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Gentlemen:

ULNRC-03290

DOCKET NUMBER 50-483
CALLAWAY PLANT
10CFR50.59 ANNUAL REPORT SUMMARIES
UNION ELECTRIC APPROVED WRITTEN SAFETY EVALUATIONS
Reference: ULNRC-3021, dated May 18, 1994

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 since those reported in the referenced submittal and through May 11, 1995.

Based on of these evaluations, we have concluded:

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

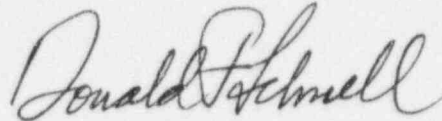
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Therefore, all items reported herein were determined not to involve an unreviewed safety question.

If there are any questions, please contact us.

Very truly yours,

A handwritten signature in cursive script that reads "Donald F. Schnell". The signature is written in dark ink and is positioned above the printed name.

Donald F. Schnell

WBM/sld

Attachment

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Reference/Abbreviation Key

CN ----- FSAR Change Notice.

MODIFICATION PACKAGES (Design Changes)

CMP ----- Callaway Modification Package

EMP ----- Exempt Modification Package

RMP ----- Restricted Modification Package

FCN -----Field Change Notice

OL ----- Technical Specification Change

PROCEDURES

APA ----- Callaway Administrative Procedure

CTP ----- Chemistry Technical Procedure

ESP ----- Engineering Surveillance Procedure

ETP ----- Engineering Technical Procedure

ITP ----- Instruments and Controls Technical Procedure

TOPRP -- Turbine Overspeed Protection Reliability Program

RFR ----- Request for Resolution

Note: FSAR and Technical Specification changes are also reported under 10 CFR 50.71 and 10 CFR 50.90 as applicable.

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CN 93-42

Incorporate Organizational Changes and Simplify FSAR Chapter 13

This change incorporates miscellaneous plant organization changes and simplifies the content of Chapter 13 of the FSAR. No change is required to plant facilities. The change does not reduce the overall base of experience at Callaway Plant nor the commitment to minimum qualifications. This change does not involve an unreviewed safety question.

CN 93-57

Removal of 10 Second Damper Stroke Time from FSAR

This change removes the 10 second isolation time for Control Room Ventilation Isolation dampers upon receipt of a Control Room Ventilation Isolation Signal (CRVIS) from FSAR Chapter 6.4.2.

The removal of the time constraint does not involve an unreviewed safety question. The stroke times are insignificant when compared to the assumed 30 minute operator response time.

CN 93-61

Change FSAR Table 3.11(B)-2 for Rooms 3415 and 3416

Change FSAR Table 3.11(B)-2 for the Class IE HVAC equipment rooms (rooms 3415 & 3416) to show a Design Basis Accident (DBA) temperature of 104 degrees F and a relative humidity of 95% instead of 90 degrees F and 70% relative humidity.

The environment for rooms 3415 and 3416 under a DBA analysis need not be maintained at 90 degrees F at all times. Table 3.11(B)-2 may be revised to the original values listed in the 1984 edition of the FSAR without affecting the operation of the plant, safety of the personnel, or creating a hazard to the public.

CN 93-63

Lithium Chloride Dew Point Sensor Tolerance Change

The lithium chloride dew point sensor tolerance and dew point loop tolerances are relaxed from previous values. The dew point sensor is part of the meteorological tower. The changes do not account for less accurate instrumentation but instead more accurately reflect the true tolerances of existing instrumentation.

These changes have no impact on any Safety Related component or system and have no impact on any accidents evaluated in the FSAR. No unreviewed safety question is created by these changes.

CN 94-04

Concrete Temperatures for the Primary Shield Wall and Reactor Cavity

This FSAR change notice evaluates modifying FSAR sections 3.8.3.4.2, 9.4.6.2.3, and Table 3.11(B)-1 concerning the reactor cavity and cavity cooling system. Specifically, the area directly below the seal ring support will have its maximum surface temperature raised from 150 Degrees F to 240 Degrees F. Also, the design thermal gradient statements are eliminated. These changes have been evaluated for impact on the cavity concrete and no unreviewed safety question is created.

CN 94-05

Remove Requirement to Perform an In-Line PASS Chloride Analysis within 24 Hours

This change removes the requirement to perform an in-line PASS chloride analysis within 24 hours of an accident and allows the analysis to be performed offsite within 4 days as allowed by NUREG 0737. This change will not adversely affect the environment or the public because elevated reactor coolant system chloride is considered a recovery action to ensure long term system integrity and the analysis is not immediately necessary to mitigate the consequences of an accident. No unreviewed safety question is created by this change.

CN 94-12

Fire Protection Qualifications/Responsibilities

This FSAR change notice makes the following changes:

1. State the qualifications of the Fire Protection Engineer.
2. Remove specific designations of personnel who receive delegation from or lend assistance to the Manager, Nuclear Engineering.
3. Place the description of all fire protection requirements under the individual responsible for the onsite fire protection program, the Manager, Nuclear Engineering.

These changes do not create an unreviewed safety question since no responsibilities are removed from the FSAR and responsibilities for specific individuals will remain in control of Callaway Plant administrative procedures. This change is in accordance with the requirements of License Condition C.5.e of facility operating license NPF-30 for Callaway Plant.

CN 94-21

Change to Response to NRC on Valve Operator Maintenance

This change revises the response to NRC question Q270.14 of the FSAR allowing changes in the PM interval for Limitorque valve operators and Motor Control Centers. The changes allow longer or shorter intervals for these preventative maintenance activities where experience has shown a change is justified or necessary. Operation of the equipment will not be adversely affected. This change does not involve an unreviewed safety question.

CN 94-23

Remove Requirement for Various In-Line Capabilities of PASS

The change in the capability of the Callaway Post Accident Sampling System to remove the requirements for in-line analysis of pH, conductivity, oxygen and gross activity will not adversely affect the environment or the public because they are not necessary to ensure system integrity and the analyses are not necessary to mitigate the consequences of an accident. None of these analyses are required by NUREG-0737, Section 18.2.3.1, which addresses Post Accident Sampling Systems. No unreviewed safety question is created by this change.

CN 94-30

Develop Sampling Plan for Safety Related Ionization Detectors

This change notice and associated evaluation develop a sampling plan to test ionization detectors in safety related areas and maintains detection system reliability greater than or equal to the design basis. The sampling plan provides reasonable assurance that the ionization detector failure probability is below the maximum calculated tolerable value. Therefore, no unreviewed safety question is created.

CN 94-35

Allow Intermittent Purge of VCT Gas Purge to the Gaseous Radwaste System

This FSAR Change Notice will allow the periodic operation of the VCT gas purge to the Gaseous Radwaste System (in lieu of the currently described continuous operation). This also affects the Reactor Coolant Drain Tank which is also a source of Hydrogen to the waste gas system. The Callaway Chemistry Department monitors RCS chemistry parameters to ensure hydrogen limits are not exceeded. No unreviewed safety question is created by this change.

CN 94-51

Relocate Sections of the ODCM to FSAR Chapter 16

This FSAR change relocates sections 9.1 and 9.2 of APA-ZZ-01003, the ODCM, to FSAR Chapter 16. This will maintain the same level of administrative controls as envisioned by the NRC when they issued NRC Generic Letter 89-01. None of the programmatic controls of the Technical Specifications are affected. There are no changes to the relocated ODCM requirements. No unreviewed safety question is created by this change.

CN 94-59

Facility Arrangement Description Change

This FSAR Change Notice will change Section 1.2.2--Facility Arrangement of the Standard Plant FSAR. This change involves the removal of the secondary access facility from the list of principal plant structures. The facility does not serve any function related to plant safety nor affect any equipment important to nuclear safety. The facility is not currently used as a protected area access control checkpoint, as stated in the FSAR, and management has decided that the facility is not needed for that function. No unreviewed safety question is created.

CN 95-01

Reanalysis of Increased Feedwater Flow Malfunction Transient

This FSAR Change Notice addresses the deletion of the high-high steam generator level turbine trip response time test (RTT). The turbine trip logic will still remain, but the surveillance for the response time of the high-high turbine trip function will be removed.

Westinghouse has completed a safety analysis in support of the deletion of the RTT requirement. Although the function will no longer be directly credited in safety analysis, its operability (other than RTT) should continue to be monitored. This is necessary to ensure that the current FSAR analyses addressing the loss of normal feedwater event remain bounding.

This evaluation concludes that the deletion of this RTT will not result in an unreviewed safety question.

CN 95-03

FSAR Commitment to Reg. Guide 1.140 Rev. 0

This Change Notice reconciles Reg. Guide 1.140, Rev.1 with Rev. 0. This reconciliation is necessary because charcoal testing and procurement for non-safety related filtration units has been performed in accordance with Revision 1, however, Union Electric is committed to Revision 0 per FSAR Table 9.4-3.

Each area of change made to Reg. Guide 1.140 has not resulted in a change in the conduct of compliance, design, construction, operation, or testing of the affected charcoal filter adsorber units. The changes to the FSAR clarify and upgrade the sections to Reg. Guide 1.140. No unreviewed safety question is created by this activity. (Ref: RFR 15655A).

CMP 89-1028A

Replacement of Alternate Seal Injection Valves BG-HV-8357A & B

This modification and associated field change notices replaces two Target Rock solenoid operated valves (BG-HV-8357A & B) which serve as alternate seal water injection sources. The valves are replaced with motor operated globe valves. This change alleviates chronic maintenance problems with the solenoid operated valves.

All changes to pipe stresses, electrical power sources and operational characteristics have been evaluated with no adverse impact on plant safety. No new accidents are created by the modification and no unreviewed safety question exists.

(Ref: FSAR CN 91-18).

CMP 89-1047A

Add Wet-Pipe Sprinkler System to Auxiliary Feedwater Pipe Chase Area

CMP 89-1047 installs a wet-pipe sprinkler system and 20 foot combustible-free separation zone in the auxiliary feedwater pipe chase area. This in conjunction with enhanced area fire detection as described in CMP 91-1060 will permit removal of the existing Thermolag fire enclosure around valve AL-HV-0032 while preserving safe shutdown capability. The sprinkler system has been designed seismic II/I and serves no safety related function. The potential for flooding has been evaluated and no unreviewed safety question exists. This change is in accordance with the requirements of License Condition C.5.e of facility operating license NPF-30 for Callaway Plant. (Ref: FSAR CN 92-60).

