

Bart D. Withers President and Chief Executive Officer

March 11, 1991

WM 91-0036

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

> Subject: Docket No. 50-482: Wolf Creek Generating Station Annual Safety Evaluation Report

Gentlemen:

Attached is the Annual Safety Evaluation Report for Wolf Creek Generating Station which is being submitted pursuant to 10 CFR 50.59(b)(2). This report covers the period of January 1, 1990, to December 31, 1990.

Very truly yours,

Bart D. Withers President and Chief Executive Officer

BDW/aem

Attachment

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WOLF CREEK NUCLEAR OPERATING CORPORATION

Wolf Creek Generating Station

Docket No: 50-482 Facility Operating License No: NPF-42

ANNUAL SAFETY EVALUATION REPORT

Report No: 6

Reporting Period: January 1, 1990 through December 31, 1990

Prepared by: Merlin G. Williams

Approved by: G. D. BOY

Director of Plant Operations

EXECUTIVE SUMMARY

The purpose of this report is to provide a brief description of changes, tests, and experiments performed at Wolf Creek Generating Station pursuant to 10 CFR 50.59(a)(1). This report includes summaries of the associated safety evaluations that were reviewed and found to be acceptable by the Plant Safety Review Committee for the period beginning on January 1, 1990, and ending on December 31, 1990. This report is submitted in accordance with requirements of 10 CFR 50.59(b)(2).

Three major categories of safety evaluations are included in this report. Section I contains the Plant Modification Requests which are the primary vehicle used for permanent plant modifications and design drawing revisions. Section II contains the Safety Evaluations which are used primarily for temporary plant modifications, procedure revisions and temporary procedures. Section III contains the summaries of the remaining safety evaluations performed at Wolf Creek Generating Station utilizing various programs including Corrective Work Request Dispositions and Updated Safety Analysis Report (USAR) Change Requests.

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SECTION I

PLANT MODIFICATION REQUEST: 00639 Revision: 3

Title: Waste Evaporator Sample Point Modification

Description: This modification revision changes the orientation of HB V499, a three-way plug valve. This allows a Liquid Radwaste System evaporator sample to be taken from the concentrate pump through local sample valve HB V106 rather than from the evaporator bottoms through the isolation valve HB V107. This change will also reduce the protrusion of the sample station into the doorway opening. No piping supports were modified or added because of this modification.

Safety Evaluation: The USAR states that samples can be taken from the Liquid Radwaste System Evaporator Package but does not describe the sampling method or procedure. The design criteria of the remainder of the sample system is maintained with this modification. Therefore, there is no increase in the probability of a previously evaluated accident or malfunction of equipment important to safety. The consequences of the previously identified Radioactive Liquid Waste System leak or failure is not affected because the small sample piping is insignificant compared to the assumed failure of a large tank.

Because the failure modes of the sample station are the same as the failure modes of the remainder of the sample system piping, there is no different type of accident or malfunction than previously evaluated in the USAR.

There are no margins of safety defined in the Technical Specification Bases which could be affected by the addition of Liquid Radwaste Sample System piping.

PLANT MODIFICATION REQUEST: 00948 Revision: 0

Title: Reactor Coolant Pump Seal Water Throttle Valve Replacement

Description: This modification involves the replacement of Reactor Coolant Pump (RCP) Seal Water Injection Throttle Valves BG V198, V199, V200, V201, and combined RCP Seal Number 1 leak-off Return Throttle Valve BG V202. There has been seat cracking in this type of Yarway Hy-Drop torottle valve caused by an inadequate seat brazing procedure.

The performance and life of these Hy-Drop throttle valves depends upon the orifice size. A review of the existing operating conditions of these valves was conducted to check if a change in the orifice size of these valves could enhance their performance. The vendor has advised that the replacement valves BG V198, V199, V200 and V201 should have a new orisice size of 5/16 inch and BG V202 should have a new orifice size of 7/16 inch.

Safety Evaluation: The purpose for modifying the orifice of the Hy-Drop throttle valves is to make them more suitable for the specific operating conditions. This modification provides better performance of the valves, therefore the probability of occurrence and the consequences of an accident or malfunction previously evaluated is not increased.

Pecause the original design of the RCP seal system remains unchanged, no new accident or malfunction is created.

There is no reduction in the margin of safety as defined in the Technical Specifications.

PLANT MODIFICATION REQUEST: 00999 Revision: 1

Title: Radiologically Controlled Area Fence Addition

Description: This modification adds a new Radiologically Controlled Area (RCA) fence around the southern portion of the power block and involves a change to USAK Figure 1.2-44 entitled "Plant Area Layout." The objective for the fence is to ensure that only authorized personnel receive exposure in the enclosed area. Revision 1 provides a revision to the safety evaluation.

