical Alignment and Hookup of Advanced Digital Reactivity Computer.

ETP-SE-ST003 was a new procedure used to govern installation and operation of an Advanced Digital Reactivity Computer (ADRC) to be used during low power physics testing. The ADRC required input from on e power range nuclear instrumentation channel, which renders that channel inoperable. The Technical Specification requirements for an inoperable channel was satisfied. The stepping speed for the control and shutdown banks was also increased to facilitate data acquisition during rod worth testing. Maximum stepping speeds required by the FSAR will be maintained. This evaluation concluded no unreviewed safety question exists as a result of this new procedure.

ETP-SK-00004

Site Acceptance Test NSMART Computer System.

This review covers the Site Acceptance Test for the NSSC Security Computer System. This test will only affect components in the plant security system (SK). Since the SK system does not affect any safety related systems or components, there is no increase in the possibility or magnitude of an accident or malfunction. No unreviewed safety question was created by this test.

ETP-ZZ-04008

Temporary Power Inside Containment.

This procedure controls the installation and removal of temporary power inside the Containment Building during maintenance outages. This temporary equipment was evaluated and is controlled as transient combustible material that can be left in-service and unattended while the Containment Building is occupied. The evaluation concluded that an unreviewed safety question did not exist.

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ETP-ZZ-ST010

Low Power Physics Test Program with Dynamic Rod Worth Measurement.

ETP-ZZ-ST010 was a new procedure used to perform the sequence of operations and tests which, along with the approach to criticality, constitutes the Low Power Physics Testing Program using the Dynamic Rod Worth Measurement (DRWM) process. DRWM is used in lieu of the rod swap method to measure bank worths. The use of DRWM was previously approved by the NRC as documented in WCAP-13360-P-A. The evaluation concluded that no unreviewed safety question exists as a result of this new procedure.

ETP-ZZ-ST020

Temperature Effects on Axial Offset Anomaly Test.

Revision 0 to ETP-ZZ-ST020 provides instruction for conducting a test to determine the measurable effects of reducing core average temperature on the axial offset anomaly and to observe effects on plant instrumentation in preparation for long-term operation at reduced temperature. In addition the feedwater temperature was reduced to 390 degrees during this test.

Revision 1 changed the desired T_{avg} reduction to 5 degrees F and lowers the minimum allowable feedwater temperature to 390 degrees F. The target feedwater temperature was 395 degrees F, and the termination criterion was changed to 392 degrees F. The parameter for controlling thermal power was changed from delta T to calorimetric power because it is more accurate. A termination criterion was added to terminate the test if any delta T indication exceeded 103%.

This procedure was evaluated by Westinghouse and Callaway personnel to its effect on nuclear safety. This evaluation concluded that there was no unreviewed safety question related to performance of this test.

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MDP-ZZ-MH004

Control of Heavy Loads and Special Lifting Devices.

Revision 16 to this procedure added additional heavy loads exclusion areas in Modes 5 and 6 with only one train of RHR operable.

Revision 17 to procedure MDP-ZZ-MH-004 was created to make use of heavy loads exclusion areas and supply/injection piping re-alignment contingencies to maintain decay heat removal capability, in Modes 5 and 6 with only one train of RHR operable.

The Bechtel response to NUREG-0612 did not address the plant conditions allowed by Technical Specifications whereby only one train of RHR is required operable when in mode 5 with loops filled or when in Mode 6 with greater than 23 feet of water above the reactor vessel flange. Instead, Bechtel response to Phase II of the NUREG stated that two trains of RHR would be operable during Cold Shutdown and Refueling, such that one train would always be operable in the event of a dropped heavy load.

Provision of safe load paths to protect a single operable train of RHR meets the requirements of NUREG-0612 and does not create an unreviewed safety question. The same measure of protection is provided as that described in the latest heavy loads response for dual/redundant train operability, which assumes the loss of one RHR train following a dropped heavy load in Containment. For cases where safe load paths or physical separation provide protection to ensure safe shutdown or decay heat removal functions are maintained, alternate load drop analyses are not required. This procedure change merely supports the NUREG-0612 philosophy for protecting safe shutdown and decay heat removal equipment for those cases not described in the SNUPPS REPORT ON THE CONTROL OF HEAVY LOADS when only one train of RHR is required to be operable.

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28-Apr-00

OTO-BB-00002

Reactor Coolant Pump Off-Normal Procedure vibration limit.

Revision 14 to procedure OTO-BB-00002 increased the frame vibration trip setpoint for the "D" Reactor Coolant Pump, only during the plant shutdown for Refuel outage 10. The vibration anomaly that has been seen may pose a commercial concern but not a safety related concern. Higher vibration may lead to decreased bearing life overall, but does not affect the ability of safety related systems to provide their function. Plant response to all assumed design basis accidents is unaffected and no new accident or malfunction of equipment was created. This procedure change did not result in an unreviewed safety question.

OTO-EJ-00002

Control of Heavy Loads and Special Lifting Devices.

Procedure OTO-EJ-00002 Revision 0 was created to make use of heavy loads exclusion areas and supply/injection piping re-alignment contingencies to maintain decay heat removal capability, in Modes 5 and 6 with only one train of RHR operable.

The Bechtel response to NUREG-0612 did not address the plant conditions allowed by Technical Specifications whereby only one train of RHR is required operable when in mode 5 with loops filled or when in Mode 6 with greater than 23 feet of water above the reactor vessel flange. Instead, Bechtel response to Phase II of the NUREG stated that two trains of RHR would be operable during Cold Shutdown and Refueling, such that one train would always be operable in the event of a dropped heavy load.

Provision of safe load paths to protect a single operable train of RHR meets the requirements of NUREG-0612 and does not create an unreviewed safety question. The same measure of protection is provided as that described in the latest heavy loads response for dual/redundant train operability, which assumes the loss of one RHR train following a dropped heavy load in Containment. For cases where safe load paths or physical separation provide protection to ensure safe shutdown or decay heat removal functions are maintained, alternate load drop analyses are not required. This procedure change merely supports the NUREG-0612 philosophy for protecting safe shutdown and decay heat removal equipment for those cases not described in the SNUPPS REPORT ON THE CONTROL OF HEAVY LOADS when only one train of RHR is required to be operable.

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OTO-ZZ-00001

Control Room Inaccessibility.

Revision 16 made changes to this procedure in response to SOS 98-3190. Actions were added to the procedure to replace blown fuses in circuits which did not have redundant fuses. The step to run the Control Room AC Unit was deleted from the procedure because operation of the unit is not necessary

Revision 17 made minor changes to the procedure. Steps were added to state this procedure is described within the FSAR. Attachment 11 of the procedure was clarified to directly reference EIP-ZZ-00201, Notifications. A step was added to have the operator verify the MDAFP suction valve is open prior to starting the pump.

The changes made will increase the efficiency of the Control Room Evacuation Procedure and will not adversely affect safe shutdown of the plant. This change did not result in an unreviewed safety question.

OTS-BG-00008

CVCS 'B' Mixed Bed Line Flush

OTS-BG-00008 flushes the 'B' CVCS Mixed Bed line through BGV0023 to the primary spent resin storage tank by diverting a portion of normal letdown flow through the line. Letdown flow will be maintained at a maximum of 120 gpm and will not be increased or isolated during the procedure. There is no change to the current accident analysis in the FSAR and there is no change to the method by which any safety related plant system operates or performs its safety function. No unreviewed safety question exists.

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RERP CN 99-001

Nuclear Division organizational changes.

This evaluation is for Organizational changes and Title changes in RERP CN 99-001; FSAR CN 99-023; and OQAM CN 99-005 as follows:

- 1) Change in the title of the Superintendent, Emergency Preparedness to Superintendent, Protective Services.
- 2) Change in reporting of the Supervisor, Safety from Superintendent, Work Control to the Superintendent, Protective Services.
- 3) Change in the title of the General Supervisor, I&C, to Superintendent, I&C.
- 4) Deletion of the Manager AmerenERC's resume from the FSAR, since the position no longer provides technical support for operation, with the organizational change of Emergency Preparedness now reporting to Manager, Operations Support, via Superintendent, Protective Services.

These Organizational Changes and Title Changes did not involve any equipment, increase the possibility or probability of any accident, or create any new type of unanalyzed event. There was no unreviewed safety question created by these changes.

Ref: FSAR CN 99-023
OQAM CN 99-005

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RFR 02135

Evaluate use of building outside of power block for paint shop.

This RFR approved the use of the structure just plant south of the ESW pumphouse as a paint shop. The building is used to store painting tools and equipment. Flammable materials are stored in flammable liquid storage cabinets within the building. At times, paint and other related combustible material are staged in the building prior and during some work activities. This building is not safety related and does not contain any safety related equipment. A fire in the paint shop would not adversely affect the UHS Pond or any equipment in the ESW Pumphouse. There were no credible failure modes associated with this change. No unreviewed safety question was created by this change.

RFR 04257

Evaluate operability requirements for vital DC systems during outages.

Revision B to this RFR changed the disposition and formal safety evaluation as stated in Revision A to the RFR. The change is to remove the need to have the second DC and inverter systems connected to their respective battery. This safety evaluation provided the additional evaluation for supporting the electrical distribution system second train's operability.

Technical Specification requires only one train of vital AC and DC to be fully operable in modes 5 and 6. As a minimum, the second train's requirement is to be energized, as a support function, to provide for the continued operability of systems in which both trains are required to be operable such as source range instrumentation, Control Room HVAC, RHR, etc. As a conservative internal requirement, it was desired to have the second train's inverter connected to the battery to provide continuity of the power in the event of a loss of off-site power. However, this is no longer desired, given the full analysis of the risk and the level of system operation required. No requirement exists to have the second train battery connected to provide power to the vital AC system or DC system given a loss of power or a single failure.

Based on the review provided, no unreviewed safety question exists.

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RFR 04272

Evaluate equipment operability in south electrical pen room with NB02 outage.

Revision E to this RFR evaluated the operability of the equipment in the south electrical penetration room cooler (SGL15B) and "B" train CCW pump room cooler (SGL11B) are out of service due to an NB02 outage with the plant in Mode 6. These units utilize essential service water as the heat sink and are powered by Class 1E power supply. The evaluation concluded that this activity would not cause the equipment inside the room to be operated outside the Technical Specification temperature limit of $106 + 25$ or 131 degrees F. Calculation GL-14 shows the room would reach a maximum of 131 degrees F under LOCA conditions, conditions that are not approached in Mode 6. This activity did not create an unreviewed safety question.

RFR 04992

Correct instrument numbers in FSAR Table 7.5-5

RFR 04992 corrected the component identification numbers in Table 7.5-5 of the FSAR for the NK battery ammeter potentiometers. This change was a documentation revision only to ensure that the FSAR accurately reflect the plant design. There were no physical or functional changes to any plant equipment as a result of this change, and no accident analyses were affected. This change did not result in an unreviewed safety question.

Ref: FSAR CN 99-037

RFR 08492

Fire Protection evaluation of RCP motor remote oil addition lines.

Revision B to this RFR documents the Fire Protection review of the installed remote oil addition lines to the upper and lower bearings of the Reactor Coolant Pump Motor. Westinghouse added these remote oil addition lines during refurbishment of the motors. This change would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire. Therefore, no unreviewed safety question was created by this change.