CMP 90-1004A

Relocate the Fuel Building Exhaust Tritium Air Sampler Station

This CMP relocates the Fuel Building exhaust tritium air sampler station. This involves the rerouting of sample tubing and the addition of a receptacle. This evaluation approves the downgrade of the sample line and isolation valve GG-V-0069 from seismic category I to seismic II/I. Due to the size of the line being 3/4 inch instrument tubing and its location of two feet from the 48" x 36" intake louvre of the exhaust duct, there is no need for the tubing to retain its pressure boundary for proper operation of the exhaust duct for normal and emergency operation modes. A complete loss of the line will have no effect. This change does not create an unreviewed safety question.

CMP 90-1008A & B

Removal of Boron Injection Tank

Modification 90-1008 permanently removes from service the Boron Injection Tank and all its associated support equipment. Most of the equipment has not been used for several years. The Boron Injection Tank was not required or assumed in any FSAR analyses. Removing the BIT and its associated components does not result in the creation of an unreviewed safety question.

This modification also bypasses and removes valves EM-HV-8837A & B from service. As a result, the controls for valves EM-HV-8803A & B are to be modified to allow throttling to control the rate of Boron Injection to the RCS to establish cold shutdown conditions. These changes will not cause or result in the violation of plant licensing requirements for operation and safety, nor any evaluation performed per the FSAR. No unreviewed safety question is created by this modification. (Ref: FSAR CN 94-16).

CMP 90-1022A

Add Drain and Vent Valves to Auxiliary Feedwater Pump Drivers

This modification enhances the oil changing and sampling capabilities for the Auxiliary Feedwater Pump Drivers (two motors and one turbine). The minor additions and modifications have no adverse impact on plant safety and is equal to or better than the previous installations. No unreviewed safety question is created by this modification.

CMP 90-1035

Replace Carbon Steel Piping/Components with Stainless in ESW System

This modification provides for the replacement of carbon steel piping in the Essential Service Water System and related systems with stainless steel piping. This modification allows for the ongoing replacement of piping as it is identified and the potential elimination of piping if no useful purpose is served. Field Change Notices are utilized to evaluate/approve the replacement for newly identified portions of the system.

This change will alleviate corrosion related degradation. The pressure boundary piping will be designed and constructed to meet ASME Section III (as applicable) and will enhance the ability of the system to meet its safety functions in the future. No unreviewed safety question is created by implementing this modification.

This modification is being implemented in several parts as new piping areas are identified. Some portions of this modification have been completed. This report serves to generically meet the reporting requirement for this modification. Future parts of this modification will not be reported individually unless the nature of the modification is changed.

CMP 90-1037A

Replace Vent and Drain Blind Flanges with a Pipe Cap or Instrument Iso Valve

This modification approves the use of either a double valve arrangement or single valve and pipe cap to replace single valve/blind flange arrangements throughout several safety related systems in the plant. These changes are necessary to minimize radiation exposure to operators who frequently utilize the connections for system venting/draining. All these connections are normally closed and the flange provides an additional means of leak tightness. The safety classification break is at the first isolation valve and all changes will be downstream. The piping stresses will not be adversely affected, therefore, this modification does not create an unreviewed safety question.

This modification is being implemented in several parts as new piping areas are identified. Some portions of this modification have been completed. This report serves to generically meet the reporting requirement for this modification. Future parts of this modification will not be reported individually unless the nature of the modification is changed.

CMP 90-1041A

Removal of Diesel Generator Air Intake Filter Differential Pressure Switches

This modification removes the diesel generator intake filter differential pressure alarm switches and blanks out the associated annunciators. The switches only perform an alarm function and do not reset properly which causes annunciators to be constantly "in" when the D/G is shutdown. A pressure indicator is available to sense the same pressure and can be read by the Operations Department.

The safety related pressure boundary of the process tubing will be maintained after the switches are removed by plugging the tubing at the point of disconnection. Operators take hourly logs of the intake air pressure per procedure OTN-NE-00001, Standby Diesel Generation System. The switch removal will not create the possibility of an accident or malfunction different to those previously evaluated in the FSAR. The D/G will still perform as required to meet accident analysis assumptions in the FSAR. No unreviewed safety question is created by this modification. (Ref: FSAR CN 94-18).

CMP 90-1044A

Retire FBG02C Demineralizer in Place

This modification retires the "C" Boron Thermal Regeneration System (BTRS) Demineralizer in place and isolates it from remaining portions of the BTRS. The portions of the system that are not in service will be drained and associated resin will be removed. Therefore, the probability of a radioactive leak is not increased. No unreviewed safety question is created by retiring demineralizer FBG02C in place.

CMP 91-1004A

Replace ESW Containment Isolation Valves with Stainless Steel Valves

This modification replaces carbon steel butterfly containment isolation valves with stainless steel butterfly valves. The valves provide for containment isolation of the ESW system. During an accident, these valves receive an SIS to open, ensuring ESW flow to the containment coolers. Upon detection of a leak, they are required to isolate the affected train, ensuring containment integrity.

The carbon steel valves have had a history of undesirable seat leakage from refueling outage to outage. This modification replaces eight 14" valves and two 10" valves. The piping will meet ASME Class 2 requirements and maximum containment isolation times are unaffected. FCN-01 of this modification approved the increase in motor size for valves EF-HV-0047 and 48 from 2 ft-lb to 5 ft-lb. The design ratings of the affected valves, actuators, and piping will not be exceeded. The modification does not alter any system line-ups nor change the method of valve operations. No unreviewed safety question exists. (Ref: FSAR CN 92-61).

CMP 91-1031A

Move Emergency Diesel Fuel Oil Storage Tank Level Indicating Transmitters

The emergency diesel fuel oil storage tank level indicating transmitters are being moved from the concrete vault for their respective tanks to inside their respective diesel generator rooms. Since the modification only involves moving the transmitters, their function and accuracy are not affected. Also, they will be located such that structural failure during a seismic event will not cause damage to any other equipment. Therefore, this modification does not involve an unreviewed safety question.

CMP 91-1041

Construction of Outage Maintenance Facility

This modification evaluates and approves the construction of the new Outage Maintenance Facility relative to:

1. Connection of the OMF's fire alarm system to the plant fire alarm system.
2. Changes to the site grading and drainage at the area of the OMF.

RFR 10416A evaluated building siding and fastener requirements relative to UHS pond impact and ESW pump bay blockage. This modification does not affect any safety related equipment and does not create an unreviewed safety question. (Ref: FSAR CN 92-34).

CMP 91-1042A

Installation of Isolation Valves in BTRS Chiller Cooling Lines

This modification approves the installation of two six inch stainless steel butterfly valves in the Service Water supply and return lines to the BTRS chiller. Additionally, two one inch stainless steel gate valves will be installed near the butterfly valves to provide a drain path.

This modification will allow the Service Water piping to be placed in a dry lay-up condition when it is out of service for extended periods to minimize corrosion. This modification has been evaluated and verified to have no adverse impact to the plant. No unreviewed safety question exists.

CMP 91-1045A

Change Logic Inputs for the BTRS Handswitch Indicating Lights

This modification will change the 7300 Process System status light and computer point logic for the Boron Thermal Regeneration System (BTRS). This modification will enable plant operators to verify that all BTRS valves have stroked to their proper position for all modes of operation.

This modification is non-safety related and will result in no unreviewed safety question.

CMP 91-1053A

Extend the Containment Mini-purge Test Connections

This modification will reroute the test connections used for leak rate testing to a more accessible location. This will allow the surveillances to be performed without having to erect scaffolding. The portions of the piping on which the test connections are attached are non-safety related and not associated with any accident analysis. No unreviewed safety question is created by implementing this modification.

CMP 91-1060A

Add Fire Zone Detectors in Several Power Block Areas

This modification adds automatic fire detection to room 1207. In conjunction with CMP 89-1047 Rev. A, which adds a wet-pipe sprinkler system to rooms 1206 and 1207, these changes allow removal of the 3-hour fire wrap on AL-HV-0032 as detailed in Union Electric Letter ULNRC-2955. This modification also splits the existing fire zone into two zones. Splitting the zone allows addition of the new detectors and enhances the response to fire detector alarms. (Room 1207 contains the suction line piping and valves for the turbine-driven auxiliary feedwater pump. Room 1206 contains the suction line piping and valves for both motor-driven auxiliary feedwater pumps. Room 1206 already has automatic fire detection.)

The addition of the fire detectors and wet-pipe sprinkler system plus a 20 foot separation with no intervening combustibles or fire hazards is consistent with 10 CFR Part 50, Appendix R and is an acceptable alternative to the 3-hour fire wrap on AL-HV-0032. This modification does not impact the safety related portion of the fire protection system. No unreviewed safety question is created by this modification. This change is in accordance with the requirements of License Condition C.5.e of facility operating license NPF-30 for Callaway Plant. (Ref: FSAR CN 92-60).

CMP 92-1006A

Removal of Cooling Water Piping for Diesel Air Start Compressor After Coolers

This modification provides for the removal of four motor operated valves in the ESW system which serve the Diesel Generator air start compressor after coolers and the associated piping and hangers. The equipment will be physically isolated electrically and mechanically from affected systems. The cooling lines are not necessary for plant safety and no unreviewed safety question exists.

(Ref: FSAR CN 94-07).

CMP 92-1010

Replace the PDP with New Normal Charging Pump

CMP 92-1010 replaces the Positive Displacement Charging Pump in the Chemical and Volume Control System with a 4160 Volt Motor Operated centrifugal pump referred to as the Normal Charging Pump. The new pump would be powered from a non-safety related source and would be the normal source of charging for the RCS. The modification affects several systems including the Chemical and Volume Control System (CVCS), Component Cooling Water System (CCW), Demineralized Water, Compressed Air, 4.16 kV System (non-class IE), 480 V System (non-class IE), Plant Annunciator System, and the Main Control Board. The modification and associated evaluations were approved in steps. The major steps and associated evaluations are summarized as follows:

Revision A

Revision A of CMP 92-1010 approves removal of the Positive Displacement Pump and various piping and electrical prework such as cutting and capping cooling water lines, suction and discharge piping, and instrument air lines. The electrical portion includes cable routing and terminations required to convert the existing 480 V source for the PDP to a 4.16 kV source for the NCP. The piping modifications approved by this revision are in accordance with the ASME Code and the original Bechtel pipe classifications. The electrical portion of this revision meets existing design requirements in order to maintain plant safety. The modifications approved by Revision A of this modification will not cause any unanalyzed event, create a reduction in safety, nor impact the ability of existing plant systems to perform their safety functions.