Safety Evaluation: The RCA fence is constructed of chain link mesh like the main security fence. The new fence will not adversely affect the site flood hazard analysis for flooding of safety related structures under postulated probable maximum precipitation (PMP) conditions because it will not cause a significant impediment to the flow of surface storm water. It will not significantly impede general surface drainage away from the power block area as long as the lower portion of fencing is maintained free of debris.

The RCA fence, which has no security plan function, is provided with gates to allow access in the event of any type of emergency. Both Health Physics and Security personnel have keys to the low-security padlocks on the gates. The additional RCA fence will neither adversely affect the site flood hazard analysis nor prevent timely access to areas within the fence during any type of accident. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

There is no possibility that an accident or a malfunction of equipment important to safety may be created of a different type than any previously evaluated in the USAR.

The RCA fence addition will not result in a reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 01437 Revision: 2

Title: Hazardous Waste Storage Area Modification

Description: Permanent slabs were added to the Hazardous Waste Storage Area in Revision 0 of this modification. Revision 2 was initiated to revise USAR Figure 1.2-44 to reflect the addition of the slab.

Safety Evaluation: Existing accident analysis in the USAR does not involve the Hazardous Waste Storage Area and the possibility of a new accident is not created. There is no plant equipment involved with this modification, only a revision to a Figure. Previously evaluated accidents and malfunctions are not affected and no margin of safety is reduced.

PLANT MODIFICATION REQUEST: 01619 Revision: 3

Title: Recycle Evaporator Sample Line Modification

Description: This modification revision changes the orientation of HE V204, a three-way plug-valve. This allows a Boron Recycle System evaporator sample to be taken from the concentrate pump through local sample valve HE V085 rather than from the evaporator bottoms through the isolation valve HE V086. This change will also reduce the protrusion of the sample station in the d orway opening. No piping supports were modified or added because of this modification.

Safety Evaluation: The USAR states that samples can be taken from the Boron Recycle System Evaporator Package but does not describe the sampling method or procedure. The design criteria of the remainder of the sample system is maintained with this modification. Therefore, there is no increase in the probability of a previously evaluated accident or malfunction of equipment important to safety. The contiguences of the previously identified Radioactive Liquid Waste System leak or failure is affected because the small sample piping is insignificant compared to the assumed failure of a large tank.

Because the failure modes of the sample station are the same as the failure modes of the remainder of the sample system piping, there is no different type of accident or malfunction previously evaluated in the USAR.

There are no margins of safety defined in the Technical Specification Bases which could be affected by the addition of Boron Recycle Sample System piping.

PLANT MODIFICATION REQUEST: 01631 Revision: 1

Title: Replacement Filter Cartridges

Description: This modification approves the use of Babcock & Wilcox or an engineering approved equal replacement filter cartridge for use in the Chemical and Volume Control System, Steam Generator Blowdown System, Fuel Pool Cooling and Cleanup System, Gaseous Radwaste System, Liquid Radwaste System, Solid Radwaste System, Boron Recycle System, and Secondary Waste System piping.

Safety Evaluation: The substitution of a Babcock & Wilcox or an engineering approved equal replacement filter cartridge assures that the new filter is equal to or better than the originally approved filter. Therefore, no impact on a USAR evaluated accident or malfunction is present.

The filter performs a passive function and is not anticipated to affect the system any differently than the original filter. Therefore, a different type of accident or malfunction than any evaluated previously in the USAR is not created.

The make and manufacture of replacement filters is not addressed in the Technical Specifications and will therefore not alter any margin of safety.

FLANT MODIFICATION REQUEST: 01843 Revision: 3

Title: Reactor Vessel Head Drop Analysis

Description: This modification incorporates the results of a revision to the Reactor Vessel Head Drop Analysis into the Loads Analysis. The results of the calculation limit the maximum elevation the Reactor Head can be lifted during Reactor Head disassembly and reassembly. The imposed maximum drop of the head in free air of 28 feet above the vessel flange ensures that if a drop were to occur, there will be no consequential damage to the structural integrity of the Reactor Vessel. Core cooling capability and integrity of the fuel cladding will be maintained. This is based on a resultant total vertical deformation of the Reactor Vessel and supports of 0.97 inches being within prescribed limits. In addition, any postulated drop of the head onto the refueling floor during travel to the head storage stand, will not affect the capability of core cooling due to physical separation of both Engineered Safeguards Features trains.