Ref: FSAR CN 98-052

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RFR 08653

Interim Outside Storage of Hazardous Radioactive Waste.

Revision L to this RFR provided an update to incorporate the current requirements for interim outside storage of mixed waste (radioactive and hazardous waste) at Callaway Plant. RFR 8653, Revision G allowed outside storage of mixed waste within the fenced area adjacent to the plant southwest side of the radwaste building. Outside storage of mixed waste as described by revision L to this RFR was evaluated and it was determined that no unreviewed safety question exists.

RFR 13528

Storage of small hydrogen cylinders in the Aux. Building Chemistry Sampling room

Revision P approved the storage of a size 'G' hydrogen cylinder in the Auxiliary Building Chemistry Sampling Room. The hydrogen is used for calibration of a hydrogen analyzer. This room does not contain any equipment required for safe shutdown of the plant. With this change the total combustible loading for the room remains low and there are no seismic concerns. This change did not create an unreviewed safety question.

Ref: FSAR CN 98-052

RFR 15703

Determine if an operable emergency power source is required to meet FSAR 16.1.2

Revision C to this RFR evaluated the requirements for having an operable emergency power supply for the boration flow paths in Mode 1 through 3 as defined in FSAR 16.1.2.2. This RFR concluded that there is no requirement for an emergency power source for Modes 1, 2, and 3. This conclusion is based on the wording of the LCO and guidance from the NRC. There was no change to the method by which any safety related plant system operates or performs its safety function. No unreviewed safety question exists for this evaluation.

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RFR 15742

Evaluate operability of ESW system after installation of access stairs.

This RFR evaluated Essential Service Water (ESW) system operability after installation of access stairs in the UHS cooling tower but prior to the completion of the formal thermal performance retest. The evaluation concluded that the system is operable during this time period and no nuclear safety concerns exist with this system retest methodology. This change did not create an unreviewed safety question.

RFR 15921

Delete spectacle flange on line EF-031-HBC-30"

Revision B approved the removal of the externally mounted blind flange from the spectacle flange installed on the essential service water supply pipe EF-031-HBC-30". The blind flange was no longer required for use at the plant and its removal facilitates access for maintenance on adjacent equipment. The spacer section of the spectacle flange is currently installed during normal plant operation and will continue to be installed during normal operations. This RFR did not approve any change to material or plant operation and an unreviewed safety question did not exist.

RFR 15973

Evaluate Framatome Technologies Steam Generator tube stabilizer.

This RFR approved the use of the Framatome Technologies Stabilizer in all steam generator locations. The cable stabilizer is qualified for potential tube severs at or below the first tube support plate. The evaluation concluded that the installation of a cable stabilizer attached to a rolled plug in the steam generator satisfies all parts of the 10CFR50.59 safety evaluation and the use of the cable stabilizer did not create an unreviewed safety question.

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RFR 16812

Permanent storage of additional ladders in the Auxiliary Building.

Revision C to this RFR approved the permanent storage of additional ladders in the Auxiliary Building to provide more efficient use of the ladders and improve personnel safety. Permanent storage of the additional ladders did not affect any safety related systems or components. These changes did not adversely affect the Fire Protection Program, Seismic II/I Program, or any other plant program. No unreviewed safety question exists as a result of these changes.

RFR 16916

Review of the CEFHAP methodology and conclusions with respect to FSAR.

Revision L to this RFR documented the results of Action Plan 89-301 section 2G review. This action plan performed a design basis review of the Combustible / Electrical Fire Hazards Analysis Program (CEFHAP) methodology and conclusions with respect to the applicable FSAR Appendix 9.5 B safe shutdown capability section. This action plan review resulted in revision to FSAR Appendix 9.5B safe shutdown capability section for fire areas A-5, A-17, A-27, C-7, C-8, C-10, and revision to the FSAR (SA) ESW and UHS list of safe shutdown equipment. Also included in this action plan review was resolution of 1) RFR 18137C which revised fire areas F-1, F-2, and F-3 FSAR Appendix 9.5b safe shutdown capability section, and 2) RFR 19375A which revised FSAR Appendix 9.5B Tables 9.5B-3 and 9.5B-4. The formal safety evaluation for this FSAR Change Notice determined that no unreviewed safety question exists for these FSAR text changes.

Ref: FSAR CN 99-027

RFR 17296

Permanent storage of ladders and storage box outside ESW pumphouse.

Revision C to the RFR approved the storage of ladders inside a steel box along the plant east side of the ESW pumphouse vestibule. Permanent storage of the ladders and associated storage box outside of the ESW pumphouse did not affect plant safety. This change did not adversely affect the Fire Protection Program, Seismic II/I Program, or any other plant program. No unreviewed safety question exists as a result of this change.

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28-Apr-00

RFR 17311

Install 1" hose connection at valves AQV0915 and AQV0964.

RFR 17311 authorized installation of a 1" male hose quick connect on the hydrazine and amine bulk storage skids as well as an as-built drawing change to drawing M-22AQ01. The as-built drawing change will identify associated piping as 3/4" vs. 3/8". The latter change was made for drawing accuracy while the former will add personnel safety when obtaining chemicals. These changes did not affect systems, structures or components important to safety, the probability and/or consequences of a malfunction of equipment important to safety is not altered by this change. This modification did not result in an unreviewed safety question.

RFR 17658

Revise Drawings to show opening air pressure feedwater valve bypass valves.

Revision B to this RFR authorized an as-built drawing revision to lower from 40 to 25 psig the required opening air pressure for the Main Feedwater Valve Bypass Valves. This change ensures adequate stroke of the valve employing upgraded trim installed under revision A of this RFR.

This evaluation determined this activity did not increase the consequence nor the probability of occurrence of an accident or malfunction of equipment important to safety previously evaluated in the FSAR, nor create the possibility for an accident or malfunction of a different type than previously evaluated in the FSAR. In addition, this evaluation determined the modification did not reduce the margin of safety as defined in the basis for any Technical Specification. No unreviewed safety question was created by these drawing changes.

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28-Apr-00

RFR 17800

Update minimum allowable accumulator temperature.

This RFR lowered the minimum allowable accumulator normal operating temperature from 60 degrees F to a value of 50 degrees F. This change provides consistency with the containment minimum operating temperature, which is currently listed as 50 degrees F. The revised temperature was evaluated for its impact on the accumulator tanks, their discharge piping and supports, and the plant safety analysis. These evaluations found this temperature change to be acceptable and no unreviewed safety question exists.

RFR 18382

Retire chlorine analyzer in the Potable Water System.

This RFR revised the Potable Water System P&ID and system description to show that the residual chlorine analyzer is not used. The chlorine levels in the Potable Water System are being measured by taking local grab samples. The potable water system is non-safety and has no Technical Specifications Associated with it. The evaluation concluded that the use of local grab sampling was adequate and no unreviewed safety question exists.

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RFR 18401

Evaluate adequacy of incore / excore calibration.

Revision B changed the method to perform the calibration for the AFD meters, recorder, and plant computer back to the methodology used prior to revision A of this RFR, and accounts for the bias by administratively adjusting the RAOC limits. Administrative limits were imposed on AFD which are more restrictive than those in the COLR. These limits compensate for restoring the scaling of the incore / excore calibration to the original scaling. Since the $f(\Delta I)$ function of the OTDT trip was not changed and the AFD remained within the limits assumed in the FSAR, no unreviewed safety question was created by this change.

Revision C to this RFR allowed adjustments to the RAOC limits when required by an incore-excore calibration be based on realistic power distributions. The gain for the $f(\Delta I)$ function of the OTDT trip may now be calculated explicitly instead of using a bounding value. The safety evaluation concluded that this change would not have an adverse impact on nuclear safety and no unreviewed safety question exists.

Ref: ESP-ZZ-00006, Rev. 020

RFR 18540

Evaluate hose storage in Auxiliary Building Room 1405.

Revision B to this RFR allowed the storage of rubber hoses in the Auxiliary Building 2026' elevation, Room 1405. The hoses are used by Operations during outages and normal operations for surveillances and routine operation activities. The addition of the hoses to Room 1405 did not change the failure modes of the safety related equipment in the area. A fire event was previously evaluated for this area in the FSAR Fire Hazards Analysis. The analysis determined that a fire in this area would not affect safe shutdown of the plant. This change did not create an unreviewed safety question.

Ref: FSAR CN 98-052

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28-Apr-00

RFR 18603

Evaluate additional Containment laydown loads needed for Refuel 10.

This RFR provided for additional laydown locations for Reactor Coolant Pump cover slabs on the 2068' - 8" elevation of the Containment Building. A review of the existing design basis calculations for this area of the support steel showed that the new laydown loads were within the range of the existing design basis allowed loads. This safety evaluation was performed because the design drawings are being updated to reflect the new laydown location and these drawings are included in the FSAR. This change did not affect any safety related system or component. Therefore, this change did not create an unreviewed safety question.

RFR 18668

Evaluate temporary insulation removal during specific plant operating modes.

Revision C to this RFR provided acceptance criteria for the temporary removal of insulation from piping, systems or components during Modes 1 through 4 of plant operation, to support work activities. The criteria established for the temporary removal of insulation during plant operation, ensures equipment qualification is maintained.

Revision G to this RFR provided acceptance criteria for the temporary removal of insulation from various in-service piping systems during specific plant operating modes to support plant work activities. The criteria was established to maintain the room and equipment temperatures within current design ranges.

The insulation removal criteria did not result in a decrease in the margin of safety as defined in the basis for any Technical Specification. No unreviewed safety question exists for this change.

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RFR 18737

Control Room Temperature Discrepancies

This RFR evaluated a discrepancy between the FSAR and Callaway Plant Procedures on the temperature limits for the main control room. As a result, the FSAR was revised to reflect actual control room HVAC design and operating temperatures. This revision to the FSAR did not constitute an unreviewed safety question since the operating temperatures remain within the existing design basis temperature band assumed in Calculation GK-386 and less than the 84 degree F limit stated in FSAR section 16.7.4.

Ref: FSAR CN 98-053

RFR 18764

Evaluate FSAR Turbine Building Flooding Analysis.

This evaluation addressed the sizing of the Turbine Building Condenser pit and controls in place to adequately contain the flood water from a Circulating Water Pipe expansion joint break as discussed in FSAR section 3B.4.3. The evaluation determined that provisions are adequate to contain, or control, the water and prevent the flood water from entering and affecting safety related equipment in the Auxiliary Building. This evaluation determined that no unreviewed safety question exists.

Ref: FSAR CN 98-063

RFR 18795

Evaluate Class 1E HVAC control valve position operability.

This RFR provided an operability evaluation for Class 1E air conditioning units based on ESW control valve position. This RFR did not change the design or operation of any plant system or component. Therefore, no unreviewed safety question was created by this evaluation.

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RFR 18796

Evaluate ECCS and CTMT Spray pumps for net positive suction head requirements.

This RFR evaluated the results of updated net positive suction head (NPSH) calculations for the emergency core cooling system (ECCS) and containment spray. In addition the results of calculations performed to address changes to containment flood depth and recirculation sump flow velocities based on the revised NPSH calculation assumptions were evaluated. The calculation results were used to update the values listed in the FSAR. This evaluation concluded that there is no adverse impact on the ECCS or containment spray system or component operability. An unreviewed safety question did not exist for this evaluation.