Revision B

Revision B of CMP 92-1010 approved additional prework which did not impact plant safety (i.e., conduit installation, modification of non-safety related bus work).

Revision C

Revision C of CMP 92-1010 approves the installation of the new Normal Charging Pump and associated appurtenances. The NCP will be built to the same design margins as the PDP, will be an ASME Section III, Class 2, Seismic Category I component, and will be mounted on the PDP foundation with new anchor bolts. This revision also approves the installation of a hollow metal door to replace the concrete masonry unit block wall. Field Change Notice 17 adds a second check valve to the pump discharge line to guard against the single active failure of the existing discharge check valve.

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The modified piping has been analyzed for stress concerns and no changes to piping classification nor size is necessary. The pipe whip analysis of FSAR Table 3.6-4 will not be adversely affected, nor is the flooding analysis for Room 1115. The new pump will not require cooling water from the CCW System. The new NCP will receive a non-safety related trip on an SI signal, thus reducing flow to the RCS and through the recirculation line through the seal water heat exchanger. The trip will stop the pump upon an SI signal and allow the pump to be restarted 5 seconds after the SI if it is required.

There is no adverse impact on the CVCS as a result of installing the NCP as demonstrated by flow models of the system (Ref: Calc BG-36). The single active failure of check valves in the discharge lines for the CCP's does not adversely affect the functioning of the ECCS with the NCP still operating. The effects on the RCP seals has also been evaluated. The room cooler will be replaced with a larger unit as part of this modification and will keep the room temperatures at values given in the FSAR. The changes incorporated by this modification comply with Section 12.3.1 of the FSAR for radiation protection design features.

A Safety Evaluation was also performed to examine the retest requirements for implementation of modification package 92-1010. Numerous tests are required to implement the modification. These tests include such tests as SI Trip Tests, motor functional tests, flow control tests, MOVATS tests, annunciator tests, and pump performance tests. The testing will not disable safety related equipment. Systems tested will be isolated per plant procedures. The work controls placed upon the testing activities will allow for operation of the plant within the operating margins.

Procedure ETP-BG-ST013 was written to gather information on the effects of a loss of Component Cooling Water (CCW) on the Normal Charging Pump (NCP). The NCP is not directly cooled by CCW, however, the recirculation flow is routed through the Seal Water Heat Exchanger which utilizes CCW as the cooling medium. This test will be performed during Mode 6 with the Reactor Vessel head completely unbolted or with the core offloaded and the vessel head off (and all RCPs secured). CCW will be isolated to the seal water heat exchanger which is not a safety related load off of CCW. The test will not impact the RHR system and will not impact the ECCS. No unreviewed safety question is created by this test.

REFERENCES

CMP 92-1010 Revisions A, B, and C CMP 92-1010 FCNs 12, 17, and 23
Procedure ETP-BG-ST013 Rev. 0 Procedure ETP-BG-ST012 Rev. 0
FSAR Change Notice 93-07

CMP 92-1014A

Install New Swing Battery Chargers in the 125 VDC Electrical System (OL 1158)

This modification installs two swing battery chargers into the Class 1E 125 VDC system. The swing chargers will be connected to the existing NK system using electrically operated manually controlled transfer switches designed to prevent the interconnecting of the separate NK busses.

The function of the original NK system will be enhanced by the addition of the new swing battery chargers, thus allowing greater freedom of system alignment during power operation. The new chargers will meet or exceed all operational and qualification specifications of the originals. The use of the swing battery chargers requires manual operator action and will be controlled by Operations Department Procedures. In addition to the administrative controls provided procedurally, several levels of electrical interlock are provided to assure the proper system operation in accordance with Callaway's operating license requirements. Operating License Amendment 99 approved associated changes to the Technical Specifications on April 18, 1995. No unreviewed safety question is created by this modification. (Ref: FSAR CN 94-13).

CMP 92-1022A

Spent Fuel Pool Miscellaneous Parts Container

CMP 92-1022 and associated FCN's allow the placement of a parts container in the Cask Loading Pit inside the Fuel Building. The stainless steel container is to rest on the floor of the pit. The top of the new container will be below the new fuel elevator when the elevator is in its lowest position. Should the container tip over in a seismic event, it will not strike any safety related equipment. The container's impact load on the pit floor is insignificant. The safety evaluation concluded that the placement of the container will not affect equipment operability. Placement of the container in the cask loading pit does not involve an unreviewed safety question. (Ref: FSAR CN 92-35).

CMP 92-1027A

Install Magnetic Ball Check Valves into Flux Mapping System

This modification installed magnetic ball check valves above each of the 58 incore flux thimbles. These non-safety related valves are located at the seal table between the 15-path transfer device and the high pressure connection between the thimbles and the guide conduit. If a leak were to occur in one of the thimbles, the check valve would isolate the leak thus minimizing damage to the flux mapping system and minimizing radiation hazards to personnel.

Tests have been performed to verify that the addition of these valves will not impact the flux mapping system. Additionally, the added weight of these non-safety related valves has been evaluated for its impact on the safetyrelated flux thimbles and guide tubes. No design limits are exceeded with these valves installed. The check valves simply provide a second, non-safety related barrier between the Reactor Coolant System and the Containment atmosphere. No unreviewed safety question is created by implementing this modification. (Ref. FSAR CN 92-46).

CMP 92-1028A

LEMO Connector Replacement

CMP 92-1028 replaces the Core Exit Thermocouple (CET) LEMO connector and extension cable to the reference junction boxes. Since the CET system configuration and redundancy is maintained and the CET temperature indications are not assumed in the FSAR Chapter 15.0 accident analyses, no unreviewed safety question exists. (Ref: FSAR CN 93-14).

CMP 93-1002A

Installation of Steam Traps in Main Steam Condensate Drains

This modification revises the normal position of the AB-LV-0007, 8, 9, & 10 to normally open to reduce maintenance costs on these valves. Steam traps downstream collect and drain the main steam drip legs. This modification does not affect the probability of a MSLB or faulted S/G scenario. The piping downstream is non-safety related and installed per ANSI B31.1. The valves will maintain their ability to close during a faulted S/G or MSLB and will no longer be required to control condensate in the main steam lines. The modification has been evaluated and verified to have no adverse impact on nuclear safety.

CMP 93-1010A

Provide Steel Fire Barriers Over Encapsulation Domes

This modification installs steel checker plate fire barriers over the encapsulated RHR and Containment Spray valves in the Auxiliary Building. These barriers replace existing Thermo-Lag. These barriers have been shown to be adequate for the fire hazard in the area.

The plate design and installation have been reviewed for seismic II/I concerns and no unreviewed safety question will be created by this modification. This change is in accordance with the requirements of License Condition C.5.e of facility operating license NPF-30 for Callaway Plant.

CMP 93-1014A

Safety Related Inverter Replacement

This modification replaces the existing Class IE 120 VAC inverters and adds a standby regulated 120 VAC source and associated automatic transfer switches to form a complete inverter/uninterruptible power supply (UPS). The automatic transfer function will transfer the 120 VAC load to the standby source in the event of inverter or DC system failure without interruption of the power supply. The new inverter/UPS units will serve an identical function to the original inverters except for the automatic transfer function.

This modification was evaluated for its impact on annunciators, electrical efficiency and HVAC heat load, cable separation, Appendix R analysis, battery loading for SBO analysis, seismic and environmental qualification, and 480 VAC cable and conduit design. Based on these evaluations, no unreviewed safety question is created by this modification. FSAR Change Notice 94-26 incorporated this modification into the FSAR.

CMP 93-1026A

Install In-Mast Sipping System on the Refueling Machine HKE01

Install an in-mast sipping system on the Refueling Machine which includes tubing, clamps, nozzles, deflectors, and controls. The sipping system is designed to detect failed fuel rods during core offload by injecting air through nozzles located in the bottom of the stationary mast. As fission gases escape the failed rods, they are stripped from the external surfaces of the cladding by the rising air bubbles. Any such fission gases are routed to a detector in the system control cabinet located on the refueling machine bridge.

These changes affect no other structures, systems, or components. The Refuel Machine is classified as non safety-related, seismic category II/I and the installation of the sipping system will not change its seismic classification. It is completely independent of the fuel assembly lifting equipment on the refueling machine, therefore, failure of the in-mast sipping system would not result in the possibility of a dropped fuel assembly accident.

Procedure ETP-KE-00002, Rev. 0, Setup, Checkout, and Operation of the On-Line Sipping System was written to govern sipping operations. A Safety Evaluation of system operation concluded that the bubbling of air through a fuel assembly will not result in an increase in reactivity and that the evaluations for the modification are also applicable to operation of the system.

Since this modification will not cause a reduction in safety or any unanalyzed event, no unreviewed safety question exists.
(Ref: FSAR CN 93-40).

CMP 93-1034A

Modify the Guide Latch Brackets for 72 Horizontal Fire Dampers

This modification trims a portion of galvanized sheet steel from the upper edge of the guide/latch brackets for horizontal fire dampers.

This modification does not change the form, fit, or function of the fire dampers and does not impact nuclear safety or the Fire Protection Program. No unreviewed safety question is created by this change. This change is in accordance with the requirements of License Condition C.5.e of facility operating license NPF-30 for Callaway Plant.
(Ref: FSAR CN 93-33).

CMP 93-1036A

Install Cross-tie from Charging to Letdown

This modification adds a normally closed cross-tie line between the normal charging and letdown lines in the Chemical and Volume Control System. The cross-tie line is designed to the original CVCS requirements, and satisfies all safety design bases as identified in the FSAR. No unreviewed safety question is created by this modification.

(Ref: FSAR CN 94-27).

CMP 93-1055A

Revise RHR System Hangers EJ01-R502 and EJ02-R504

This modification changes two hangers in the RHR system. The hangers will remain ASME Code hangers and will be modified to alleviate high frequency stress cracking. The hanger changes do not affect the operation of the RHR system. No unreviewed safety question is created by this modification.