Safety Evaluation: There is no physical modification to hardware in the plant imposed by this modification. It does not affect any equipment important to safety as the calculation verifies that the support displacement remains within acceptable limits. Therefore, there is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety.

There are no new types of accidents or malfunctions different from those previously evaluated in the USAR.

There is no impact on any Technical Specification margin of safety.

PLANT MODIFICATION REQUEST: 02060 Revision: 1

1 1.100 10.4

Title: Diesel Generator Vacuum Pressure Switch Replacement

Description: This modification involves the replacement of Standby Diesel Engine Vacuum Pressure Switches KJ PSL-098A, 098E, 198A and 198B. The function of the switch is to monitor the Diesel Generator combustion air intake to alert the operator when the combustion air pressure (vacuum) has decreased below normal.

The setpoints of the existing static O-ring switches are subject to drift. That is, the contacts close, energizing the annunciator when the Diesel Generator is first started caused by the initial vacuum created. After start, the vacuum decreases but because of the wide reset range of the switch, the switch will not reset and the contacts remain closed. This negates the purpose of the alarm. The existing static O-ring switches have a range of -407.9 inches water vacuum to 0.0 inches water. The required set point of -11 inches water vacuum is at the high end of the switch range and in the inaccurate area of operation of the switch. The replacement ITT Barton differential pressure switches have a range of -30 inches water vacuum to 0.0 inches water. The setpoint of -11 inches water vacuum is near the center of the range which is the most accurate area of operation for the switch.

Safety Evaluation: The accuracy of both the existing and new switches is stated as 412. Accuracy for pressure switches is measured as a percent of the range of the switch and is also measured as the ability of the switch to repeat the control operation with the same input pressure. Accuracy of the ITT Barton switch compared to the static O-ring switch based on the range of repeatability was calculated to be 13.6 times more accurate. The mounting of the new switches are essentially the same as the existing switches. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR is not increased.

"he ITT Barton switches do not change any system operation and their functional operation is identical to the existing switches. The possibility for an accident or malfunction of a different type than any evaluated previously in the USAR is not created.

The margin of safety as defined in the bases for any Technical Specification is not reduced.

PLANT MODIFICATION REQUEST: 02079 Revision: 0

Title: Radiation Monitoring System Logic Power Supplies Mounting Hardware

Description: This modification adds two stainless steel washers to the mounting hardware of the transistors for the five volt logic power supplies on the Sorrento Electronics RM-80 Process Radiation Monitoring System. This modification affects three power supplies all of which are spares located in the warehouse. The washers prevent the transistor insulators from breaking and causing a short should the mounting screws be over-tightened.

Safety Evaluation: Implementation of this design change is per Sorrento Electronics qualified rework procedures. This modification is an enhancement to equipment operability and does not degrade environmental or seismic qualifications. Therefore, this modification will not increase the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR. This modification does not create an accident or malfunction of equipment important to safety that has not been previously evaluated in the USAR.

This modification does not reduce the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 02148 Revision: 0-

Title: Demineralized Water Storage Tank Overflow Line Freeze Protection

Description: This modification installs a dual mission check valve at the end of the Derineralized Water Storage Tank (DWST) overflow line to prevent freezing of the pipe during periods of cold weather. The temperature sensor is being relocated in support of this modification.

Safety Evaluation: The Demineralized Water Storage and Transfer System (DWST) serves no safety function. The DWST stores water for use upon demand for make-up within the plant. The overflow line being modified and the new valve are not safety related consistent with the current classification of the DWST. The line does not interface with and is not required to support the operation of any safety related structure, system or component. Failure of the line or valve does not affect the safe shutdown of the plant. The temperature sensor which is being relocated is not safety related and serves only to provide indication of the effectiveness of the freeze protection which, also, is not safety related.

This modification is significantly removed from areas containing safety related equipment. Therefore, an accident or malfunction of safety related equipment of a different type than previously evaluated in the USAR, is not created.

The modification has no impact on any Technical Specification or associated bases.

PLANT MODIFICATION REQUEST: 02149 Revision: 1,3

Title: Station Service Water System Modifications

Description: In these revisions is the relocation of Essential Service Water (ESW) panel EF157, which houses flow indicators EF FI-03 and 04, from the communication corridor to the Control Building basement. The new location is preferred for use of the indicators when adjusting ESW A and B to Ultimate Heat Sink Valves EF HV037 and 38 and ESW A and B to Service Water System (SW) Valves EF HV039, 40, 41, and 42 to establish varying system operating flows. This location is nearer to these valves. In addition, the positions of valves EF HV037 and 38, ESW to Component Cooling Water (GCW) Heat Exchanger Valve EF HV051, and ESW to Return From CCW Heat Exchanger Valve EF HV059, have been revised from normally closed to normally open. This modification also provides for the installation of two non-safety related, permanent local temperature indicators EF TIL07 and 108 and their associated capillary (inside a one-inch conduit) routed to a stilling well. The indicators will monitor ESW intake temperature. This change does not interfere or interact with any other ESW changes made by Plant Modification Request 2149.