Ref: FSAR CN 98-050

RFR 18804

Evaluate RCS volume differences from FSAR to Curve Book.

RFR 18804 was initiated to resolve a question regarding Reactor Coolant System (RCS) liquid volume and mass which arose during a licensed training requal session. During the resolution of this question, it was identified that the FSAR listed values for RCS full power volume should be corrected. The changes in the FSAR text did not result in any changes to current plant configuration or design. This change enhances the accuracy of the FSAR description of current plant configuration. No unreviewed safety question was created by this evaluation.

Ref: FSAR CN 99-037

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RFR 18812

Evaluate storage of rubber hoses in Auxiliary Building Room 1304, 1305, & 1405.

Revision A allowed the storage of rubber hoses used by Operations for nitrogen accumulator leak rate testing to be stored in the Auxiliary Feedwater Pipe Chase Rooms (1304 and 1305). The small amount of combustible loading added by the rubber hoses would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire. The hoses are stored at least 5 feet from any plant equipment and would not adversely effect any equipment operation if they were to fall from the hose racks.

Revision B to this RFR allowed the storage of rubber hoses in the Auxiliary Building 2026' elevation, room 1405. The hoses are used by operations during outages and normal operations for surveillances and routine operation activities. The storage of these hoses within room 1405 of the auxiliary building will not affect plant safety.

These changes did not adversely affect the Fire Protection Program or Seismic II/I Program. No unreviewed safety question was created by these changes.

RFR 18900

Evaluate purging RHR sample lines to the Volume Control Tank.

The evaluation recommended that the RHR system sample line not be purged into the Volume Control Tank (VCT) due to the possible difference in boron concentration between the two systems. In addition, to prevent the purging of the RHR system sample lines into the VCT, the 1/4" quick disconnects were replaced with Swagelok tubing caps on sample purge lines. The 1/4" purge lines affected were located in the Nuclear Sample Panel and are non-safety related. Since the sample lines affected are non-safety related and have no affect on safety related equipment, an unreviewed safety question is not introduced, nor is there a decrease in the margin of safety as defined in the basis for any Technical Specifications.

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RFR 18913

Evaluate replacement of pipe caps with Swagelok quick disconnects.

This RFR allows the installation of quick disconnects in lieu of pipe caps on selected drain valves for the tube side of the LP heaters. These components are normally isolated from the process system by upstream isolation valves. This did not result in an increase in consequences or probabilities of a malfunction of any equipment important to safety. These components are not safety related and have no impact on margins of safety as determined by Technical Specifications. Consequently, this activity did not result in an unreviewed safety question.

RFR 18956

Assign component numbers to Mainsteam Pressure Transmitter vent isolation valves

This RFR assigned component numbers to 16 Mainsteam Pressure Transmitter vent isolation valves. Assigning component numbers alleviated difficulty in assigning Workman Protection Assurance to these valves during Mainsteam safety valve insitu testing. This RFR did not increase the consequence or probability of occurrence of an accident or malfunction of equipment important to safety previously evaluated in the FSAR. Nor will the possibility for an accident or malfunction of a different type than previously evaluated in the FSAR be created. In addition, there will be no reduction in the margin of safety as defined in the basis for any Technical Specification. Therefore, no unreviewed safety question was created by this change.

RFR 18968

Evaluate increased fuel burnup effects on fuel handling accident.

The FSAR review team identified that the bases for some of the assumptions used in the Licensing Bases Fuel Handling Accident radiological consequences analysis were no longer valid. This RFR was initiated to request resolution of this issue. It was found that the assumptions were still valid. However, the bases for these assumptions discussed in the FSAR was revised to clarify the reason why these assumptions remain valid. This change did not create an unreviewed safety question.

Ref: FSAR CN 99-037

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RFR 18970

Evaluate permanent storage of non-plant equipment within the Power Block.

This RFR approved the permanent storage of the fuel reconstitution basket, Rad/Chem locker, HEPA filter unit, floor buffer, carts, and other non-plant equipment in the Power Block. The permanent storage of this non-plant equipment in various rooms throughout the Power Block did not affect any plant equipment required for safe shutdown of the plant. These change did not adversely affect the Fire Protection Program, Seismic II/I Program, or any other plant program. No unreviewed safety question exists as a result of these changes.

RFR 18977

Remove WGDT Sample Valves from Locked Component List.

This RFR removed the locks from the Waste Gas Decay Tanks (WGDT) sample valves HAV0244 to HAV0253 and revised one Class One drawing to depict the position change from locked closed to closed. With the implementation of CMP 91-1027, the inadvertent unmonitored gas transfer between WCDDT or unmonitored release to the environment from these valves were eliminated. This modification did not affect plant safety. No unreviewed safety question was created by these changes.

RFR 19011

Evaluate use of 45 gpm Letdown during normal plant operations.

RFR 19011 requested the evaluation of 45 gpm letdown during certain transient modes of plant operation. Lowering the letdown flow to 45 gpm during transient modes of plant operation did not affect the transient responses as assumed, evaluated, and approved in the FSAR. A review of Chemical and Volume Control System (CVCS) components found they can accommodate the reduction in flow and the slight increase in fluid temperatures due to operation at 45 gpm letdown. No increase in consequences or probabilities, creation of new accident or malfunction, or reduction in the margin of safety resulted from this change in CVCS operation. This change did not result in an unreviewed safety question.

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RFR 19025

Evaluate basis for Containment Spray Injection phase time durations.

Revision A of this RFR was written to revise and document the basis for the Containment Spray Injection phase duration times included in FSAR Table 6.2.2-4. Calculations were performed to support and / or revise the numerical values found in FSAR Tables 6.2.2-4, 6.3-11, 6.3-11(a), 6.3-12 and 5.6-6 and FSAR section 6.3. This evaluation provided documentation to support the changes to the Refueling Water Storage Tank Lo-Lo-2 Level Alarm setpoint and the related changes to the FSAR. These change did not result in an unreviewed safety question.

Ref: FSAR CN 98-064
ES-1.3, Revision 1A2

RFR 19028

Evaluate primary spent resin tank rupture event source term.

The FSAR Review Team questioned whether the assumed source term for the Primary Spent Resin Storage Tank Rupture sequence was appropriate. The FSAR analysis was performed using the source term specified by the Standard Review Plan for the tank rupture event. Historical data was reviewed and no cases were found where plant values had exceeded safety analysis assumed values. The accident analysis was revised to demonstrate that accident consequences remain within the FSAR reported consequences given a source term that clearly bounds allowable plant operating conditions. No unreviewed safety question was identified during this evaluation.

Ref: FSAR CN 99-037

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RFR 19047

Approve new blower for the Main Feed Pump Lube Oil Vapor Extractors.

This material equivalent change addressed a minor fitup change between the replacement blower for the Main Feed Pump Lube Oil Vapor Extractors and the existing blower. The replacement blowers have two inch piping connectors and the existing blowers had one and half inch connectors, all other physical attributes and performance parameters are compatible. This RFR allowed the replacement blower to be installed as a material equivalent replacement. No unreviewed safety question was created by this change.

RFR 19053

Evaluate Vogtle RCP internals for use at Callaway.

RFR 19053 approved the replacement of the Reactor Coolant Pump (RCP) internals in either PBB01A or PBB01C with internals procured from another power plant. The replacement internals are for the same model 93A-1 RCP, were refurbished by the original equipment manufacturer (Westinghouse) and are essentially identical. The replacement RCP internals meet the original plant design criteria . No unreviewed safety question exists for this change.

Ref: Westinghouse safety evaluation SECL 99-087

RFR 19054

Approve storage of LISA equipment box in the Reactor Building.

This RFR approved permanent storage of Lift Indicating Switch Assembly (LISA) equipment box at the 2077' elevation of the Reactor Building, inside a concrete opening in the pressurizer compartment. The LISA equipment is used only during outages to work on pressurizer safety relief valves switches. Permanent storage of LISA equipment box in the Reactor Building did not affect plant safety. This change will not adversely affect the Fire Protection Program, Seismic I/II Program, or any other plant program. No unreviewed safety question was created by this change.

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RFR 19062

Evaluate HP release areas on 2000' elevation of the Auxiliary Building.

This RFR approved the establishment of HP release areas within the Radiological Controlled Area on 2000' elevation of the Auxiliary Building. The establishment of the HP release area could result in the accumulation of combustible material in the areas. This RFR provided limits on the amount of combustibles which can be stored in the areas without requiring a transient combustible permit. The quantity of combustible material allowed to be stored in the HP release areas will not contribute to fire which could adversely affect safe shutdown of the plant. There is also no safety-related equipment at floor level which could be damaged by items placed in the areas during seismic events. This change did not result in an unreviewed safety question.

Ref: FSAR CN 98-052

RFR 19079

Replace carbon steel service water piping with stainless steel piping.

This RFR authorized the use of stainless steel piping between the Service Water and Breathing Air systems. The existing plain carbon steel line is three inch NPS piping running approximately four feet between the supply and return headers of the Service Water system and the corresponding Breathing Air isolation valves. Use of stainless steel will eliminate pipe wall pitting.

Because these changes did not affect systems, structures or components important to safety, the probability and/or consequences of a malfunction of equipment important to safety is not altered by this change. This modification did not result in an unreviewed safety question.

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RFR 19086

Revise Main Steam Tunnel pressure and temperature profiles.

The revised Main Steam Tunnel pressure and temperature profiles derived in Bechtels Calculation M-98-001 and Bechtels Letter NOPS 99-207 were reviewed and were found to not pose an unreviewed safety question. The conclusions and rationale used in the NRC approved failure mode effects analysis submitted in SLNRC 86-06 remains valid. Performance of safety related equipment in the Main Steam Tunnel will continue to satisfy the input assumptions utilized in the FSAR analysis of the Main Steam Line Break accident sequence.

RFR 19103

Evaluate covering grating over in-core tunnel.

This RFR approved the use of a temporary cover over the Incore Instrument Tunnel grating during plant outages (Modes 5&6). Although the covering of the grating resulted in a slight change in the air distribution within the tunnel, the safety-related components in the area will not be adversely affected. The temporary covering of the grating did not decrease the margin of safety as defined in the basis for any Technical Specification and did not create an unreviewed safety question.

RFR 19122

Eliminate nitrogen injection if chemical degasification was performed.

This evaluation examined the effects of bypassing the injection of nitrogen gas to the Reactor Pressure Vessel Head during Reactor Coolant System (RCS) draindown following a plant shutdown. Nitrogen injection to the head may only be bypassed if chemical degassing was performed using hydrogen peroxide and RCS hydrogen concentration has been reduced to <5 cc/kg. Failure to inject nitrogen into the head under these conditions does not adversely affect the RCS or any of its supporting safety related systems. Plant response to a design based accident is also unaffected. This procedure change did not represent an unreviewed safety question.

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RFR 19130

Storage of Refuel Machine calibration block in the lower refuel cavity.

This RFR approved the permanent storage of a Refuel Machine calibration block in the refueling pool lower cavity, near the emergency disengage plate. The calibration block will be lifted by the Refuel Machine mainhoist/gripper for calibration. Permanent storage of this calibration block in the refueling pool lower cavity will not affect plant safety. This change will not adversely affect the Seismic II/I Program or any other plant program. No unreviewed safety question exists as a result of this change.