CMP 94-1001A

Steam Generator Hydraulic Snubber Reduction

This modification performs the following:

1. Converts the out-bound steam generator hydraulic snubbers to one-way limit stops and disables the in-bound steam generator hydraulic snubbers. All hydraulic snubbers will have their hydraulic fluid removed to allow free movement.
2. Several snubbers on the main steam and feedwater lines are eliminated or replaced with struts.

Calculations show that system stresses will remain within code allowable limits. This was facilitated by performing a leak before break analysis on the main RCS Loops (Ref: WCAP-14059). The consequences of a pipe break will not be changed. This modification does not create any new types of malfunctions. No unreviewed safety question is created by this modification.

REFERENCES

EDP-ZZ-01007 Rev. 5
FSAR Change Notice 94-54

CMP 94-1006A

Change Limitorque Operator Gear Ratio for RHR Suction Isolation Valves

This modification changes the worm and worm gears, the limit switch control, and the thermal overloads for the RHR suction isolation valves (BB-PV-8702A & B and EJ-HV-8701A & B). This modification also improves the valves' interlock performance for valves EJ-HV-8804A/B and EJ-HV-8811A/B.

These changes increase the valve actuator's rating and ability to open with reduced voltage. The control switches will be set by MOVATS testing to prevent damage to the valve or valve operator. The change will not affect the valve pressure boundary, valve function, or function of the interlocks. This modification will not cause any unanalyzed event or a reduction in safety. No unreviewed safety question is created by this modification.

CMP 94-1010A

Replace Flanged Drain Connections with Pipe Caps

This modification replaces blind flanges on the steam generator channel head drains (belly drains) with pipe cap assemblies. It also replaces the flange on the Reactor Coolant Pump #1 seal leakoff common header drain with a second isolation valve and pipe cap. The changes occur downstream of the ASME Code Class 2 piping and the ANSI B31.1 non-safety related piping. The modification will not modify any safety related piping configuration. The effects on the ASME Class 2 piping have been evaluated and found acceptable with ASME Code and FSAR stress requirements. No unreviewed safety question is created by this modification.

CMP 94-1014A

Control Rod Drive Mechanism Timing Change

This modification implements a new current order timing in the Solid State Rod Control System (SSRCS). The evaluation also covers the implementation of a new current order timing surveillance test. The modifications to the SSRCS to implement current order timing changes will not adversely impact safety related components and will not change the plant safety analysis. Additionally, the repositioning of the PC board diodes will not adversely impact the plant protection system, since the changes only apply to the electrical circuitry of plant control systems.

The acceptance testing establishes precautions and limitations for conditions during the test. The reactor should remain subcritical during the test and only one bank of rods will be withdrawn at a time. Because the reactor is subcritical during the test with enough negative reactivity to enable a complete bank to be fully withdrawn, an asymmetric rod movement will not create any safety concerns. Only one bank will be moved at a time. No overlap testing will be conducted.

Successful testing of a similar timing change has been performed at the R. E. Ginna Station. The changes and associated acceptance testing do not involve an unreviewed safety question.

CMP 94-1017A

Add Drain Connection to ESW Pipe

This modification will install a 1" NPT drain at a leak identified in an eight inch ESW pipe providing an alternate suction source for the Auxiliary Feedwater Pumps. The branch connection will be an ASME Code branch connection.

Since this design will meet 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 will not impede the system's ability to meet Technical Specification requirements. No unreviewed safety question is created by implementing this modification.

CMP 94-1018A

Remove Boron Injection Tank Relief Valve

This modification approves permanent removal of the Boron Injection Tank (BIT) relief valve. The valve has been leaking causing the identified RCS leak rate to be excessive. The requirement for BIT heaters and heat tracing has been removed, thus eliminating the potential for overpressurization of the BIT above its design pressure. The BIT relief valve may be removed since the ASME Code does not require a relief valve if there is no credible source of overpressurization.

Therefore, the removal of the BIT relief valve does not introduce an unreviewed safety question.

Note: An evaluation to approve gagging of the BIT relief valve was performed under RFR 15100A to attempt to alleviate the identified RCS leakage concern. Approval for gagging is based on the same reasons cited in this CMP. (Ref: FSAR CN 94-16).

CMP 94-1023A

Install a Pipe Nipple/Cap Over Pin Hole Leak in ESW System

This modification installs a 1" NPT nipple and cap at the leak identified in a 30" ESW pipe. The branch connection is an ASME Code branch connection and the existing leak is eliminated by drilling out existing defects after the nipple is installed. An NPT cap is then installed and seal welded. This change is in accordance with the requirements of License Condition C.5.e of facility operating license NPF-30 for Callaway Plant. Since this design meets the original design codes of the system, this does not result in an unreviewed safety question.

CMP 95-1004A

Revise Power Supply Circuit in SSPS

This modification adds provisions to assure that circuit faults in non-seismic Category 1 areas do not have an adverse impact on the Solid State Protection System. The circuits of specific concern are those from the position switches on the main turbine stop valves (Switches AC-ZS-0043C, 44C, 45C, and 46C).

The evaluations and changes are a result of Union Electric's review of USNRC Information Notice 95-10, "Potential Loss of Automatic Safety Features Actuation." This evaluation also addresses an error in the FSAR in which it was stated that the contacts for the turbine stop valve position switches are in the ground side of the trip relay coils.

This modification adds fuses in the SSPS cabinets which will help prevent faults in the Turbine Building from degrading SSPS functions. The associated FSAR change notice (95-014) incorporates the changes for this modification and corrects the descriptive error in the FSAR. These changes represent an improvement in reliability and do not create the possibility of any new accidents. No unreviewed safety question is created.

RFR 15757A documents Union Electric's operability evaluation for NRC Information Notice 95-10. The RFR concluded that no unreviewed safety questions were raised and that the existing configuration is bounded by existing safety analyses. The RFR confirms the acceptability of the as-built configuration of the position switch contacts and identifies the FSAR error previously discussed. (Ref: FSAR CN 95-14).

EMP 92-3017A

Remove Level Switches/Change HP Feedwater Heater Alarm Source

EMP 92-3017 changes the method used for generating BOP computer alarms due to high or low levels in the high pressure feedwater heaters. There are no safety related components associated with the modification and no unreviewed safety question is created by the modification.

EMP 93-3004A

Abandon Switchyard Fire Hydrants

This modification removes two fire hydrants from the switchyard area. No nuclear safety issues are involved. The equipment is located more than 500 feet from any safe shutdown equipment or building containing safe shutdown equipment. The consequences of a fire on the safeguards transformers will not be increased since adequate fire protection will still exist. Also, a fire in this area would not affect any other equipment since there is not any other combustible material in the switchyard. No unreviewed safety question is introduced by this modification.

(Ref: FSAR CN 93-21).

RMP 89-2002

Replaced Nonsafety Carbon Steel Piping (small bore) with Stainless

RMP 89-2002 replaces non-safety related carbon steel piping (small bore) which was clogged with a buildup of corrosion products. The pipes involved transport raw water throughout the plant and are non-safety related. The replacement piping is stainless steel and is an upgrade over the original material. The stainless steel piping material is not susceptible to the buildup of ferritic corrosion products, thus eliminating the continuing problem of reduced flow area. Implementation of this modification does not involve an unreviewed safety question.

This modification is being implemented in several parts as new piping areas are identified. Modification CMP 90-1035 approved a similar modification to safety related piping. Some portions of this modification have been completed. This report serves to generically meet the reporting requirement for this modification. Future parts of this modification will not be reported individually unless the scope or nature of the modification is changed.

RMP 91-2009A

Add Low Point Drain to Moisture Separator Relief Valve Discharge Line

This modification represents a change to the secondary, non-safety related side of the plant. The addition of a 1" drain will eliminate water hammering if the associated relief valve lifts. The failure of this piping would not impact the integrity of safety related systems or other non-safety related systems used to mitigate an accident or its consequences. No unreviewed safety question is created by this modification.

RMP 91-2013A

Redirect Vent Lines from Ammonia and Hydrazine Tanks

This modification will add containment drums to chemical addition skid tank vents to prevent the spill of hazardous chemicals on the ground. The lines being modified are the vents from the hydrazine and ammonia tanks located in the Turbine Building.

The vent lines do not interface with any safety related system, component, or structure and no unreviewed safety question is created by this modification.

RMP 91-2015A

Resolve the Condensate Pump Shaft Seal Water Return Hose Failure Problem

This modification provides an improvement to the reliability of the condensate pumps seal water system by adding a lockable throttling valve downstream of the condensate pump seal.

The condensate pumps do not have any safety design bases and this change involves only commercial concerns. No unreviewed safety question is created by this modification.

RMP 91-2021A

Change Circ Water Sample Valve from Carbon Steel Globe to Stainless Gate

This modification package approves the replacement of the Circulating Water to Low Pressure Condenser sample isolation valve (DA-V-0185-a carbon steel globe valve) with a stainless steel gate valve. In addition, this modification approves the installation of a blowdown line for cleaning the sample isolation valve. The current valve is prone to plugging.

This change is to a non-safety related system which is not referenced within the FSAR as being associated with any accident analysis. No credit is taken for operation of the circulating water system in an accident situation. This change does not result in any adverse system interactions nor any unanalyzed modes of operation. No unreviewed safety question is created by implementing this modification.

RMP 92-2011A

Modify Main Turbine Exhaust Hood Spray

This modification changes the main turbine exhaust hood spray to provide uniform cooling to all three low pressure turbines. This is accomplished by adding throttling valves and pressure indicating gages to each end of the low pressure turbines. In addition, one temperature transmitter will be relocated to read the higher temperatures that exist on the opposite end of the LP turbine.

These changes will allow a balanced flow of spray water to all three LP turbines. The exhaust hood spray system has no safety design bases. This modification does not adversely impact the operation of the low pressure turbines. No unreviewed safety question is created by implementing this modification.

RMP 92-2016A

Modify Heater Drain Tank Startup Level Control

This modification will enlarge the startup drain line to the low pressure condenser to maintain level in the heater drain tank during plant startups to minimize the occurrence of water hammer to the tank, #5 heaters and piping. It will change valve AF-HV-0210 from a motor operated valve to an air operated globe valve with a control signal input from the level controller AF-LC-0074 to maintain level in the heater drain tank.

There is no safety design basis associated with the changes. The modification will not impact any safety related components or systems. No unreviewed safety questions are created by this modification.