Included is a revision of the safety evaluation to address the use of a temporary crane to remove the ESW Valve House access hatches. This heavy load evaluation for crane set up and removing the ESW Valve House access hatches does not include general crane operation, use or rigging.

The operation of the ESW System has been revised to reflect the throttling of the CCW Heat Exchanger Inlet Valves EF HV051 and 52 during cold lake conditions. This may occur in the train with the operating CCW Heat Exchanger EEGOLA and B to preclude over cooling of the CCW System. To assure adequate backpressure for components and valves throughout the ESW System, the SW System roturn valves EF HV039, 40, 41 and 42 shall be throttled to reduce the train flow by the same amount. This will provide approximately the same backpressure for the remaining system components.

The revised SW System design allows for the isolation of flow to the standby Central Chiller Condensers SGBOLA & B and the standby Turbine Generator Lube Oil Coolers ECFJIA & B. The design also provides full flow to the standby Condenser Vacuum Pump Seal Water Coolers ECGOLA, B & C. These flow adjustments will not adversely affect the flows and backpressures in the balance of the SW System as the backpressure orifices EA FE034 & 35 have been modified accordingly. Revision 3 requires 1 gpm of cooling water be supplied to each of the bearing jackets and stuffing box jackets (original design flow to each) with the remaining flow to be delivered to the seal coolers.

Other changes include: Reinstated penetration (OP321W0132) deleted by Revision 1. This is for two spare conduits. Revised penetrations (OP321S0124 and OP321S0125) closure detail to reflect grouted closure. Added a conduit support for conduit 6J3037 at column C-5. Pipe support

EA02-H014/425 was rotated to avoid field interference. Changes to drawings associated to the above changes and a reconciliation of the waterbox venting pump numbering between design drawings.

Safety Evaluation: As described in the USAR, the SW System has no safety design bases. The SW System will continue to provide sufficient cooling water for heat removal from nonessential auxiliary plant components and

from the ESW System components over the full range of normal plant operation and normal plant shutdown. This function will not be affected by the modification described in the primary document.

As described in the USAR, the ESW System serves several safety design bases. The ESW System provides sufficient cooling water for heat removal from essential plant equipment and is also a sufficient source of emergency makeup water.

FSW panel 2F157 houses the two remote flow indicators EF FI03 & 04. The panel is located in the Control Building basement. The flow indicators are used to monitor SW/ESW flow to the Ultimate Heat Sink when adjusting valves EF HV037, 38, 39, 40, 41 & 42 during system operation. Panel EF157 does not serve any safety function. The addition of the temperature indicators provides local indication of ESW System intake temperature. Since this function satisfies no safety requirement, and since the instrumentation comes into contact with no plant systems or components, their postulated failure will have no safety impact on the ESW System or any other system, component or structure.

It is acknowledged that the Motor Driven Feedwater Pump FAE02 seal will receive less cooling water flow than the original design basis flow of 10 gpm (each) due to the hydraulics in the current piping configuration. The pump manufacturer has stated that the cooling water flow delivered to each cooler need only be enough to cause the feedwater exiting the seal cooler to be maintained at 160 degrees Fahrenheit or less. Operations has been requested to monitor the feedwater temperature exiting the seal coolers when the motor driven feedwater pump is in operation and perform appropriate maintentice based on the results. Therefore, the operation of the motor driven feedwater pump with less than design cooling flow to the seal cooler will not adversely affect the safe operation of the station.

Crane set up and use at the ESW Valve House to remove the concrete access hatches could impose loads on nearby equipment, structures, and systems that have not been previously evaluated. Items that are important to safety that could have been affected are the ESW underground piping, ESW duct bank, and ESW Valve House. The Diesel Generator Building will not be affected. Evaluation of the proposed crane use concluded that components, structures, or systems that are important to safety would not be adversely affected when the crane is used within the limitations imposed by the engineering disposition.

In consideration of the above evaluation and since accident cooling water flow rates to safety related components are not reduced and the same accident and safe shutdown heat removal capacities are achieved, the proposed change does not involve an increase in the probability or consequences of any accident previously evaluated. Additionally, no malfunctions of equipment important to safety are affected.