RFR 19171

Evaluate Fire Protection Design Document Discrepancies.

This RFR corrected discrepancies in the FSAR Fire Hazards Analysis for the Auxiliary Boiler Room, Turbine Building and the Reactor Building. This RFR did not change the design or operation of any plant equipment. The conclusions of the FSAR Fire Hazards Analysis for the Turbine Building, Auxiliary Boiler Room and Containment were not changed as a result of this RFR. This RFR resolution did not result in an unreviewed safety question.

Ref: FSAR CN 98-074

RFR 19196

Update Fire Hose Station Documentation.

This RFR changed the design drawings and surveillance procedures to reflect the as-built locations of the fire hose stations in the plant. These changes did not affect the design or operation of any plant fire equipment. The changes made in this RFR are a matter of maintaining configuration control. The changes made in the locations of the hose stations were minor and did not affect the conclusion of the FSAR Fire Hazard Analysis. This change did not result in an unreviewed safety question.

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RFR 19219

Evaluate fire extinguisher program discrepancies identified during FSAR review.

This RFR addressed discrepancies of fire extinguisher locations that exist between the Fire Preplan Manual, The CA-#1570 forms and the A-28XX series Fire Area Delineation drawings. The fire extinguishers are not being relocated by this RFR; the drawing are being updated to accurately show the extinguisher locations. The affected drawings are included within the FSAR. Although the FSAR drawings are affected, the drawing will not be updated until the periodic FSAR update as allowed by procedure. This change did not create an unreviewed safety question.

RFR 19223

Evaluate permanent storage of non-plant equipment within the power block.

This RFR approved the permanent storage of the laundry containers, steam cleaner, tool drop-off station, posting stanchions, bag rings and gang boxes as described in the RFR's. Permanent storage of non-plant equipment as described in this RFR will not affect plant safety. These changes did not adversely affect the Fire Protection Program, Seismic II/I Program, or any other plant program. No unreviewed safety question exists as a result of these changes.

RFR 19228

Evaluate combustible loading in Communications Corridor, 1974' elevation.

This RFR evaluated the storage of flammable and combustible material in the Communications Corridor 1974' elevation, Room 3102. The placement of combustibles in this area will not contribute to a fire which could affect equipment required for safe shutdown of the plant. The conclusions of the FSAR SP Appendix 9.5B Fire Hazards Analysis are not changed. This change did not result in an unreviewed safety question.

Ref: FSAR CN 98-075

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RFR 19254

Evaluate area drain adequacy for Fire Water Suppression Systems.

This RFR evaluated the accuracy of statements in the FSAR regarding the adequacy of drainage systems for handling fire water discharge. The drainage systems were determined to be adequate, however a statement in the FSAR which stated the drains will prevent fire water run off into other fire areas was determined to be incorrect. FSAR CN 99-004 was generated to correct this statement. This change did not physically alter the plant design or operation. No unreviewed safety question was created by this change.

Ref: FSAR CN 99-004

RFR 19256

Modify Vent line downstream of valve BGV0399.

RFR 19256, revision A modified the end connection of a vent location on the Chemical and Volume Control System (CVCS). The location is a high point on the non-safety related Boron Thermal Regeneration System (BTRS) portion of the system. The current end termination is a threaded pipe cap. This modification approved the installation of additional fittings to ease the venting process and result in an ALARA improvement.

The modified vent assembly was designed to meet existing system design requirements. The CVCS was analyzed as acceptable considering this change. The system was not adversely impacted, and remained capable of performing all its safety functions. This change did not create an unreviewed safety question.

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RFR 19264

Determine valve surveillance requirements to meet Tech. Spec. 4.7.1.2.1.A.1.

This RFR evaluated the required Technical Specification flow paths for the Auxiliary Feedwater System and its related valves. The RFR determined that valves AEV0128, AEV0129, AEV0130, and AEV0131 need to be surveilled unless they are locked closed. These valves are manual valves whose normal position is closed. Locking these valves closed, helps to ensure that an Auxiliary Feedwater path exists for the steam generators. There are no changes to the method by which any safety-related plant system operates or performs its safety function. Revision B of this RFR updates the drawing M-22AE02 to show the valves closed and locked instead of just closed. No unreviewed safety question exists for this change.

RFR 19268

Evaluate Tech. Spec. flow path for low head safety injection.

This RFR evaluated the required Technical Specification flow paths for the low head safety injection portion of the Emergency Core Cooling System (ECCS). The RFR requires that valves EJV0001 and EJV0002 are locked closed. These valves are manual valves whose normal position and accident position is closed. Locking these valves closed, help to isolate a branch line and ensures the Residual Heat Removal (RHR) train separation is maintained. There are no changes to the methodology by which any safety related plant system operates or performs its safety function. No unreviewed safety question exists.

RFR 19278

Evaluate Tech. Spec. flow paths for high head safety injection.

RFR 19278 evaluated the required Technical Specification flow paths for the high head safety injection portion of the Emergency Core Cooling System (ECCS). The RFR required that valves BG8398A and BG8398B are locked open. These valves are manual valves whose normal position and accident position is open. Locking these valves open, helps to ensure that a recirculation path exists for the Centrifugal Charging Pumps (CCPs). There is no change to the method by which any safety related plant system operates or performs its safety function. No unreviewed safety question exists for this evaluation.

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RFR 19289

Determine valve surveillance requirements for FSAR 16.1.2.2.1.a.

This RFR performed an evaluation to determine which valves are required to be surveilled per FSAR 16.1.2.2.1.a. The RFR concluded that valves BG8465A, BG8465B, and BGV0319 should be locked closed instead of just closed. These valves are manual valves whose normal position and accident position are closed. Locking these valves closed, helps to ensure that a boration flow path exists. The lock can be removed and the valve repositioned as necessary using administrative controls. There is no change to the method by which any safety related plant system operates or performs its safety function. No unreviewed safety question was created by this change.

RFR 19290

Permanent storage of portable building outside of the Turbine Building.

This RFR approved the location of a portable, preassembled building outside of the Turbine Building, adjacent to the Southwest stairwell enclosure for use by security personnel. This building is needed to support changes to the Security Response Strategy which created a need for additional security manpower in this area. Permanent storage of a portable building outside of the Turbine Building did not affect any plant safety-related systems or components. This change did not adversely affect the Fire Protection Program, Seismic II/I Program or any other plant program. No unreviewed safety question exists as a result of this change.

RFR 19304

Update drawing E-21005 to show additional loads from NK25 and NK26.

RFR 19304 revised the load listing on the Emergency Diesel Generators (EDGs) to reflect recent modifications, calculations, and a detailed review of the original EDGs analysis. The changes in the load listings for the EDGs slightly reduced the EDGs total load and did not adversely impact the ability of the EDGs to start and accept the listed loads in the time specified in the FSAR and Technical Specifications. The changes did not change the way the EDGs operate or how equipment connected to the EDGs operate. There was no unreviewed safety question created by these changes.

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RFR 19315

Revise drawing M-22AC03 to show valve ACV0019 as normally open.

This RFR changed drawing M-22AC03 to show valve ACV0019 in the open position. This FSE is written due to the change to FSAR Figure 10.2-1 sheet 3. The transmitter root valve ACV0019 for transmitter ACPT0512 must be open for the transmitter to function and thus supply the pressure signal to computer point indication. CMP 84-0687A installed ACPT0512 to monitor crossover pressure to be used in the detection of leaks in the MSR tubes. Root valve ACV0019 was not shown open on the CMP drawings.

The change to drawing M-22AC03 and valve ACV0019 did not challenge any plant system important to safety or create any accident scenarios not previously analyzed in the FSAR. The change in the valve position indication on Figure 10.2-1 sheet 3 drawing description in the FSAR will keep the plant configuration consistent to that described in the licensing documents. No unreviewed safety question was created by this change.

RFR 19317

Evaluate FSAR review team recommended FSAR Change for BG and EM system

This RFR evaluated the FSAR Review Team proposed changes related to Chemical and Volume Control system (CVCS) and High Pressure Coolant Injection system operation, described in the FSAR, which need clarification and/or wording modification to accurately reflect current plant practices regarding chemistry control. The items were identified via SSFA 98-01, Appendix 1, as FSAR Matrix Items 50, 52, 53, 55, 57, 64, 72, 73, 109, 124, 162, 193, 194, 195, and 197. This evaluation concluded that FSAR wording changes and/or clarifications in accordance with this RFR may be made as suggested by the FSAR Review Team, to support QA SSFA 98-01 identified items. No unreviewed safety question exists as a result of these changes.

Ref: RSAR CN 99-002

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RFR 19318

Evaluate FSAR review team recommended FSAR Change for BG and EM system

This RFR evaluated the FSAR Review Team proposed changes related to Chemical and Volume Control system (CVCS) and High Pressure Coolant Injection system operation, described in the FSAR, which need clarification and/or wording modification to accurately reflect current plant practices regarding chemistry control. The items were identified via SSFA 98-01, Appendix 1, as FSAR Matrix Items 6, 15, 25, 173, 198, and 199. This evaluation concluded that FSAR wording changes and/or clarifications in accordance with this RFR may be made as suggested by the FSAR Review Team, to support QA SSFA 98-01 identified items. No unreviewed safety question exists as a result of these changes.

Ref: FSAR CN 99-002

RFR 19327

Evaluation of Turbine Building Fire Area Designations.

RFR 19327 evaluated the Turbine Building fire area delineations concerns identified by the FSAR Review Team. As a result of this evaluation, this RFR made corrections to drawings and initiated an FSAR change notice to clarify the discussion of the Turbine Building fire areas. This RFR made no physical changes to the plant. The Turbine Building contains no equipment needed for safe shutdown of the plant and the conclusion of the FSAR Fire Hazards was not affected by this change. This change did not create an unreviewed safety question.

Ref: FSAR CN 99-006

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RFR 19347

Evaluate operability and surveillance requirements for fire doors.

RFR 19347 evaluated the operability requirements for all fire doors which separate safety related fire areas. This RFR generated an FSAR change notice to clarify statements in the FSAR regarding closing mechanisms not installed on missile and watertight doors. These changes did not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire. The fire hazards analysis was not affected by these changes. This change did not create an unreviewed safety question.

Ref: FSAR CN 99-013

RFR 19350

Revise drawing M-22CB01 for the 5 turbine lube oil sample valves.

This RFR corrected the depiction of the sample valves in the Main Turbine Lube Oil Sample Sink. The valves were depicted as globe valves while the installed valves are ball valves. The equipment involved has no safety related function. Failure of this equipment would not affect any safety related equipment. This RFR did not represent any physical change to any plant component nor did it change any of the original accident analyses. This change did not create an unreviewed safety question.

RFR 19355

Evaluate fire barriers between Area 5 and Turbine Building.

This RFR evaluated the acceptability of the fire barrier separating the main steam and feedwater valve compartment in the Auxiliary building from the Turbine Building. The RFR concluded the barrier was acceptable and that a Turbine Building fire would not affect safe shutdown of the plant. This RFR generated an FSAR Change Notice to clarify statements in the FSAR Fire Hazards analysis regarding the discussion of this barrier. This change was not an unreviewed safety question.