RMP 92-2017A

Connect Demin Degassifier to Main Condenser Suction

This modification will provide for the installation of piping connecting the Demin Degassifier Tank to the Main condenser vacuum pump discharge header. This will allow the use of the condenser as an alternative means of maintaining a vacuum in the degassifier tank.

Although this modification involves an alternative vacuum source, the discharge path is still monitored by radiation element RE-92. No unreviewed safety question exists.

(Ref: FSAR CN 93-43).

RMP 93-2001

Change Turbine Trip Logic for Exhaust Hood Temperatures

This modification changes the logic of the turbine trip initiated from high temperature on any low pressure turbine exhaust hood. The logic is changed from one-out-of-one on any of the three exhaust hoods to two-out-of-two on any hood. Also, the high temperature alarm logic is changed from one-out-of-three to one-out-of-six. No alarm or trip setpoints are changed. No unreviewed safety question exists.

RMP 93-2010

Upgrade of Temporary Power Loop

This modification connects electrical site load which was previously supplied by an outside utility to the plant on-site electrical distribution system. The system will be a 13.8 kV, three phase looped underground system which will be fed from existing site feeder cables. This portion of the plant electrical system is non-class IE.

FCN 3 of this modification evaluated temporarily energizing the "300" series power loop from the ringbus without the current limiting fuses called for in the original modification. FCN 3 also approved supplying the "300" series loop from breaker PA0209 during modes 5 or 6 without current limiting fuses.

FCN-04 of the modification approved the elimination of the redundant fusing in the "300" series loop feeder cables downstream of the current limiting fused disconnect switches. The sectionalizing short circuit protection for the "300" loop will be provided by the current limiting fuses for multiphase faults with backup protection provided by either the ringbus breaker or PA0209.

The effects on loadflow and voltage drop analysis of the overall plant electrical system have been calculated and found acceptable. The proposed configuration is consistent with the current design of the "100" and "200" series site feeders. No unreviewed safety question is created by this modification.

(Ref: FSAR CN 93-20).

RMP 93-2016A

Install Bypass Lines around Low Pressure Heater Inlet Isolation Valves

This modification will install bypass lines around the low pressure heater inlet isolation valves. Each bypass will consist of two isolation valves, one gate for upstream isolation, and one globe for downstream throttling. This will allow filling the low pressure heater strings without operating the 14 inch motor operated inlet isolation gate valves which are physically difficult to operate against a high differential pressure.

This portion of the condensate and feedwater system is non-safety related and is not referenced in the FSAR as being associated with any accident analysis. This modification will not increase the consequence or probability of occurrence of an accident or malfunction of equipment important to safety previously evaluated in the FSAR. No unreviewed safety question will be created by implementing this modification.

RMP 93-2020A

Replace Main Feedwater Pump Hydraulic Control Pressure Switches

RMP 93-2020 will replace low pressure switches which provide control functions upon a Main Feedwater Pump trip. Pressure switch PS-10 will cause closure of the turbine control valves while pressure switch PS-16 will cause closure of the MFP discharge isolation valve and will illuminate an annunciator (MFP TRIP). The current switches are obsolete. The new switches will utilize a 2-out-of-2 logic actuation and will be Static O-Ring Dual Hi-Lo pressure switch. The 2-out-of-2 logic actuation wiring will resolve single failure/inadvertant switch actuation concern for a ruptured or leaking diaphragm. The control functions for the switches will remain unchanged.

Main Feedwater pump failures or valve malfunctions are assumed causes for loss of normal feedwater transients. The equipment is not required to function to provide protection or mitigate the consequences of an accident. The change to 2-out-of-2 logic change will reduce the probability of loss of normal feedwater transients. No unreviewed safety question is created by this modification.

RMP 93-2025A

Add Sight Glasses to MSR Drain Tanks and 1st & 2nd Stage Reheater Drain Tanks

This modification will add magnetic site glasses and externally mounted level switches to the MSR Drain Tanks and the first and second stage reheater drain tanks. The existing level switches and isolation valves have experienced a high failure rate.

There is no safety design basis associated with these changes. There are no changes to any controllers or turbine trip functions. No unreviewed safety question is created by these changes.

RMP 94-2003A

Cavity Cooling Fans Isolation Dampers

This design change adds isolation dampers between the cavity cooling fans and their common plenum. It adds an additional load to the safety related support structure which was evaluated and found to be acceptable. No unreviewed safety question is created by this modification.

(Ref: FSAR CN 94-25).

RMP 94-2006

Replace Auxiliary Boiler Fuel Oil Supply & Return Piping

This modification installs a new fuel oil supply and return line to the Auxiliary Boiler. This modification also involves the penetration of a fire rated wall and the addition of fuel oil piping to the turbine building. The piping is not routed in any area where a failure of the line would jeopardize the operation of any equipment necessary for the safe shutdown of the plant. Therefore, the probability or consequences of a malfunction of equipment important to safety is unaffected by this modification. This system has no impact on any equipment governed by the technical specifications. A fire protection review has been performed for this modification and it has been determined that this change does not adversely affect the Callaway fire protection program. No unreviewed safety question is created by implementing this modification.

RMP 94-2009A

Low Pressure Feedwater 2B Tube Bundle Replacement

This modification replaces the 2B Low Pressure Feedwater Heater tube bundle with a new U-tube design. The new design replaces a straight tube design which had fixed tube sheets on both ends. The existing design had inherent design concerns which lead to several material failure mechanisms within the heater.

This modification does not affect or interface with any safety-related components or systems and does not have any safety design basis associated with the portions of systems affected by the modification. No unreviewed safety question is created by this modification.

OL 1104

Miscellaneous Technical Specification Clarifications

This amendment revises various Technical Specifications to reflect editorial and typographical changes for consistency and clarity. The changes include trip setpoint corrections, description clarifications, reference updates, and title deletions. Approved by Amendment 86 on December 21, 1993.

OL 1124

Revision to Technical Specification Table 4.3-1

This amendment revises Technical Specification Table 4.3-1, Note 5, to reflect that integral bias curves, rather than detector plateau curves, are used to calibrate the source range instrumentation. Intermediate and Power Range channels will continue to be calibrated using detector plateau curves.

Using the integral bias curve is a more inclusive calibration than the plateau curve and provides the same information, i.e., the high voltage operating point. The change does not affect accident initiators or assumptions and no new accidents are created by the changes being made. No unreviewed safety question is created by this Technical Specification amendment. Approved by Amendment 87 on December 28, 1993.

OL 1125

Title Change from General Manager to Vice President in Technical Specifications

This amendment revises Technical Specification Section 6 to reflect the change in the title "General Manager, Nuclear Operations" to "Vice President, Nuclear Operations."

The change is only in title and no responsibilities have changed. The change has been evaluated and determined to have no adverse impact on the ability of plant personnel to perform their duties. No unreviewed safety question is created by this change. Approved by Amendment 88 on December 28, 1993.

OL 1126

Deletion of Cultural Resources Information from Operating License

This amendment deletes Sections 2.3 and 4.3, "Cultural Resources," of Appendix B, Environmental Protection Plan. The continued implementation of the current Union Electric Cultural Resources Management Plan will be maintained as committed to in a March 29, 1994 letter. Approved by Amendment 90 on July 13, 1994.

OL 1127

Boron Dilution

This amendment revises Technical Specification Table 3.3-1 and 4.3-1, and Bases pages B 2-8 and B 3/4 4-1. The changes reflect the reanalysis of the boron dilution transient for shutdown modes to address non-conservatism in the previous event analysis. Approved by Amendment 94 on March 7, 1995. This change was incorporated into the FSAR by FSAR Change Notice 92-06.

OL 1130

Mode Applicability for Load Sequencers

This amendment revises Technical Specification 3.3.2 and 3/4.8.1 to add Mode 5 and 6 applicability for operability of the load sequencer and supplying 4 kV bus undervoltage circuits. Approved by Amendment 85 on December 9, 1993.

OL 1136

Radiation Protection Manager

This amendment changes Technical Specification 6.3.1.2 to allow either the Health Physics Superintendent or the Health Physics, Operations Supervisor to be designated as the Radiation Protection Manager (RPM). Approved by Amendment 92 on September 6, 1994.

OL 1143

Extend Reporting Period of Radioactive Effluent Release Report to Annually

This Technical Specification change extends the reporting period of the Semiannual Radioactive Effluent Release Report from semiannually to annually and changes the report submission date. These changes implement the August 1992 amendment to 10 CFR 50.36a.

The change does not alter any administrative controls over radioactive effluent, nor does involve any physical alteration of the plant with respect to radioactive effluent. The changes are administrative in nature and will not affect any plant structures, systems, or components. No unreviewed safety question is created. Approved by Amendment 89 on April 14, 1994.

OL 1146

Undervoltage Trip Protection

This amendment was initiated after evaluation of a Westinghouse Technical Bulletin (NSD TB-92-03-RO). RFR 10560A evaluated the RCP Undervoltage Reactor Trip and Response time for Gripper Release.

RCP Undervoltage Reactor Trip

This Technical Specification change modifies Table 2.2-1 to correct the Total Allowance for "Undervoltage - Reactor Coolant Pumps" in order to reflect the undervoltage relay span and to correct the Allowable Value to reflect the rack measurement and test equipment uncertainty. This amendment also changes the Bases to clarify the relationship between the 13.8 kV power supply and the 120 Vac undervoltage relays.

The Safety Analysis Report limit reported in FSAR Table 15.0-4 and the trip setpoint reported in Table 2.2-1 of the Technical Specifications are not changed. This change does not involve any hardware changes and the RCP undervoltage reactor trip will continue to function in a manner consistent with the accident analysis. No unreviewed safety question is created by implementation of this amendment. Approved by Amendment 91 on August 5, 1994.

OL 1150

ECCS Accumulator Allowed Outage Time

This amendment application includes changes to Technical Specification 3/4.5.1 as well as Bases Section 3/4.5.1. A new Action Statement is added to Specification 3.5.1 to provide a 72 hour allowed outage time (AOT) for one accumulator inoperable due to its boron concentration not meeting the 2300 to 2500 ppm band. The existing Action Statement is changed to increase the AOT from 1 hour to 24 hours. Surveillances 4.5.1.1.a.1) and 4.5.1.1.b are revised and Surveillance 4.5.1.2 is deleted per the guidance of NRC Generic Letter 93-05. Surveillance 4.5.1.2 shall be retained in FSAR Chapter 16.