The possibility that an accident or malfunction of equipment important to safety of a different type than previously evaluated in the USAR is not created. The modifications described herein do not affect any Technical Specifications or associated bases.

PLANT MODIFICATION REQUEST: 02151 Revision: 1

Title: Condensate Storage Tank Sample Connection Addition

Description: This modification adds a permanent condensate storage tank (CST) grab sample connection to replace the configuration initiated as a temporary modification. The new connection will be located directly on the CST and will ensure representative samples of the tank without disturbing the system configuration.

Safety Evaluation: The Condensate Storage and Transfer System provides initial fill and makeup water to the Condensate System, the Feedwacer System, the Steam Generators, and the Condenser Hotwell. The CST provides no safety function. During normal operation the CST serves to supply or receive condensate, as required by the Condenser Hotwell Level Control System. The tank is also a norseismically designed source of water to the Auxiliary Feedwater System. Moreover, the safety grade source of water to the auxiliary feedwater pumps is the two trains of the Essential Service Water System (ESW). Thus a failure of the source of auxiliary feedwater from the CST will not impact the function of auxiliary feedwater since both sources of water remain available and switchover to ESW is redundant, automatic and safety grade. The addition of the sample connection to the CST does not pose a threat to the tank volume upon failure.

The possibility of an accident or malfunction of equipment important to safety of a different type than previously evaluated in the USAR has not been created.

This modification does not result in a reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 02305 Revision: 2

Title: Containment Purge System Spectacle Flange Separation

Description: This modification involves separating the spectacle flange on the Containment Purge System, allowing Maintenance to manage the two spacers (blind and open) better. The blind spacer is installed in place during plant Modes 1, Power Operation, 2, Startup, 3, Hot Standby, and 4, Hot Shutdown. The open spacer is insert=d during Mode 5, Cold Shutdown, and Mode 6, Refueling.

Safety Evaluation: The Containment isolation values still maintain the ability to automatically shut in the event of a Containment Purge Isolation Signal. This design charge does not affect the fit or function of the spectacle flanges. The form is changed to allow for better management of the two spacers. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

There is no possibility that any accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

This change does not affect the ability to conduct surveillance inspections and leak rate tests as required in the Technical Specifications. There is no reduction in the margins of safety defined in the Technical Specifications.

PLANT MODIFICATION REQUEST: 02425 Revision: 0

Title: Security System Closed Circuit Television Installation

Description: This modification involves the addition of closed circuit television (CCTV) cameras to the Security Surveillance System. A majority of the modification will affect areas in the Security Building and at the Protected Area Boundary. The modification requires the installation of a field routed conduit in the Auxiliary Building in the lower cable spreading room.

Safety Evaluation: The installation of the aforementioned equipment moets all applicable installation requirements for electrical and civil/structural codes and standards. Therefore, since the system is not safety related and the installation meets all applicable codes, the probability of occurrence of a previously evaluated accident, and its consequences, is not increased. The installation of additional CCTV cameras does not adversely affect any safety related systems, components, or structures. Therefore, the probability of occurrence of a previously evaluated malfunction of safety related equipment, and its consequences, is not increased.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created. There is no reduction in the margin of safety as defined by the bases in any Technical Specification.

PLANT MODIFICATION REQUEST: 02471 Revision: 0

Title: Condensate Demineralizer System Modification

Description: This sh ification provides for several changes to the Condensate Deminera. System to enhance maintenance and operation of the system. These changes include.

1. The addition of plug valves AK V1000 and AK V1001 to the outlet of Acid Day Tank TAK05 and Caustic Day Tank TAK06, respectively, facilitating isolation and Y-strainer maintenance. Heat tracing is to be revised due to piping configuration change.

2. Rerouting conductivity cell AK-CE-401 effluent to discharge in the High Total Dissolved Solids (TDS) Transfer Tank THF05. Upstream of the cell, Waste Connection Tank Outlet Valve AK V010 and the quarter inch tubing is replaced with a 1 inch plug valve and 1 inch piping to eliminate a clogging point and to facilitate easier flushing.

3. The rework of the sample lines to conductivity cells associated with the resin separation and cation regeneration tank, anion regeneration tank, and the resin mix and storage tank to prevent clogging of the sample tubing and/or cells. This includes addition of Enline filters and valves. A three way valve and drain line with valve at the bypass part of the filter is used to backflush the lines as required using demineralized water. Also, the incoming line to the filter shell is upgraded to 1/2 inch to prevent clogging of the sample lines.