Ref: FSAR CN 99-006

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RFR 19359

Evaluate combustible loading discrepancies for communication corridor.

This RFR added rooms to the communication corridor fire area description in the FSAR Fire Hazard Analysis. In addition, the quantity of combustible loading in Room 3619 was added to the FSAR Fire Hazards Analysis. The quantity of combustible materials which are allowed to be stored in the Communications corridor will not contribute to fire which could adversely affect safe shutdown of the plant. There is no safety-related equipment which could be damaged by items placed in this area during a seismic event. This change did not result in an unreviewed safety question.

Ref: FSAR CN 98-052
FSAR CN 98-082

RFR 19379

Evaluation of Capacity of Fire Water Storage Tank.

RFR 19379 evaluated the capacity requirements for the fire water storage tanks. This RFR was initiated by the FSAR Review team during the review of the fire protection sections. The FSAR has several statements regarding the capacity of the fire water supply. This RFR evaluation generated an FSAR Change Notice to delete unnecessary over-commitments for fire water capacity. As a result of this RFR no changes were made to the design or function of any plant equipment. The FSAR Fire Hazards Analysis was also not affected by this change. No unreviewed safety question was created by this change.

Ref: FSAR CN 99-030

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RFR 19380

UHS Cooling Tower Combustible Loading Evaluation.

This RFR evaluated the combustible loading in the UHS Cooling Tower for the contoured fan cylinders. The quantity of combustible materials which are contained in Rooms U306 and U307 of the UHS Cooling Tower will not contribute to fire which could adversely affect safe shutdown of the plant. The redundant cooling tower cells are separated by 3 hour rated fire barriers. A fire in each room could only affect the train of equipment contained in that room. The quantity of combustible loading for each room is considered very low. These rooms see very little traffic and activity such that a fire due to transient combustibles are unlikely. The evaluation concluded that there was no unreviewed safety question due to this change.

Ref: FSAR CN 98-085

RFR 19388

Change M-22CG01 to show valves CGPC4, 5, and 6 as FAIL OPEN not FAIL CLOSE.

This RFR corrected the failed position of valves CGPC0004, CGPC0005, and CGPC0006 on drawing M-22CG01 from Failed Closed to Fail Open. This drawing is represented in the FSAR as Figure 10.4-3. This RFR did not physical change the design or operation of any plant equipment nor will it change any of the original accident analyses. No unreviewed safety question exist for this change.

RFR 19409

Resolve fire rating for missile door between RAM Storage Bldg and Auxiliary Bldg

The RFR evaluated the Missile Door 15041, between the RAM Storage Building and the Auxiliary Building, and concluded that the door has a Class A fire rating (3-hour) like ten other similar missile doors installed in fire walls of the plant. There was no adverse impact on the existing design basis of the facilities, structures, or systems. The RFR evaluation posed no operability concerns and an unreviewed safety question did not exist.

Ref: FSAR CN 98-093

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RFR 19415

Fire Protection Procedure / Drawing Discrepancies

RFR 19415 verified the accuracy of the procedures which govern and implement fire door surveillances, the accuracy of fire door schedule drawings, and makes corrections to an FSAR Table which lists areas with fire suppression coverage. No actual changes were made to plant equipment by this RFR. This change did not adversely affect the FSAR Fire Hazards Analysis. No unreviewed safety question exists for this change.

Ref: FSAR CN 99-020

RFR 19421

Revise drawing to show valve assembly downstream of valve AKV5000.

This As-Built RFR revised drawing M-22AK01 to correctly depict the existence of the sample valves assembly installed downstream of valve AKV5000. The equipment involved has no safety-related functions. Failure of this equipment would not affect any safety-related equipment. This RFR did not represent any physical changes to any plant component nor will it change any of the original accident analysis. This change did not result in an unreviewed safety question.

RFR 19422

Add position indication marks to valve EGHV0061 and EGHV0133.

This RFR replaced an installed Bechtel Purchase order tag with a valve position scale of similar size, weight, and material on valves EGHV0061 and EGHV0133. This replacement provides a means to properly measure valve stroke. Each of these valves has a design basis function, but the installed Bechtel tag does not provide any support for the performance of their design function. Replacing the Bechtel tag with a similar sized and material position scale did not alter any of the evaluations for these valves. This change did not result in an unreviewed safety question.

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RFR 19425

Downgrade Diesel Generator level indicators to non-safety related seismic II/I.

This RFR changed the safety classification of the Emergency Diesel Generator Lube Oil Sump and Auxiliary Lube Oil Tank local level indicators from safety related to non-safety related seismic II/I. Since these indicators perform no controlling functions and their failure would have no impact on any equipment important to safety, this change did not impact any accident analysis on the FSAR or create the possibility of an accident that is not in the FSAR. It also had no impact on any Technical Specifications. This change had no impact on any aspect of nuclear safety and an unreviewed safety question did not exist.

RFR 19428

Update room 1405 description to reflect current usage.

RFR 19428 made changes to design documents and licensing documents to make consistent the name given to Room 1405 of the Auxiliary Building. The room will be referred to as "Operations Storage Area/ I&C Hot Instrument Shop." These changes are considered administrative in nature and no physical changes to plant design or operation were made as a result of this RFR. These changes did not result in an unreviewed safety question.

Ref: FSAR CN 99-006

RFR 19442

Evaluate Containment Cooler Motor changeout in Mode 3.

This evaluation demonstrated that movement of the A Containment Cooler motor in Mode 3 to facilitate repair/replacement was acceptable. Load movement was controlled in accordance with previously evaluated load handling methodology. Rigging, lift height, and load path were controlled to ensure that safety related structures, systems and components were not prevented from performing their safety functions. This evaluation did not result in an unreviewed safety question.

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RFR 19460

Revise the High Energy Line Break discussion in FSAR.

While performing its review of the Component Cooling Water (CCW) system, the FSAR Review Team identified discrepancies between the results summary presented in FSAR Table 3.6-4, and in the five volume High Energy Line Break Analysis (HELBA). These discrepancies were evaluated and resolved by this RFR. As a result, FSAR Table 3.6-4 was revised to accurately reflect the evaluations documented in the HELBA and other supporting calculations.

No changes to installed plant equipment were made. The FSAR was simply revised to be consistent with the supporting analysis. This change did not involve a change to the Technical Specifications and an unreviewed safety question did not exist.

Ref: FSAR CN 99-014

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RFR 19479

Safety evaluation for Cycle 10 Axial Offset Anomaly.

The Axial Offset Anomaly (AOA) was evaluated in the Cycle 9 Safety Evaluation per RFR 17096P. Revision A to this RFR evaluated the AOA for Cycle 10. All of the assumptions used in the Cycle 9 Safety Evaluation remain valid except the crud thickness and boron reactivity worth. These differences were addressed in this evaluation and it was concluded that the Cycle 9 Safety Evaluation will remain bounding until April 15, 1999. Based on this evaluation, the changes in crud thickness and in boron reactivity worth from Cycle 9 to Cycle 10 did not invalidate the conclusions from Cycle 9 Safety Evaluation. Therefore, the safety evaluation performed for Cycle 9 bounds plant operations for Cycle 10. No unreviewed safety question exists.

Revision C to this RFR assessed continued plant operations for the remainder of Cycle 10 with the presence of the axial Offset Anomaly (AOA) and assessed the release rate evaluation for use in shutdown margin calculations. Westinghouse developed a conservative, time-dependent model for the boron behavior in the crud following a reactor trip. This safety evaluation, along with its attached Westinghouse documents, provides technical bases for relaxing the overly conservative assumption on boron behavior in the crud following a reactor trip. This proposed model accounts for 27% of the boron in the crud being instantaneously released into the RCS immediately following a reactor trip. To ensure shutdown margin remains above 1,300 pcm following a reactor trip and to preclude entering the action statement for Technical Specification 3.1.1.1, EOP E-0 is being revised to add a step for the operator to borate to compensate for the positive reactivity added as a result of the time dependent boron release. To support continued Cycle 10 plant operations beyond April 15, 1999, Westinghouse has assessed the pre-trip effects of AOA, and the post-trip effects AOA (using the proposed release rate evaluation), on the FSAR Chapter 15 accident analyses. Their evaluation concluded that the Callaway Plant can continue to safely operate for the remainder of Cycle 10 and that the AOA, including the effects of boron reactivity worth and crud thickness, does not represent an unreviewed safety question.

Revision E provided revised heat flux and axial flux difference (AFD) limits for Cycle 10. Revision C to this RFR established administrative controls to limit the risk of dryout occurring in fuel assemblies with crud. These controls were based on guidance provided in a letter from Westinghouse. Subsequent Westinghouse letters provided revised heat flux and axial flux difference limits for cycle 10. This revision assessed the impact of continued plant operations for the remainder of Cycle 10 with these revised limits and administrative controls. It was concluded that these changes did not constitute an unreviewed safety

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question.

Ref: OSP-SF-00001, Revision 22

RFR 19491

Evaluate operability of EDGs during fuel oil transfer pump surveillance.

RFR 19491 requested an operability evaluation be performed to determine if the performance of the fuel oil transfer pump surveillance had an adverse impact on the operability of the emergency diesel generators. The RFR requested that the evaluation address the fact that the fuel oil transfer pump is running constantly during the test and that the fuel oil flowrate is reduced by throttling of valves. The evaluation concluded that there was no impact on diesel generator operability during the performance of the fuel oil transfer pump surveillance. No unreviewed safety question was identified during this evaluation.

RFR 19515

Generic evaluation of non-plant equipment storage.

This RFR performed a baseline engineering analysis for permanent storage of future non-plant equipment items in the plant. RFR evaluations of this type have been performed previously for specific requests, but this generic evaluation will provide the basic criteria and licensing reviews which future evaluations may refer to if the basic criteria are complied with. Permanent storage of non-plant equipment items, as described in the RFR, in the plant will not affect plant safety. These changes did not adversely affect the Fire Protection Program, Seismic II/I Program, or any other plant program. No unreviewed safety question exists as a result of these changes.

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RFR 19524

Clarification of text in FSAR Section 18.2.11.3.

This RFR initiated an FSAR Change Notice to correct the wording in FSAR Section 18.2.11.3 which describes the diverse methods of initiating a Containment Isolation Signal-Phase B. This Change Notice made the wording in section 18.2.11.3 consistent with other sections of the FSAR. Since there is no change to the plant or its procedures as a result of this change and since the NRC has already reviewed and accepted in the SER the plant configuration given in the other sections, there was no unreviewed safety question generated by this change.

Ref: FSAR CN 99-009

RFR 19531

Allow use of Reactor Makeup Water for testing without a Temporary Modification

RFR 19531 requested an evaluation to review and approve the use of the Reactor Makeup Water System (RMWS) for testing purposes without a requirement to implement a temporary modification each time. Except for an associated containment penetration, the RMWS is not a safety related system. The RMWS is design to provide high quality degassified water to minimize corrosion and to be compatible with Reactor Coolant System water chemistry.

Use of the RMWS for these testing functions is in accordance with its original design and will be controlled using approved plant procedures. There are no adverse impact to the RMWS or to associated safety related systems from this change. An unreviewed safety questions was not created by this change.