The proposed amendment does not involve an unreviewed safety question. There is only a very insignificant effect on the overall core damage frequency (CDF) reported in ULNRC-2.703 (Callaway Individual Plant Examination). The changes are consistent with NUREG-1431, Standard Technical Specifications for Westinghouse Plants. Approved by Amendment 91 on August 5, 1994.

OL 1152

Spray Additive Tank Elimination

This amendment replaces Technical Specification 3/4.6.2.2, Spray Additive System, with a new TS 3/4.6.2.2 entitled Recirculation Fluid pH Control (RFPC) System. The associated Surveillance Requirements and the Bases will also be revised. In addition, the Bases section for the Refueling Water Storage Tank System will be revised.

The major associated modification (CMP 92-1053) replaces the requirement for an active spray additive system with a passive recirculating fluid pH control system. The replacement system utilizes a minimum of 9000 lbs of trisodium phosphate-dodecahydrate to neutralize the pH of the sump fluid post-LOCA. The trisodium phosphate will be contained in two baskets. One basket will be located within the confines of each containment recirculation sump. The equilibrium pH of the recirculating fluid is maintained between 7.1 and 8.1 to maintain Iodine in solution and to minimize chloride induced stress corrosion cracking. No unreviewed safety question is created by this modification.

Approved via Amendment 96 on March 30, 1995.
(Ref: FSAR CN 94-24).

OL 1158

Change to Technical Specification 3/4.8.2 and 3/4.8.3

This amendment revises TS 3/4.8.2.1, 3/4.8.2.2, 3/4.8.3.1, and 3/4.8.3.2. The changes address the 125-volt DC busses, adds provisions for swing battery chargers, and removes provisions for the 4160-volt and 480-volt AC emergency busses. CMP 92-1014 implements the approved changes. Approved by Amendment 99 on April 18, 1995.

OL 1163

Remove Requirement to Perform Hot Restart Test Within 5 Minutes of 24 Hour Test

This amendment revises Technical Specification Surveillance Requirement 4.8.1.1.2f.7 to remove the requirement to perform a hot restart within 5 minutes of completing the 24 hour test and place it in a separate Technical Specification.

This revision is based, in part, the guidance of Reg. Guide 1.9, Rev.3, NUREG-1363, and NUREG-1431. This change will allow the hot restart test as a separate surveillance to demonstrate that the diesel engine can restart from a hot condition. This change does not create an unreviewed safety question. Approved by Amendment 95 on March 20, 1995.

OL 1164

Schedular Exemption to Technical Specification for ILRT

This evaluates an exemption to 10 CFR 50, Appendix J, Section III.D.1(a) and a revision to Technical Specification Surveillance Requirement 4.6.1.2.a and its associated Bases. This will defer the next scheduled CILRT for one outage, from Refuel 7 (scheduled for March 1995) to Refuel 8 (scheduled for September 1996).

The Callaway CILRT history provides substantial justification for the adjusted test schedule. Previous tests have shown that Callaway has a low leakage containment. The extension will not, by itself, increase the probability of a malfunction of equipment important to safety. No unreviewed safety question is created by this change. Approved by Amendment 98 on April 5, 1995.

APA-ZZ-01003 Rev. 4

Mode Applicability Change for Containment Purge Radiation Monitors

This procedure revision involves changing the mode applicability for radiation monitors GT-RE-22 and 33 from "All Times" to Modes 1, 2, 3, 4 and during core alterations or movement of irradiated fuel within the containment. Action Statement 41 is also changed to allow one channel to be inoperable, while purging, for up to 72 hours.

In Modes 5 and 6 without fuel handling in progress, the Containment Purge Isolation Instrumentation need not be operable since the potential for radioactive releases is minimized and operator action is sufficient to ensure post accident offsite doses are maintained within the limits of 10 CFR 100.11. Lengthening the Allowed Outage Time to 72 hours is acceptable because of the redundancy of instrumentation and the similarity with other radiation monitors that have an NRC approve allowed outage time of 72 hours (Ref: Amendment 49) This change would not adversely affect or endanger the health of the general public and does not involve an unreviewed safety question.

CTP-ZZ-00511 Rev. 0

Optimization of Secondary Chemistry ECP and Chemical Feed

CTP-ZZ-00511 Rev. 0 will allow optimization of the Secondary Chemistry Treatment Program within EPRI recommended guideline limits without having any adverse impact on any secondary system components. There will be no adverse impact on steam generator heat removal capabilities nor on steam generator tube integrity. No unreviewed safety question exists.

ESP-ZZ-00010 Rev. 11

At-Power Moderator Temperature Coefficient Measurement

The procedure for the at-power moderator temperature coefficient measurement is revised to use the steam dumps rather than the turbine throttle valves to maintain reactor power stable during the test. It was determined that the change does not involve an unreviewed safety question.

ETP-AC-ST003 Rev. 0

Turbine Torsional Response Testing

This procedure is performed to determine turbine generator torsional frequencies at or near 120 hertz. Damage has occurred to some General Electric turbines similar to Callaway's that had resonant frequencies in this range. This test is performed on the turbine generator during a turbine roll prior to startup. Changes are not made to any safety related systems or equipment. All necessary protection for a normal turbine roll will be in place. This test does not create an unreviewed safety question.

ETP-AE-03003 Rev. 0

Chemically Enhanced Pressure Pulse Cleaning

This procedure governs the cleaning of all Steam Generators using the Westinghouse Pressure Pulse Chemical Cleaning process (PP/CC). The evaluation addresses the application of PP/CC for a total pulsing duration of up to 98 hours at 6 pulses per minute with an iron solvent step of approximately 40 hours. The integrity of the Steam Generator tube bundles will be maintained after application of PP/CC and does not represent an unreviewed safety question.

In addition, the following items were reviewed for impact on safety related equipment/components:

1. Bulk Chemical Storage
2. Containment Integrity
3. Cooling Water

All bulk chemicals have been evaluated under the Callaway Fire Protection Program and approved for use per the Callaway Hazardous Material Control Program. All chemical transfer piping is routed in lined troughs to minimize potential of getting cleaning chemicals in plant drains.

The S/G PORVs will be utilized during the chemical cleaning evolution as a vent path during filling, nitrogen pulsing, and draining. The PORVs will be closed any time the steam generator secondary side is opened to containment.

The UHS pond will be used to supply cooling water for the chemical treatment process. The thermal loading on the UHS has been satisfactorily evaluated.

No unreviewed safety question is created by implementation of this activity.

ETP-BB-03131 Rev. 0

Steam Generator Moisture Carryover Measurement

ETP-BB-03131 provides directions for the performance of a steam generator moisture carryover test. The test is performed by injecting approximately 1.0 Curie of Sodium 24 and taking samples to determine the amount "carried over" into the Main Steam System. The procedure installs three temporary modifications to facilitate the test. The evaluation showed that neither performance of the test nor the implementation of the temporary modifications would create an unreviewed safety question.

ETP-EF-00003 Rev. 0

Room Cooler Coil Backflush

This evaluation is applicable to backflushes of individual room coolers using Service Water/Essential Service Water. The applicable train of ESW will be declared inoperable during the backflush evolution while the backflush is in progress. Water tight doors will be closed prior to flushes. Only one train of ECCS will be disabled at a time. Only one cooler will be backflushed at a time. The impact on overall core damage frequency is insignificant should a rupture in the fire hose occur. In addition, this will not adversely impact the ability of the ESW system to perform based on potential impact on the UHS pond level. No unreviewed safety question is created by performance of this procedure.

ETP-GN-ST006 Rev. 0

Containment Cooler Train B Coil Flush

Procedure ETP-GN-ST006 provides an acceptable method to backflush individual Containment Cooler coils using Essential Service Water. Containment Integrity is maintained by Operable redundant isolation valves and use of administrative controls while the ASME Section III piping is opened. No unreviewed safety question is created by performance of this procedure.

ETP-MB-ST001 Rev. 0

Main Generator Excitation Stability Test

This procedure is performed for determination of the stability of the main generator excitation control in response to step disturbances. This test is performed under normal operating parameters for the main generator excitation system. The test will cause minute disturbances to the excitation system that will be discernable for the most part by sensitive recording instrumentation. The changes do not make changes to any safety related system or component and does not impact their function. The test does not increase the probability of a turbine/generator trip. The test does not remove, bypass, or change the operating point of any protective relay. Therefore, the test performed under ETP-MB-ST001 does not involve an unreviewed safety question.

ETP-RJ-ST001 Rev. 0

Test of Rod Drop Software

This procedure performs a test not described in the FSAR which will test rod drop time testing software. The test will occur during a normal plant shutdown. Prior to tripping the rods, auxiliary feedwater will be placed in service and the feedwater isolation valves will be closed. In the plant shutdown procedure, OTG-ZZ-00005, at the point where the rods would normally be driven in to shut down the reactor, the reactor trip breakers will be opened to insert the rods. At the time the reactor trip breakers are opened, the plant will be in Mode 2. Rod drop data will be collected automatically by the plant computer.

This planned evolution is bounded by existing analyses for reactor trips. The effect on the plant is minimized by first placing auxiliary feedwater in service and closing all FWIV's. Performance of this procedure does not involve an unreviewed safety question.

ETP-ZZ-00006 Rev. 3

Bank Reactivity Worth Measurement

This evaluation addresses test results which failed to meet the test review criteria of Procedure ETP-ZZ-00006, Rev.3 (Bank Reactivity Worth Measurement) when the test was performed on November 21, 1993.

The failure of shutdown bank A to meet the test review criteria does not constitute an unreviewed safety question since the total integral worth of all banks satisfies the required design acceptance criteria.

ETP-ZZ-00046 Rev. 0

Containment Penetration Seal Installation, Test, and Removal

This procedure provides directions for installing and removing penetration assemblies which allow for steam generator work to progress during fuel handling operations. The assemblies are designed, fabricated, and tested to withstand the maximum possible containment pressure which may occur during an accident conditions while they are installed (Modes 5 and 6).

This evaluation shows that the penetration assemblies may be left installed during all operations in Modes 5 and 6, provided at least one containment cooler remains operational. No unreviewed safety question is created by the installation of the seal assemblies for Modes 5 and 6.