4. The installation of piping for the discharge of various wastewaters from the Turbine Building sumps to the high TDS collector tanks and provides a method of neutralizing the sump wastewaters. Piping is installed between the discharge of the oil interceptor pumps and the high TDS collector tanks. An interlock is provided between the oil interceptor pumps and the high TDS transfer pumps to assure that deadheading of the oil interceptor pumps does not occur with both pumps aligned to the high TDS collector tanks. Sump Pump Discharge Valve LE V068 is changed to a globe valve for procedural throttling. Changes to USAR inv⁻ ve revising USAR figures 9.3-5 sheet 4, 10.45 sheets 2, 3 and 10.4-12 sheets 1, 3 to reflect the associated drawing changes.

5. The addition of platforms between Resin Separation and Cation Regeneration Tank TAK02, the Anion Regeneration Tank TAK03, and Resin Mix and Storage Tank TAK04. This facilitates the monitoring of the tank levels through the tanks' sight glasses. Ladders will be provided on both sides of the platform between TAK02, 03. There are field

interferences between TAK03, 04 so a ladder is located on the west side only.

6. The addition of a level gauge to High TDS Transfer Tank THF05, providing visual backup for calibration of existing monitors. Addition of level transducers to Caustic Day Tank TAK06 and Acid Day Tank TAK05 which had no level indication other than a high/low level alarm. Modification of Condensate Demineralizer Bypass Valve AD HV028 circuit so that the valve can be throttled. Revision of the Hi-Level Alarm setpoint for High TDS Collector Tanks THF01A and THF01B, providing additional time for operator action to preclude tank overflow. Changes to USAR involve figures 10.4-5 and 10.4-12 to reflect the addition of the level indicators as identified on their associated drawings.

Safety Evaluation:

1. This modification, located in the Turbine Building, does not impact the function of the system to perform as designed.

2. This modification, located in the Turbine Building, will not alter the function of the conductivity cell or the system from performing as designed.

3. These modifications are all related to the Condensate Demineralizer System which is not safety related and does not serve any safety design function as described in the USAR.

4. The USAR states that the Condensate Demineralizer System serves no safety function and has no safety design bases. The Secondary Liquid Waste System, as described in the USAR, is not safety related and its failure does not compromise any safety related system or prevent safe shutdown.

5. No safety related equipment is located in this vicinity to be impacted by failure of the platforms. The platforms have no impact on safety and the shutdown of the plant. The platforms are located in an area outside the scope of the fire protection review and will not impact the fire protection features described in the USAR applicable to the Turbine Building.

6. These modifications are made to non-safety related systems and do not serve any design function as described in the USAR.

Based on the above, the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated is not increased; the possibility for an accident or malfunction of a different type than any evaluated previously is not created; and the margin of safety as defined in the bases for any Technical Specification is not reduced. PLANT MODIFICATION REQUEST: 02473 Revision: 0

Title: Main Warehouse Fire Protection "pgrade

Description: This modification involves two separate activities required to meet the National Fire Protection Association (NFPA) Code. The first modification is to extend water flow alarms via a pressure switch to the Control Room Panel KC008 for each of the three existing legs of the warehouse sprinkler system. The second Bodification is the addition of sprayed insulation (to create a one hour fire Darrier) to building columns inside and adjacer: to storage racks. This is a passive fire barrier requiring no main pance.

Safety Evaluation: The main warehouse fire detection and alarm system lacks the potential to increase the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously e aluated in the USAR.

There is no possibility that an accident or malfunction of equipment important to safety of a different type than evaluated previously in the USAR may be created.

This system is not addressed in the Technical Specifications and these changes do not reduce the margin of safety.

PLANT MODIFICATION REQUEST: 02487 Pevision: 1

Title: Reactor Head Shield Modification

Description: This modification revision allows for the installation and use of the Reactor Vessel Head Shield System. The Reactor Vessel Head Shield System consists of a permanent shield support structure, removable lead wool shield panels and three storage containers for the shield panels. The carbon steel shield support structure consists of three sets of support brackets, which clamp to the three head lift columns, and three 120 degree I-beam arc sections which attach to the support brackets. The lead wool shield panels are hung from the I-beam arc sections. The total shield static weight load is transferred as a compressive load through the support brackets onto the jam nuts located on top of the clevises attaching the lift columns to the vessel head. In addition, this revision allows the manufacture of two replacement tie rods which were discovered to have damaged threads on one end and revise the vendor drawing to indicate that one spacer plate rather than two is required for installation of the head shield support bracket.