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RFR 19558

Change the Containment Humidity Monitoring System range in the FSAR.

This RFR changed the range listed in the FSAR for the Containment Humidity Monitoring System. This was an FSAR update to correct the description only. There were no actual physical or functional changes to the system. Since this is an indication system only, this change can neither cause an accident nor can it adversely impact any equipment important to safety. An unreviewed safety question was not created by this change.

Ref: FSAR CN 99-018

RFR 19564

Installation of temporary water coolers in containment during Refuel outages.

This RFR evaluated the installation of two temporary water fountains in containment during refueling outages. The water fountains will be installed during Mode 5 and removed before entry into Mode 4. The fountains will be located on the 2000' and 2051' elevations of the Reactor Building and connected to potable water on the 2047' level of the Auxiliary Building. The tubing will be run through the Personnel Hatch using quick disconnects to allow easy removal of the tubing in case closure of the doors is required. The Potable Water System serves no safety function and has no safety design bases. The installation of these fountains did not increase the consequence or probability of occurrence of an accident or malfunction of equipment important to safety previously evaluated in the FSAR. This change did not result in an unreviewed safety question.

RFR 19569

Revise drawing M-22KD02 to show isolation valve downstream of eyewash station.

This RFR as-built drawing M-22KD02 to show a manual isolation valve located near emergency eyewash/shower KD-ESEW-0015. The valve was apparently installed with the eyewash station but not identified on the drawing. The valve is being identified to improve tagging methods when removing the eyewash station for maintenance. This system has no safety design basis and this portion of the system does not interface with any safety related equipment. No unreviewed safety question was created by this change.

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RFR 19586

Operability evaluation for Hydrogen Mixing Fan Motor.

This RFR is for an OPERABILITY evaluation for hydrogen mixing fan DCGN03B. This fan motor was found to be operating with a lower operating current than the previous motor it had replaced. This led to the possibility that the motor's design had changed from the original design.

The function of the hydrogen mixing fans is to provide a means of assuring mixing of the hydrogen generated following a LOCA within containment atmosphere in order to prevent formation of pockets of hydrogen. During normal operation, the hydrogen mixing fans are used to supplement air distribution from the containment coolers.

The motor is equivalent to or exceeds the original motors. Thus, the performance will exceed the original design. This motor will not affect the equipment being used to mitigate the effects of an accident evaluated in the FSAR. There were no unreviewed safety question associated with the use of this material equivalent motor.

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RFR 19589

Update FSAR Table 3.2-1 classifications for Diesel Generator Starting Air Equip.

The FSAR review team identified a minor inconsistency between the Callaway Equipment List (CEL) Qlist information and FSAR Table 3.2-1 "Classification of structures, components and systems". The CEL Qlist identified the Emergency Diesel Generator (EDG) Starting Air to Pressure Instrumentation Filter FKJ06A & B as being safety related for pressure boundary. However, FSAR Table 3.2-1 classified them as seismic non-Category I. Since they are installed in a safety related air system and must survive an SSE, they should be classified as Category I in accordance with Regulatory Guide 1.29. Their qualification as documented in report R7000001-546 (M-018-00316) reflects this level of design. Thus, FSAR Table 3.2-1 will be changed from 'N' (non-Category I) to 'S' (Category I for structural integrity only). There is no impact to the design, operation or qualification of the installed or spare filter. Thus function and operability of the EDG is unaffected and no unreviewed safety question exists.

The FSAR review team also identified inconsistencies on the CEL Qlist screens for several of the associated downstream pressure transmitters and local indicators. The transmitters are listed as passive only. However they also had the Qlist reason of indication. The active safety function of indication has been removed since these items provide only local indication and are not associated with any of the EDG's automatic trips or controls. Further they do not provide output signals for remote or local annunciation and are not required during any Technical Specification acceptance activities or Emergency Operating Procedures. Thus, the transmitters and indicators of this RFR are considered to have passive safety function only. They had no impact on the operation of the EDG. No unreviewed safety question exists.

Ref: FSAR CN 99-025

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RFR 19611

Change position of Valve GLV0148 from normally open to throttled 10% open.

This RFR changed the position of Valve GLV0148 of the Hydrogen Purge System (HPS) from full open to 10% throttled. Both the FSAR and SER state that valve GLV0148 will be throttled to limit flow to 100 scfm. Calculation M-GL-253 equated 100 scfm to a 4 inch valve throttled 10%. The 100 scfm protects the Emergency Exhaust System from over pressurization. Valve GLV0148 of the HPS is not safety related and serves no safety function. Changing the position of the valve from full open to throttled 10% open matches the configuration as stated in the FSAR. This is neither a change to Technical Specifications, nor a test or experiment not described in the FSAR. No unreviewed Safety question exists.

RFR 19618

Administrative controls for removal of plant missile shields.

This RFR evaluated placement of administrative controls on moveable or removable missile shields when they are opened for planned maintenance or similar evolutions. The administrative controls assure that operable equipment is protected by the missile shields when threatening weather conditions occur. This RFR did not change the plant design or operation and did not affect any of the accident analyses. No unreviewed safety question was created.

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RFR 19637

Approve the use of an ultrasonic fuel cleaner.

Revision A to this RFR evaluated the use of an ultrasonic fuel cleaning apparatus to remove crud from up to 4 fuel assemblies with the intent of operating these fuel assemblies in the core for the remainder of Cycle 10.

Revision B to this RFR approved the use of the ultrasonic fuel cleaning apparatus to remove crud from up to 16 fuel assemblies to be loaded in the reactor core for Cycle 11.

The ultrasonic cleaning process was developed by Dominion Engineering, Inc., under the sponsorship of EPRIs Robust Fuels Program. This evaluation concluded that use of the ultrasonic fuel cleaning apparatus in the spent fuel pool as described in this RFR would not adversely affect any safety related systems or components. Also it was determined that the use of the ultrasonic cleaning process on the fuel assemblies would not adversely affect the fuel assemblies such that they could not be operated for the remainder of Cycle 10. It was determined that no unreviewed safety question exists for this change.

Ref: ETP-ZZ-ST022, Revision 000, Revision 001, and Revision 002
ETP-ZZ-ST023, Revision 000 and Revision 001
ETP-ZZ-ST024, Revision 000 and Revision 001
ETP-ZZ-00050, Revision 000

RFR 19641

Install cam-lok fittings in place of pipe caps at 2 locations on the Cont. Spray

This RFR approved the replacement of two 3/4" NPT pipe caps on the containment spray system with a cam-lok configuration that allows easier and faster utilization of the connection. For the affected test connections, the existing 3/4" valve provides the ASME Code boundary. The existing threaded cap, which is being replaced, serves as a second non-safety boundary in the event the upstream valve experiences seat leakage. The safety related containment spray system was not adversely impacted by this change, and remains capable of performing all its safety functions. Therefore, an unreviewed safety question did not exist.

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RFR 19649

Evaluate motor operated valve indication on the ESF status panel.

This RFR revised the FSAR to correct the description of the Engineering Safety Feature Status Panel system where it involves the indication of NSSS motor-operated valves that are normally in the safeguard ready position and do not receive a RED light when out of their ready position. This change did not modify the design or operation of any plant system. No unreviewed safety question exists for this change.

Ref: FSAR CN 99-015

RFR 19670

Evaluation of Personnel Lockers outside Control Room.

This RFR approved the installation of personnel lockers in the Communication Corridor 2047'-6" elevation, Room 3614. There were no credible failure modes associated with this change. The quantity of combustible materials which are allowed to be stored in this area will not contribute to fire which could adversely affect safe shutdown of the plant. There is no safety-related equipment which could be damaged by items placed in this area during a seismic event. This change did not result in an unreviewed safety question.

RFR 19723

Evaluate use of temporary shield plug in lieu of the concrete shield plugs.

An evaluation was performed by this RFR on the working radiation shield plugs (SHC06A and B) to determine if they were structurally stable to be allowed to remain in place over operating equipment in lieu of the standard reinforced concrete shield plugs. The working shield plugs were found to be structurally adequate and were approved for use over operating equipment in lieu of the concrete plugs to reduce radiation exposure. An unreviewed safety question did not exist.

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RFR 19730

Add equipment ID's to Flow Orifices on the Breathing Air Compressors.

RFR 19730 added equipment ID's to four existing flow orifices on the Breathing Air Compressors to the Callaway Equipment List and Drawing M-22KB02. The RFR does not involve any physical changes to the plant, plant operations, or design bases. The equipment involved has no safety related functions and failure of this equipment could not credibly affect any safety related equipment. This change did not create an unreviewed safety question.

RFR 19742

Evaluate changes to FSAR and plant drawing M-22BB02

Revision C to this RFR evaluated discrepancies identified during the FSAR Task Team review and approved corrections to the FSAR and drawing M-22BB02. The text and drawing corrections did not create a challenge to any plant system important to safety or create any accident scenarios not previously analyzed in the FSAR. This change did not result in an unreviewed safety question.

RFR 19775

Revise drawing to show Valve KAV0278 normal position as closed.

This RFR corrected the normal position of valve KAV0278 from Open to Closed which required a change to drawing M-22KA01. This drawing is represented in the FSAR as Figure 9.3-1. This RFR does not represent any physical changes to any plant component nor will it change any of the original accident analyses.

This RFR did not increase the consequence or probability of occurrence of an accident or malfunction of equipment important to safety previously evaluated in the FSAR. Nor will the possibility for an accident or malfunction of a different type than previously evaluated in the FSAR be created. In addition, there will be no reduction in the margin of safety as defined in the basis for any Technical Specification. No unreviewed safety question exists.

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RFR 19787

Clarify Hydrogen Analyzer Isolation Valves normal position.

This RFR clarified in the FSAR that the Hydrogen Analyzer Containment Isolation Valves are normally closed with power removed from their control circuits during power operations. Also, the Failure Modes and Effects Analysis of the Device Level Manual Override Circuits for the sample valves that are closed by a Phase A Containment Isolation Signal is being rewritten to reflect the as-built design. Since this is a clarification only, and there are no changes to the actual operation of the valves, there was no increase in the probability of occurrence or the consequences of any accident or malfunction of equipment important to safety as a result of this change. This evaluation did not result in an unreviewed safety question.

Ref: FSAR CN 99-036

RFR 19799

Revise FSAR section 7.2.2.2.1 and Figure 7.3-1

This RFR evaluated several changes to FSAR Section 7.2.2.2.1 and FSAR Figure 7.3-1. These FSAR changes are clarifications of the FSAR content and reflect the existing plant design. There were no physical changes to the plant as a result of these changes. All information in the change is supported by previous evaluations and/or original plant licensing documents. No unreviewed safety question exists.

Ref: FSAR CN 99-037

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RFR 19800

Evaluate Containment Pressure Instrument Line Separation Criteria.

This RFR evaluated the current physical separation of the impulse lines for Containment Pressure transmitters, GNPT0935 and GNPT0937. These lines run parallel with each other through the same containment penetration. Based upon a review of the hazards at this location, the current configuration of the impulse lines for the containment pressure transmitters is acceptable for plant operation. No unreviewed safety question exists for this RFR.

Ref: FSAR CN 99-038

RFR 19803

Install manual isolation valve to penetration 50 for ILRT depressurization.