ITP-AB-ST001 Rev. 0

Bypass Low Steamline Pressure SI Trip from Pressure Channel 515

This procedure allows bypassing of main steam pressure channel ABP-0515 to prevent a spurious SI while performing required surveillance testing on channels ABP-0514 and ABP-0516. Since this method is allowed by Technical Specifications, no unreviewed safety question exists.

TOPRP Rev. 9

Turbine Overspeed Protection Reliability Program

This evaluation is applicable to Revision 9 to the Turbine Overspeed Protection Reliability Program. This revision primarily expands and clarifies the technical description of the components that provide the main turbine overspeed protective functions. Technical changes were also incorporated clarifying the description of and the contribution from the extraction nonreturn valves. Additional details of testing were also given.

No administrative changes, test frequencies, inspection frequencies or acceptance criteria are changed in this revision. The changes do not decrease the overall level of overspeed protection, but clarify and better explain the overspeed protection program. The changes do not have any effect on design basis accidents and does not increase the consequences of any accident previously evaluated in the FSAR. These changes do not result in an unreviewed safety question.

RFR 03030B

Control Building HVAC Changes to Support Spray Additive Tank Deletion

The flow rate through Control Room Filter Adsorber Units (FGK01A/B) is changed from 1800 - 2700 CFM to 1800 - 2000 CFM to meet the required residence time in the clean as well as the dirty filter condition of 0.25 seconds. A minimum residence time of 0.25 seconds conservatively restricts the potential exposure seen by the control room operators by more efficiently removing any iodine entrained in the control room envelope. The system is verified to be functioning properly by a series of retests to ensure proper flow through the Control Room Pressurization Filter Adsorber Units (FGK02A/B) to meet their minimum residence times as well.

The control room is verified to be pressurized at least to 1/8 IWG during a Control Room Ventilation Isolation Signal (CRVIS). The new testing protocol is more conservative and reflects the actual atmosphere conditions expected during a DBA. No unreviewed safety question is created by this change.

RFR 06151B

Removal of Limits for Radionuclides that Do Not Affect Accident Consequences

This RFR addresses removal of limits for Co-58, Sr-89, Nb-95, Zr-95, Cs-134, and Ba-140 from the isotopic listing of maximum activity inventories and concentrations which will prevent exceeding values used in FSAR accident analyses. The removed isotopes make an insignificant contribution to accident consequences. This change does not introduce an unreviewed safety question.

RFR 08379B

Air Flow Increase for Control Room Air Conditioners

Increasing the air flow rate from 15,700 cfm to approximately 18,000 cfm increases the cooling capacity of the control room air conditioners and improves the ability to maintain the control room temperature.

The increase in fan speed causes more horsepower to be used and more heat to be generated as a result. This heat is within the HVAC unit and does not affect the room temperature of the HVAC equipment rooms. The background noise is limited to 65 dB per NUREG-0700. No unreviewed safety question is created by this flow increase.

RFR 08653H

Outside Storage of Spent Resin/Filters (CN 91-29, MP 91-1056)

This RFR supports use of the interim storage area provided by CMP 91-1056 for radioactive spent resins and filters within high integrity containers (HICs) placed in storage modules.

Based on the accidents previously analyzed in Chapters 2 and 15 of the FSAR, the consequences of any accident involving a spent/filter HIC are bounded by existing safety evaluations. No unreviewed safety question exists for the activities associated with interim outside storage of the spent resin/filter HICs.

RFR 09780D

Allowable Penetration Between Auxiliary and Control Building

This evaluation establishes the acceptability of allowing a 6" diameter penetration between the Auxiliary Building and Control Building to support the installation of a 3 1/2" conduit in accordance with modification CMP 92-1014. An analysis showed that the 6" diameter penetration could be made without impacting the operations of the HVAC equipment for the Control and Auxiliary Buildings nor causing excessive inleakage of unfiltered air into the Control Building. An EOSL entry will be made and no other breaches will be allowed during the evolution. No unreviewed safety question is created.

RFR 10296D

Modify Reactor Coolant Drain Tank Drip Pan Drain Lines

This equivalency evaluation approves the rerouting of Reactor Coolant Drain Tank pump casing drain and drip pan drain lines directly to the containment trench. This modification also modifies the drain spool piece to provide a connection for hydrolazing drain line LF-809-HCD-6".

Failure of this piping will not compromise any safety related equipment. The drain lines are simply gravity drains that are open to the atmosphere. Although the rerouted drain line will require a support to be welded onto the pump skid, this will not affect the pressure boundary function of the pump or associated piping. There is no impact on any Technical Specification margins and no new or different types of accidents created. No unreviewed safety question is created by this modification.

RFR 10403C

Install 4-Bottle Nitrogen Storage Rack in Rm 1322

The addition of a second two bottle storage rack in room 1322 is approved. The second storage rack will be installed under the same requirements as the original approved configuration. The racks will provide storage of high pressure Nitrogen cylinders which are used as an alternate supply to the Safety Injection Accumulators.

The cylinders will be stored in seismically designed racks within room 1322. No unreviewed safety question exists.

RFR 13055B

Approve Use of NES Segmented Cavity Seal

RFR 13055B approves the use of an alternate annulus seal between the reactor vessel flange and the seal ring flange prior to flooding the refueling pool during refueling outages. The alternate acceptable seal is a segmented solid elastomeric (not inflatable) seal in lieu of the previously used inflatable elastomeric seal.

The segmented elastomeric seals will have a "T" shaped cross-section and will include 1" diameter T-Bolts spaced every 5 degrees to fasten the seal between the flanges. The revised seal is evaluated for normal and seismic loads and will maintain its structural integrity following a postulated dropped fuel assembly load. No unreviewed safety question is created by this change.

RFR 13877A

Cavity Return Air Temperature Alarm Setpoint Change

This RFR evaluates the effects of changing the alarm setpoint of GNT-0049 from 210 Degrees F to 240 Degrees F. No adverse effects will be experienced by the concrete. The NI detectors and the detector cable will not exceed any maximum temperature. The airflow through the cavity cooling system will not be changed. No unreviewed safety question is created by this setpoint change.

RFR 14405A

Swagelok Test Fittings

This evaluation approves the permanent replacement of blind flanges in the Main Steam system with test flanges that have swagelok fittings welded to them. Currently the blind flanges must be removed and replaced each time testing of the main steam system is necessary. The evaluation is required because the Piping and Instrumentation drawings included in the FSAR will be modified.

The affected portion of the Main Steam System is downstream of the MSIV's and is non-safety related. This improvement does not affect any safety related components and does not impact the probability or consequences of any accident previously evaluated in the FSAR and does not create any new accidents. This equivalent material evaluation creates no unreviewed safety question.

RFR 14421A

Hand Held Fire Extinguisher Mounting Hooks

This evaluation allows the removal of the portable fire extinguishers from Containment during normal operation to eliminate any seismic concerns, determines that there has not been an operability concern associated with the fire extinguishers in containment, and permits some flexibility in the use of different types of fire extinguishers to meet requirements and to provide protection commensurate with the fire hazard in accordance with NFPA 10.

Because the containment is not normally occupied during normal operation, the extinguishers provided just outside the personnel hatch will ensure that the consequences of a fire evaluated previously in the FSAR will not be increased. This change does not adversely affect the fire protection program or the ability of the plant to achieve and maintain a safe shutdown in the event of a fire. This change is in accordance with the requirements of License Condition C.5.e of facility operating license NPF-30 for Callaway Plant. This change was incorporated into the FSAR via CN 93-58.

RFR 14466A

Evaluate Discretionary Line-Up for Control Building Ventilation System

This RFR documents the isolation of normal Control Room air supply and exhaust due to the degradation of the quality of outside air being supplied to the Control Room when the Auxiliary Boiler or Emergency Diesel(s) are in operation. This RFR approves the positioning of dampers in their CRVIS positions to prevent unwanted fumes from entering the Control Room yet maintaining ventilation to areas where significant air exchange takes place to properly dilute any fumes being supplied.

These actions will not affect the manual or automatic initiation of a CRVIS. Carbon Dioxide levels will be monitored continuously in the Control Room. A maximum time of 12 hours has been set for damper isolation. Should Carbon Dioxide levels approach the limit of 1% prior to this time, a CRVIS should be initiated. No initiating assumptions for any known analysis will be affected by this RFR. No unreviewed safety question is created.

RFR 14592A

Evaluation of Continued Sewage Treatment Plant Operations

This RFR concludes that continued operation of the Callaway Sewage Treatment Plant as slightly contaminated with low levels of radioactive material will not adversely affect the environment or the public since no radioactive material will be released to the environment. All slightly contaminated sludge will be disposed of as low level radioactive waste in accordance with NRC requirements. No unreviewed safety question exists.

RFR 14764A documents a similar evaluation for slightly contaminated sludge in the sludge holding tank (Cobalt-60, Cobalt-58, and Cesium-134). No unreviewed safety question is created.

RFR 15407A documents a similar evaluation for the sewage treatment plant with slight levels of Cobalt-60 in the plant sludge holding tank. No unreviewed safety question exists.

SOS 94-1452 documents a similar evaluation for slight contamination found during a monthly sample of the sewage treatment plant inground treatment unit "B" mixed liquor. No unreviewed safety question exists.

These Safety Evaluations were performed to address operability of the sewage treatment plant per NRC IE Bulletin 80-10.

RFR 10553 documents a similar evaluation for staging of shipping containers of slightly contaminated sewage treatment plant sludge for accumulation prior to offsite shipping for further processing. The containers may be staged at the sewage treatment plant and controlled in accordance with the Callaway Health Physics program. No unreviewed safety question is created.

RFR 14759A

Containment Cooler Operability with 25 PSIG Back Pressure

This evaluation documents the acceptability of operating the ESW system with a reduced back pressure on the containment coolers. The required backpressure is reduced to 25 PSIG. The containment coolers are capable of performing their design function under normal and accident conditions. The back pressure on the containment coolers will be sufficient to avoid boiling water in the containment coolers thus preventing vapor lock. No unreviewed safety question is created by allowing the reduced back pressure.

RFR 14770A & C

Evaluation of Storage Area for Portable Chemical Addition Skids

These RFR's evaluate the permanent storage of chemical addition skids in rooms 1206 and 3101 and a storage cabinet in room 3101. Revision A also approves the sampling, flushing, and treatment of deadleg piping in the ESW system. In addition, Rev. A addresses the chemicals used and the replacement of the existing pipe caps with CAMLOCK fittings on the vent and drain valves which will be used for the injection.