Prior to Reactor stud tensioning for each refueling, the three storage containers are lowered with the polar crane to the base of the vessel

head. Then, using the stud tensioner hoists, the shield panels are hoisted from the storage containers and hung on the permanent support structure I-beam arc sections. The shield remains in place while the head is transferred to/from and resting on its storage stand. Following vessel reassembly, the shield panels are removed from the permanent support structure and placed into the storage containers using the stud tensioner hoists. The polar crane is used to remove the loaded storage containers from the Reactor Cavity. Finally, the storage containers are removed from Containment.

Safety Evaluation: The head shield serves no safety function. However, the failure of the permanent support structure (without shield panels attached) during a seismic event could potentially degrade other items which are required to assure safe shutdown capability, required for integrity of the Reactor Coolant System boundary or are required to mitigate consequences of the seismic event. Therefore, the Reactor Vessel Head Shield's permanent structure was designed to maintain its structural integrity under seismic conditions and was classified as noncategory I seismic II/I.

The Head Shield System support structure is designed to maintain structural integrity (without shield panels installed) during a safe shutdown earthquake event to prevent the possibility of the structure from adversely mpacting equipment or components around the Reactor Head. All structural components important to safety that would encounter higher loads and corresponding higher stresses have been evaluated and found acceptable. From a review of the USAR, the Head Shield System does not affect the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

The possibility of a different type of an accident or malfunction of equipment important to safety from any evaluated previously in the USAR will not be created by the Head Shield System.

The Head Shield System installation does not affect any margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 02489 Revision: 2

Title: Emergency Shower And Eyewash Station Removal and Relocation

Description: The shower and eyewash for the battery storage area located adjacent to the Instrumentation and Control Shop, and the portable unit at the Health Physics (HP) laundry pad are no longer required. The shower and eyewash for the battery storage area is no longer required because the battery storage area has been converted to an engraving shop and no longer stores batteries. Also, the portable unit at the HP laundry pad is no longer required since laundry is not done on site any longer.

This Revision deletes the portable unit at the Health Physics laundry pad. The shower and eyewash for the battery storage area hat been relocated to the north side of the Water Treatment Plant between the acid and caustic truck connections and the diversion tank.

Safety Evaluation: Removal of the portable unit from the laundry pad does not pose a safety concern. The station relocated to the Water Treatment Plant is piped to the potable water supply, which serves no safety function. There is no increase in the probability of occurrence and the consequences of a malfunction of equipment important to safety previously evaluated in the USAR.

Forces which would result from the normal use or accidental conditions of this unit are negligible and do not introduce new parameters for the evaluation of safety related equipment. Therefore, there is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

The margin of safety as defined in the bases for any Technical Specification is not reduced.

PLANT MODIFICATION REQUEST: 02493 Revision: 0, 1

Title: Reactor Cavity Permanent Ring Seal

Description: During each refueling outage, the neutron shield (water cans) is required to be removed and a temporary seal ring around the Reactor in the cavity area installed before the Reactor Cavity can be flooded with water. This modification involves the installation of an Integral Permanent Reactor Cavity Seal/Neutron Shielding System. Installation of this system will eliminate the need to remove and reinstall the neutron shield water cans and seal ring during each outage, thereby reducing maintenance labor, downtime, and exposure.

Safety Evaluation: Because this modification focuses on the removal of the neutron shield and the installation of the seal ring separately, the evaluation will be summarized separately.

The existing neutron shield grating platform is a non-Quality item, howe it is designed to preclude it from becoming a missile in the event a postulated Loss Of Coolant Accident (LOCA) within the Reactor Cavity Removal of this platform will not increase the probability of any previously evaluated accident or its consequences. The removal of the platform does not involve any equipment important to safety so it does not increase the probability of occurrence and the consequences of any previously evaluated malfunction of equipment important to safety.

The permanent cavity seal ring (PCSR) is designed as a replacement for the standard pneumatic seal assembly that was manually installed for each refueling and subsequently removed for plant operation. The PCSR remains in place during all plant operations and during refueling, and performs its sealing function in a passive manner. The design condition for the PCSR is plant Mode 6, Refueling. The materials of construction that come in contact with refueling water are considered acceptable for use in the Reactor Coolant System. A radiation shielding analysis was performed to support the permanent cavity seal design. Shield effectiveness was tested against the 12 inch thick water shield defined in the design specification document. The results of the study indicate that the effectiveness of the shield material specified for the permanent cavity seal assembly for both neutron and gamma rays is superior to the shielding provided by the 12 inch water shield. Furthermore, the boron loading of the materials will serve to reduce the activation of the shield itself as well as of the structural material in the vicinity of the shield to levels below that observed with the base case.