RFR 19803 allowed the installation of a manual gate valve on spare penetration 50. This valve was used as a depressurization pathway following the ILRT. The ILRT procedure will govern the installation and removal of this valve. The procedure will limit installation of the valve to mode 5 when containment integrity is not required. The installation did not affect the probability or consequences of an accident or malfunction of equipment important to safety. Further, this will be installed at a time when Technical Specification requirements for containment integrity is not required. This change did not result in an unreviewed safety question.

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RFR 19812

Evaluate ILRT blowdown to atmosphere from ILRT pressurization line.

This RFR approved the use of the Integrated Leak Rate Test (ILRT) pressurization line to vent the containment air volume, subsequent to the pressure test. The plant was in mode 5, such that neither Containment integrity or automatic isolation capability was required. Pre-test Containment grab samples along with Offsite Dose Calculation Manual (ODCM) dose and dose rate calculation methodologies were employed to maintain compliance with FSAR Chapter 16 gaseous effluent limiting conditions of operation. Based upon the formal safety evaluation for this RFR, no unreviewed safety question exists.

Ref: FSAR CN 99-046

RFR 19820

Revise M-22KC01 to reflect as-built configuration of valve KCV0707.

This RFR revised drawing M-22KC01 to show the as-built configuration of drain valve KCV0707. Drain valve KCV0707 was originally installed to drain indirectly to a common drain header pipe. Drawing M-22KC01 (FSAR Figure 9.5.1-1) shows the drain valve end closure blind flanged. The RFR also shortens and adds a threaded hose adapter to the end of the common drain header pipe. The common drain header pipe is below the level of detail of the FSAR. This Change did not affect the function of any safety-related systems. This does not affect the current Technical Specifications or the Improved Technical Specifications. This change did not result in an unreviewed safety question.

RFR 19822

Revise drawing to show Valve KAV0278 as an Alternate Air Supply.

To depict valve KAV0278 as an "Alternate Air Supply" required a change to drawing M-22KA01. This drawing is represented in the FSAR as Figure 9.3-1. This RFR does not represent any physical changes to any plant component nor will it change any of the original accident analyses. No unreviewed safety question was created by this change.

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RFR 19847

Revise drawing to show ILRT piping connection points.

RFR 19847 provided an AS-BUILT drawing update for M-22GP01 (FSAR Figure 6.2.6-1). This drawing revision clarified ILRT piping connection points for ILRT equipment (e.g. air compressor, pressure and flow instrumentation) while removing the specific equipment configuration details of this equipment. This drawing revision did not change the test arrangement or type of equipment used for the TYPE A (ILRT) test. Also, this change did not physical change any plant systems or components important to safety. No unreviewed safety question exists for this change.

RFR 19869

Change setpoints for Diesel Generator Building Ventilation System.

Revision A to this RFR evaluated changes to the setpoints in the Diesel Generator Room ventilation system. In general, the setpoint changes will result in lower room temperature during warm weather. As an overall improvement to the room environment, no unreviewed safety question was created. The setpoints are given in the FSAR. In order to avoid possible future FSAR updates, the setpoints given in the FSAR were changed to upper limits of operation, rather than the exact setpoints for system operation.

RFR 19871

Revise plant drawing to reference equipment vendor drawings.

This RFR provided clarification on the installation of the condensate demineralizer sodium analyzers, AKAIT0201 and AKAIT0202 by adding a reference to vendor drawing M-112-00061 to drawing M-22AK01(FSAR Figure 10.4-5). This RFR did not physically change any plant system or component, nor did it change any of the original accident analyses. This change did not create an unreviewed safety question.

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RFR 19875

Revise setpoint and setpoint methodology for 3 process radiation monitors.

This RFR changed the Alert alarm setpoints and the method for controlling the Alert alarm setpoint for process radiation monitors BMRE0025, GERE0092, and SJRE0002. These alarms provide no controlling functions or safety related indications or annunciations. This change did not impact any existing safety analysis and did not create the possibility of any accidents or malfunctions that were not already analyzed in the FSAR. This change did not create an unreviewed safety question.

Ref: FSAR CN 99-047

RFR 19913

Revise FSAR description of Load Loss indicator, C-7.

RFR 19913 approved the correction to FSAR Figure 7.2-1 sheet 10 and the description of Load Loss indicator, C-7. The text and drawing correction did not create a challenge to any plant system important to safety or create any accident scenarios not previously analyzed in the FSAR. This change did not constitute an unreviewed safety question.

Ref: FSAR CN 99-037

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RFR 19933

Revise TSI #32 to add mode 3 protective requirements.

A concern was identified in SOS 99-1227 where the Technical Specifications are not consistent with the FSAR design bases. The reactor trip function that is credited in the FSAR Chapter 15 analysis of record is not required by the Technical Specifications to be operable in the Mode in which the event is assumed to occur. To ensure protection is provided in the event of an uncontrolled rod withdrawal while in Mode 3, a Technical Specification change was initiated to extend the operability and surveillance requirements of the High Neutron Flux Reactor Trip function (low setpoint) to Mode 3. Until this proposed Technical Specification change is approved, administrative controls were established in Technical Specification Interpretation (TSI) #32 to ensure protection is provided in the event of an uncontrolled rod withdrawal while in Mode 3. None of these administrative controls, including the performance of the required surveillance testing while in Mode 3, were found to create an unreviewed safety question.

Ref: TSI #32, Revision 5 and 6

RFR 19963

Revise plant documents to change the position of valve AFV0400 to normally open

This RFR revised drawing M-22AF01, Procedure OTN-AF-00001, and Callaway Equipment list to change the position of valve AFV0400 to normally OPEN. Operation of valve AFV0400 isolates the continuous flow to the cold lab corrosion sampler. This continuous analysis requires that the valve remain open. The above documents show this valve incorrectly as closed. This RFR did not represent any physical changes to any plant component nor will it change any of the original accident analyses. This change did not create an unreviewed safety question.

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RFR 19997

Revise M-22AD02 to change valve positions from normally closed to normally open

This RFR revised M-22AD02 to change the shown normal position of several Condensate System valves from normally closed to normally open. This drawing is represented in the FSAR as Figure 10.4-2. The disposition of this RFR did not represent any physical changes to any plant component nor will it change any of the original accident analyses. This RFR resolution did not result in an unreviewed safety question.

RFR 19998

Evaluate basis for past revise FSAR Section 10.4.4.2

This RFR requested that a basis be established for a change to FSAR Section 10.4.4.2 in Revision OL-1. This RFR evaluation resulted in an editorial change to this section of the FSAR. There was no physical change to the plant, nor any changes to the original accident analysis. As such, this RFR did not represent an unreviewed safety question.

Ref: FSAR CN 99-048

RFR 20026

Evaluate placement of Sealand containers on Diesel Generator Building roof.

This RFR allowed the temporary placement of Sealand type shipping containers on the plant south roof of the Diesel Generator Building. The placement of the containers on the roof structure did not degrade or reduce the ability of the Diesel Generator Building structure to provide its design basis functions. Administrative controls to require the container be removed from the roof prior to threatening weather conditions occurring at the plant assure that this item will not become a tornado generated missile threat to the Diesel Engine Exhaust stacks. The evaluation conclude that this activity did not pose an operability concern and no unreviewed safety question exists.

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RFR 20032

Evaluate switchyard low voltage condition.

RFR 20032, Revision A provides for the analysis and use of non-safety related tie breakers to be closed to support a lower switchyard voltage. This lower voltage is due to the new unregulated market and the abnormally wide spread high temperature being experienced in the Midwest and Southern states. This analysis supports the continued OPERABILITY of the off-site source to the safety related busses. There was no unreviewed safety question created by this evaluation.

RFR 20061

Revise RCS information in FSAR Table 3.2-1.

RFR 20061 identified a number of discrepancies between FSAR SP Table 3.2-1 and the applicable design specifications and licensing documents. These classification discrepancies involved the Quality Group Classification, ANS Safety Class, Quality Assurance, Principal Construction Codes and Standards and Location for a number of components in the Reactor Coolant System (RCS). The change to the RCS components are editorial in nature and have no effect upon the design, function, or method of performing the function of the applicable components. No unreviewed safety question was created by this change.

Ref: FSAR CN 99-056

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RFR 20108

Operability evaluation for snubber on RHR system.

RFR 20108, Revision A, evaluated the failure of snubber EJ02-R012/123A to resist acceleration forces when tested. The snubber failed in such a manner that it stroked in a normal fashion when subjected to thermal movement.

Revision B to this RFR evaluated the degradation of snubber EJ02-R034/123A and its inability to resist acceleration force. The snubber failed in such a manner that it stroked in a normal fashion when subject to thermal movement in its installed configuration.

The failed snubbers did not cause any thermal stresses on the piping beyond those accounted for in the original analysis and did not cause a loss of pipe flexibility. The failure of snubbers EJ02-R012/123A and EJ02-R034/123A did not create an unreviewed safety question.

RFR 20194

Flow through EFHV0059 and EFHV0060 during accident conditions.

This RFR allowed EFHV0059 and EFHV0060 to pass a portion of the ESW system flow rate from the CCW heat exchangers during accident conditions. This will reduce the flow and cavitation across companion valves EFV0058 and EFV0090 when ESW is operating in it SI lineup. This in turn will reduce the piping vibration and the possibility of future fatigue failures. The ESW flow rate to essential loads is not affected by this proposed change.

The repeatability of the change was verified by retest procedures ETP-ZZ-ST020 and ETP-EF-ST021. These procedures operate the ESW system and components within design conditions. No unreviewed safety question exist as a result of this change.

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RFR 20244

Evaluate setpoint pressure for relief valve BG8121.

During Refuel Outage 10, a new relief valve was installed at location BG8121 with a lift setpoint of 155 psig. This is above the original design pressure of 150 psig for the associated portion of the Chemical and Volume Control System (CVCS) piping. Operation of the CVCS system with valve BG8121 set at 155 psi was evaluated and determined to have no detrimental impact on the system, and to not adversely impact the plant's accident analysis. All components, which could potentially see the higher pressure, have design values greater than 155 psig. The CVCS system was evaluated as acceptable considering this change in maximum pressure, and remains capable of performing all its safety functions. No unreviewed safety question was identified by this evaluation.

RFR 20265

Revise the Fire Protection drawings to match the as built configuration.

RFR 20265 made corrections to Fire Protection design drawing to match the as-built configuration. Specifically, the wiring diagram of sprinkler system pressure switches for the reactor building cable penetration area was corrected in the drawings. This change did not make any physical equipment changes to the Fire Protection system. The conclusions of the Fire Hazards Analysis was not affected by this change. No unreviewed safety question exists.

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RFR 20313

Evaluate the use of injectable sealant on AEV0331.

Revision A to this RFR evaluated the use of injectable sealant to stop a body-to-bonnet leak on Steam Generator 'C' Feedwater Check Valve Manual Bypass valve, AEV0331. The injection is for leakage control only and did not adversely affect the pressure boundary of the valve. The Code pressure boundary for the valve was penetrated using Code acceptable methods for unreinforced openings in vessels. The repair cause the normally closed manual valve to be maintained in the closed position.

Revision D allowed the installation of an encapsulation to stop the body-to-bonnet leak on the Main Feedwater Check Valve Bypass Isolation Valve. The design includes a provision to keep the valve in its normally closed position.