These changes will not adversely affect the Fire Protection program and no seismic II/I concern will result due to permanent storage of the skids and cabinet. The RFRs delineate the engineering controls necessary and the approved installations. No unreviewed safety questions are created.

RFR 14801A

Reposition of SI Pump Hot Leg Discharge Valves While in Mode 1

This RFR evaluates the repositioning of EM-HV-8802A & B and EM-HV-8821A & B with the unit in Mode 1.

EM-HV-8802A can be opened as long as EM-HV-8821A is closed first and remains closed until EM-HV-8802A is reclosed. Likewise, EM-HV-8802B can be opened as long as EM-HV-8821B is closed first and remains closed until EM-HV-8802B is reclosed. Power must be removed from the operators for EM-HV-8821A & B. The associated SI pump handswitch must also be placed in Pull-to-Lock to prevent hot leg injection in the early stages of an accident. This line-up will allow EM-HV-8802A or B to be worked without rendering both Safety Injection trains inoperable. The ability of the ECCS to perform its function will not be impacted by the repositioning of the two valves. No unreviewed safety question is created by this evolution.

RFR 15026A

Install Quick Disconnects on Reactor Makeup Valves in Auxiliary Building

This evaluation allows the replacement of 1" and 3/4" NPT pipe caps in the reactor makeup water system with a cam lock configuration. This will allow quicker connection of decontamination equipment. This is an equivalent hardware replacement and does not create an unreviewed safety question.

RFR 15048A

Evaluation of Impact on ECCS of SI Pump Miniflow Valves

This RFR evaluates local manual actions required to realign the ECCS system in the event of a LOCA with a concurrent Loss of Offsite Power and Emergency Diesel B fails to start with valve EM-HV-8814B tagged out for maintenance (as allowed by Technical Specification Action Statements) as the worst case scenario for the EM-HV-8814A & B valves. These valves provide miniflow isolation for the SI pumps.

The FSAR discusses manual alignment from the control room of the ECCS system for cold leg recirculation. This evaluation discusses local manual operation of valve BN-HV-8813 to satisfy this realignment. No unreviewed safety question exists.

RFR 15055A

Evaluate Resin Transfer in Fuel Building

A high integrity container (HIC) of radioactive spent resin is to be transferred from one type of shipping container to another. The transfer is performed in the Fuel Building using the auxiliary crane and associated equipment only within the truck bay area. No unreviewed safety question is created by this activity.

RFR 15290A

Accident Monitoring Instrumentation Requirement Clarification

This evaluation addresses FSAR Change Notice 94-34 and RFR 15290A. The FSAR change clarifies the Callaway commitment to USNRC Regulatory Guide 1.97 Rev. 2 for accident monitoring instrumentation. This evaluation also provides a clarification of the Technical Specification requirement for the number of redundant channels of accident monitoring instrumentation. There are no design changes, procedure changes, or Technical Specification changes associated with the FSAR change and Technical Specification clarification. There is also no change of intent of Callaway's commitment to the Regulatory Guide or to the Technical Specifications. No unreviewed safety question is created.

RFR 15366A

Downgrade Diesel Generator Air Intake Pressure Indicators to Non-Safety

The emergency diesel generator combustion air intake pressure indicators are proposed to be downgraded from safety related to non-safety related status. This is allowed based on the fact that the local indication is used to indicate a need to perform maintenance on the air intake filters. This is a maintenance activity and the indication is not required for operability of the engine. Further, no credible failure mode exists which could impair operability of the engine based on this change. No unreviewed safety question is created by this change.

RFR 15435B

Charcoal Cannister Removal following Painting

This RFR evaluates the surveillance testing required on a filter unit based upon the volatile organic content of the coating being applied and the filter unit communicating with the coating. A program is established to control all future coating applications and their affects on the charcoal filter units.

Organic compounds from coatings can accumulate on the charcoal of each filter unit up to 2.5% by weight before surveillance testing is performed. Changes in charcoal efficiency are not expected until the total Volatile Organic Content (VOC) exceeds 10% by weight. Total VOC will be trended for each filter unit as it communicates with the area being coated. No unreviewed safety question exists.

RFR 15470A

Fuel Building HVAC in Normal Lineup for Fuel Handling

This evaluation determines that it is acceptable to allow fuel handling operations in the fuel building with the Auxiliary/Fuel Building Normal Exhaust System operating. The plant will rely on two independent radiation monitors which continuously monitor the effluent from the Fuel Building to perform their design basis function and automatically initiate a Fuel Building Ventilation Isolation Signal (FBVIS) should a fuel handling accident occur. No unreviewed safety question is created by handling fuel in the Fuel Building with Normal Exhaust Operating.

RFR 15642A

Chemical Degassification of RCS on Plant Shutdown

This evaluation examines the effects of chemically degassing the Reactor Coolant System during plant shutdown. This evolution is performed in Mode 5. Chemical degassing is the reduction of the RCS dissolved hydrogen concentration through reaction with added Hydrogen Peroxide. Using this method to remove dissolved hydrogen does not adversely affect the RCS or any of its supporting safety-related systems. Plant response to a design basis accident is also unaffected. Therefore, chemical degassing the RCS does not represent an unreviewed safety question.

RFR 15662A

Evaluate Blocking Open EM-HV-8803A & B

This evaluation examines the effects of blocking the Boron Injection Tank (BIT) inlet isolation valves, EM-HV-8803A/B in the OPEN position. Only one of the valves will be blocked in the OPEN position at a time. These valves are part of the High Head Safety Injection System (HHSIS). The capability of the HHSIS to perform its design functions is not adversely affected nor is Technical Specification operability. Therefore, blocking open one of the BIT inlet isolation valves does not create an unreviewed safety question.

RFR 15703A

Boration Flow Path Evaluation

This RFR documents the acceptable boration flow paths to the suction of the Centrifugal Charging Pumps. No physical change to the plant is authorized by this RFR. The original design of the plant provided for the use of the Boric Acid Storage System (BASS) in the event a missile renders the RWST inoperable. This evaluation supports the original assumptions utilized and provides justification to take manual action to borate the RCS in the event of a postulated failure of the RWST with the "B" train emergency power unavailable.

This evaluation concludes that no unreviewed safety question exists.

RFR 15712A

Titanium Addition to Secondary System

RFR 15712A approves the use of titanium dioxide in the Steam Generators as an inhibitor to Intergranular Attack/stress corrosion cracking (IGA/SCC). The titanium dioxide is compatible with the materials of construction used in the Balance of Plant and its addition will have no adverse impact on equipment important to safety. The controlled addition of titanium dioxide will not increase the S/G tube fouling above acceptable limits. No unreviewed safety question is created by this process.

RFR 15713A

Removal of Thermo-Lag for Various Plant Areas

This evaluation discusses the removal of Thermo-Lag on the RHR and Containment Spray hatch covers, the Buttress hatch covers and the cable tray fire stops. These items have been evaluated and the removal is acceptable. The barriers will continue to perform their intended function and do not present a II/I concern. No unreviewed safety question is created. This change is in accordance with the requirements of License Condition C.5.e of facility operating license NPF-30 for Callaway Plant.

RFR 15847

Cycle 8 Reload Design

Revision A of this RFR applies to the Cycle 8 reload design and is applicable for operation up to and including Mode 2. Revision B of this RFR approves operation of the Cycle 8 core up to a cycle exposure of 60 Effective Full Power Days (EFPD) or 2637 MWD/MTU. Revision C approves operation through the end of Cycle 8. The Cycle 8 reload design satisfies all of the safety parameter limits and acceptance criteria, and has been evaluated using standard reload design and approved fuel rod design models and methods. This evaluation concludes that there is no unreviewed safety question related to core design for operation through cycle 8.

RFR 15854A

Evaluate Vacuum Fill and Vent of Reactor Coolant System

This evaluation addresses the use of a vacuum vent system to remove air and non-condensable gases from the reactor vessel and steam generator tubes by pulling a vacuum on the RCS. An air driven eductor is used to remove air and non-condensable gases from the RCS by pulling a vacuum on the system via the vessel head vent and pressurizer vent/drain connection. The vacuum will be applied when the plant is at mid-loop and will continue until the pressurizer is nearly full. The air and gases from the operation will be discharged to the containment ventilation exhaust.

The effects of the vacuum fill and vent on RHR Net Positive Suction Head, Mid-Loop level instrumentation, RCP Seals, and reactivity have been evaluated. All equipment exposed to the vacuum have been evaluated. Those impacted by the vacuum will be isolated. No unreviewed safety question is created by this process.

RFR 15973A

Evaluate Staking Steam Generator Tubes

This RFR evaluates the installation of cable stabilizers into Westinghouse Model F steam generators. The evaluation is Proprietary to B&W Nuclear Technologies. However, based on the evaluation in B&W Engineering Information Record 51-1236179-00, no unreviewed safety question is created by the installation of the stabilizers.

RFR 16033A

Operability Evaluation of EJ-FCV-0611

This evaluation examines the failure of valve EJ-FCV-0611 ("B" Train RHR Miniflow Control Valve) during the restoration and placement of RHR back to its standby lineup during Refuel Outage 7. The specific conditions that may have contributed to the failure will not be present when the valve and the RHR system is required to respond to a design basis accident. The capability of the ECCS to perform its design function is not adversely affected nor is Technical Specification Operability. Therefore, there is no impact on plant safety and an unreviewed safety question is not created.

RFR 16057A

Application of Heat Resistant Coating to RCP

This RFR approves the use of a non-safety related coating on the external carbon steel surfaces of the seal housing and associated components only. The coating is not approved for application on stainless steel, internal piping system surfaces, or exterior surfaces of the pump. The coating will be applied to help reduce corrosion at the horizontal seal between the RCP seal housing and the main flange.

The area that the non-safety related coating will be applied is located on the seal housing which is inside the motor support housing. The coating is assumed to fail in a DBA but it will be trapped within the pump housing, thus eliminating any effects on the containment emergency sumps. The coating is not in contact with any plant fluid systems or mechanical systems. The use of the non-safety related high temperature coating on the seal housing of the RCP's does not create an unreviewed safety question.

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