There are no safety functions that would require this valve to be in the open position. The repairs did not adversely affect the valve's ASME Code pressure boundary. The evaluations concluded that no unreviewed safety question exists for these changes.

SOS 98-1032

Radioactive contamination of the Auxiliary Boiler

Operation of the auxiliary boiler during 1998 at the identified contamination levels was evaluated and no adverse affect on the safety of the plant or the public were identified. All releases of radioactivity from the auxiliary boiler will be reported in the Annual Radiological Effluent Release Reports. Continued operation of the auxiliary boiler during 1998 did not constitute an unreviewed safety question..

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SOS 98-3924

Evaluate nonconformance material report on stabilized backfill.

SOS 98-3924 documents the use of a stabilized backfill material with unconfined compressive strengths lower than those called for in the specification. The material was found to be acceptable because it was used adjacent to a non-Category I structure and meets the intent of a stable backfill material. The material also did not replace any Category I Structure fill and has no adverse impact on the existing design basis of the facilities, structures or systems. Therefore, it poses no operability concerns and an unreviewed safety question does not exist.

SOS 99-1119

Operability evaluation of post-tensioning system.

During the performance of the 15 year Containment Tendon Surveillance, it was discovered that tendons 40CB and 6AC had grease voids of 6% and 5.7% respectively. This exceeded the 5% acceptance criteria in the FSAR Chapter 16, Section 16.6.1.2.1(d).2. This evaluation concluded that this condition did not adversely affect the post-tensioning system operability or containment building structural integrity. This evaluation also concluded that an unreviewed safety question did not exist.

SOS 99-2143

Repair of damaged core exit Thermocouple Transition Cable.

Installation of heat shrink to prevent moisture intrusion into the damaged cable of Core Exit Thermocouple (CETC) T29 did not result in an unreviewed safety question. The CETC is rendered inoperable, however adequate CETC indication is available to meet the minimum Technical Specification requirements. The heat shrink installation is environmentally qualified and did not impact other CETC in the common port.

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SOS 99-2304

Evaluate nonconformance material report on Incore sump liner plate inspection.

This SOS documented the existence of minor deterioration that exceeded the acceptance criteria of ASME Section XI, Subsection IWE for pressure boundary components of Class MC containments. This evaluation determined that the Incore sump liner plate with this minor deterioration would remain leak tight during a DBA and thus perform its design function. All current accident analysis as documented in the FSAR remains valid and there are no adverse effects on any safety related equipment. No unreviewed safety question exists.

SOS 99-2547

Evaluate nonconformance material report on RHR recirc sump liner plate inspect.

SOS 99-2547 documented the existence of a minor defect that exceeded the acceptance criteria of ASME Section XI, Subsection IWE for pressure boundary components of Class MC containments. This evaluation determined that the RHR recirculation sump liner plate with this minor defect would remain leak tight during a DBA and thus perform its design function. All current accident analysis as documented in the FSAR remains valid and there are no adverse effects on any safety related equipment. No unreviewed safety question exists.

SOS 99-2740

Evaluate nonconformance material report on Cont. sump liner plate inspection.

This SOS documented the existence of minor deterioration that exceeded the acceptance criteria of ASME Section XI, Subsection IWE for pressure boundary components of Class MC containments. This evaluation determined that the containment normal sumps liner plate with this minor deterioration would remain leak tight during a DBA and thus perform its design function. All current accident analysis as documented in the FSAR remains valid and there are no adverse effects on any safety related equipment. No unreviewed safety question exists.

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TM 98-I001

Allow flux mapping to be performed with C incore detector stuck.

This Temporary Modification lifted a wire in the digital input box to simulate that detector C is fully withdrawn. It also lifted a wire in the digital output box to prevent the C 6-path transfer device from rotating, in order to prevent the software from rotating the transfer device while the detector is inserted in it. The C incore detector is stuck a few inches past the withdrawal limit switch, preventing it from being completely withdrawn. The flux mapping software requires that all detectors be withdrawn prior to a flux map being performed. The flux mapping system serves no safety function and has no safety design basis. The safety evaluation concluded that there was no unreviewed safety question created by this temporary modification.

TM 98-I02

Defeat the low-low level switch trip during tank maintenance.

This Temporary Modification renders the Reactor Makeup Water Storage Tank (RMWST) low-low level switch incapable of tripping the Reactor Makeup Water Transfer Pumps (RMWTP). The Temporary Modification was installed due to the need to maintain the RMWTP functional while the RMWST is drained for diaphragm replacement. The demineralized water system was used as alternate suction source for the pumps as allowed by the FSAR and system design. This lineup did not affect the Boric Acid Transfer Pumps and their flowpath to the suction of the CCPs. Installation of this change did not adversely affect any plant system response to all assumed design basis accidents. The installation of this Temporary Modification did not result in an unreviewed safety question.

TM 98-M011

Install pipe patch on the "A" Main Feed Pump seal water return line.

This temporary modification addresses a repair to a pin hole leak in the "a" Main Feedwater Pump shaft seal water return line. A clamp on gasket type patch will be installed over the leak until a permanent repair can be made. The gasket material patch is rated for the operating conditions of the shaft seal water piping. This line and associated equipment is not safety related and has no safety design basis. It was determine that no unreviewed safety question exist for this temporary modification.

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TM 98-M012

Install a temporary level controller on the 1C Feedwater Heater.

This Temporary Modification installed a temporary level controller to allow operating the 1C feedwater heater emergency dump valve at a higher setpoint. This is required since the new tube bundle installed the 1C feedwater heater during Refuel 9 operates with a higher shellside level than the original tube bundle. All components used to install the temporary controller met the temperature and pressure rating of the plant systems it was connected to. The safety evaluation determined that no unreviewed safety question existed for this change.

TM 98-M089

Installation of a temporary bypass line in the intake pumps lube water system.

This temporary modification installed a temporary bypass line from the intake deep well to the outlet isolation valves from FDE2002A. The temporary bypass line provided well water to the suction of the lube water booster pumps which allowed continued operation of the intake pumps. The temporary line was in place while the normal line was repaired. Failure of this temporary line would not have affected any safety-related structure or components. No unreviewed safety question was created by this temporary modification.

TM 99-0002

Provide Plant Service to ATG's Mobile RVR 500 Processing Unit.

This temporary modification allowed a vender skid to be installed to process excess radwaste evaporator bottoms until the inventory is reduced to a manageable level. The Radwaste Volume Reduction (RVR) unit is similar to the unit currently installed at Callaway. All hose and equipment used for this temporary modification meet or exceed the pressure and temperature requirements of the system. No unreviewed safety question was created by this temporary modification.

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TM 99-0003

Install temporary electric power to containment during PG20P outage.

This Temporary modification directed the connection of a temporary power cable between PGDS001 and a temporary power cart to provide power inside containment while the plant remains in Mode 3. This change was necessary to provide lighting and electrical power during the PG20P Motor Control Center (MCC) outage. The seismic event, overcurrent protection of the electric penetration, and train/channel separation concerns were evaluated and it was determined that no unreviewed safety question exists.

TM 99-0004

Replace flex hose on the Security Diesel Generator.

This temporary modification installed a section of hard pipe and a union in place of a flex hose on the security diesel generator. The flex hose was in the fuel return line from the diesel to the fuel oil day tank. This return line flex hose developed a leak at one of the compression fittings. A replacement hose was not available on site so the pipe and union were installed to allow the diesel to be run if required until a replacement hose could be obtained. The security diesel generator is not safety related and does not interface with any safety related equipment. The evaluation concluded that there was no unreviewed safety question.

TM 99-0006

Install 2 temporary frac tanks in the East Radwaste yard.

This temporary modification installed two frac tanks outside of the Radwaste building to provide excess storage capacity for secondary liquid waste evaporator distillate. The tanks were surrounded by a temporary berm which will contain any leakage from the tanks. The installation of this temporary modification will not affect any of the original safety analysis. The review indicated that no unreviewed safety question exists.

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TM 99-0007

Install pipe patch on the "A" Main Feedwater Pump seal water return line.

This temporary modification addressed a repair to a pin hole leak in the "A" Main Feedwater Pump shaft seal water return line. A clamp on gasket type patch will be installed over the leak until a permanent repair can be made. The gasket material patch is rated for the operating conditions of the shaft seal water piping. This line, and associated equipment is not safety related and has no safety design basis. This change did not create an unreviewed safety question.

TM 99-0008

Modify door locks for DSK33021 so that the door is locked from diesel side.

This temporary modification locked door DSK33021 from the diesel side while the "B" diesel train is out of service. This allows the security boundary to be moved to this door and places the "B" diesel generator outside the security area while the train is inoperable. The modification did not affect any safety related systems or components, and there fore did not increase the possibility or magnitude of an accident or malfunction of equipment important to safety. No unreviewed safety question was created by this modification.

TM 99-0009

Modify door locks for DSK33022 so that the door is locked from diesel side.

This temporary modification locked door DSK33022 from the diesel side while the "A" diesel train is out of service. This allows the security boundary to be moved to this door and places the "A" diesel generator outside the security area while the train is inoperable. The modification did not affect any safety related systems or components, and there fore did not increase the possibility or magnitude of an accident or malfunction of equipment important to safety. No unreviewed safety question was created by this modification.

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TM 99-0010

Change the Auxiliary Boiler main gun cooling media arrangement

This temporary modification changed the Auxiliary Boiler main gun cooling source to air at all levels of operation when operating only with the auxiliary gun. The auxiliary boiler is a non-safety related piece of equipment which is not assumed in operation during any design basis event and would have no effect on any safety related system or component during a design basis accident. This change did not create an unreviewed safety question.

TM 99-E001

Provide temporary electric power to the Service Building.

This temporary modification provided temporary power to the Service Building Addition, due to a loss at the normal power supply disconnect switch. Temporary power was supplied from a diesel generator or from the secondary side of XPG133 through temporary power cables to the existing Service Building MCC PPPG147. The Service Building electrical power system is non-safety related and do not affect any safety related equipment. This temporary modification did not result in an unreviewed safety question.

TM 99-M003

Install a temporary air compressor at Valve KAV0104.

Temporary Modification 99-M003 installed a temporary air compressor at valve KAV0104. Valve KAV0104 is labeled as an alternate air supply connection for the plant. This temporary air compressor will serve as a backup to the station air compressor during the time that only one station air compressor is available. The KA system supplies compressed air to the service air system and to the instrument air system. This temporary modification will not change the ability of the air system to perform its function. The safety related portion of the KA system is unaffected by this change. The temporary air compressor will not be located near any safety related equipment. No unreviewed safety question exists for this change.

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TM 99-M004

Install a temporary air compressor at Valve KAV0725.

Temporary Modification 99-M004 installed a temporary air compressor at valve KAV0725. This temporary air compressor will serve as a backup to the station air compressor during the time that only one station air compressor is available. The hose, connections, and blind flange for this temporary modification are rated for this application. The KA system supplies compressed air to the service air system and to the instrument air system. This temporary modification will not change the ability of the air system to perform its function. The safety related portion of the KA system is unaffected by this change. The temporary air compressor will not be located near any safety related equipment. No unreviewed safety question exists for this change.