Although the PCSR is classified as a non-nuclear safety class item, it has the potential to affect safety analyses given that it is a change, which is in place during all modes of operation. There is no direct effect on the LOCA Emergency Core Cooling System (ECCS) analyses. Although the Containment backpressure transient for the LOCA ECCS analysis can be perturbed by a change in the Containment net free volume

(benefit for volume reduction) or by a change in the Containment heat sink (penalty for additional heat sink), the impact of the PCSR on such concerns is very minor and offsetting in comparison to the total Containment response. There is no direct effect on the calculation of post-LOCA long term core cooling, Hot Leg switchover time, or LOCA hydraulic forcing functions for reactor internals or loop piping. LOCA mass and energy releases (specifically for the reactor vessel safe-end weld breaks) and rod ejection mass releases are also not impacted. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined by the bases in any Technical Specification.

PLANT MODIFICATION REQUEST: 02495 Revision: 0

Title: Service Air Compressor And Dryer Replacement

Description: This modification provides for the future replacement of Service Air System Compressor CKAOLA and the Service Air System instrument air dryer train which incorporates the necessary prefilters, afterfilters, and dryers needed to remove moisture and particulate from the processed instrument air. This modification provides for the installation of three isolation valves and bypass points which will provide for rerouting compressed air around the existing dryer train through temporary rental dryers and back into the Instrument Air System. This modification will allow for later replacement of air compressors and dryers without requiring an instrument air or plant outage.

Safety Evaluation: The Service Air System is non-safety related. Neither the installation of the three air dryer bypass valves nor the eventual replacement of Air Compressor CKAOLA and the filter-dryer trains will increase the probability of a previously evaluated USAR accident. Although the Service Air System supplies instrument air to safety related instrumentation systems, these systems are fail-safe with respect to a Service Air System failure. The probability of failure and the consequences of failure of the Service Air System is not increased with this modification. The safety functions of safety related instrumentation will not be impaired or threatened by any conceivable failures of the modified Service Air System.

Although the capacity and performance of the Service Air System will ultimately be enhanced, its basic design intent and specification requirements remain intact and any conceivable problem that arises with the Service Air System will have no bearing on the fail-safe safety related system components which a e linked to the Service Air System.

The Technical Specifications do not directly address the Service Air System. Based on the fail-safe USAR commitments for the interfacing plant control systems and the Service Air System enhancements provided by this modification, no reduction in the margin of safety results.

PLANT MODIFICATION REQUEST: 02514 Revision: 0

Title: Electronic Article Surveillance Power Supply

Description: This modification provides a power supply in the Security Building for a newly installed Electronic Article Surveillance System. New cable and conduit is included in the installation and all electrical and civil/structural codes are met. Safety Evaluation: The modification is completed inside the Security Building which does not contain any safety related equipment or structures. Therefore, the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety is not increased.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any previously evaluated in the USAR may be created.

The margin of safety as defined by the bases for any Technical Specification is not reduced.

PLANT MODIFICATION REQUEST: 02586 Revision: 1

Title: Standby Diesel Engine Signal Generator Replacement

Description: The Syncro-Start Model ESGBC Signal Generator Tachometer is no long r available and is being replaced with a Dynalco PG100-1 Signal Generator. The signal generator senses engine speed and sends signals to the ESSB speed switch on backup Diesel Generators KJ-SE-0066 and 0166 which in turn initiates the appropriate actions to start-up and establish steady state operation.

Safety Evaluation: The PGLUO-1 will yield slightly higher signal voltages than the existing ESGBC unit which will result in an increased switching accuracy of the ESSB. Signal frequencies will be equivalent to those output by the ESGBC. Additionally, the Dynalco signal generator has been qualified to operate over the SNUPPS seismic response spectra while experiencing zero period acceleration levels on an order of a magnitude larger than the largest peak acceleration for the required response spectra.

An increase of approximately 3 pounds will be seen by the system but the structural integrity of the system will not be degraded. Therefore, system performance will not be adversely affected and the probability and consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR will not be increased.

The PG100-1 consists of fewer components as compared to the ESGBC and consequently, fewer modes of failure are present. The signal generator tachometer's original critical characteristics will be met by the new replacement component and as a result, the possibility of an accident or malfunction of equipment of a different type than any previously evaluated in the USAR will not be created.

Because of the increase in output voltage and the reduction of subcomponents, the margin of safety as defined in the Technical

Specification Bases is not reduced by the replacement of the ESGBC with the PG100-1.

PLANT MODIFICATION REQUEST: 02685 Revision: 1

Title: Low Pressure Feedwater Heater Level Control

Description: This modification revision relocates the level controllers for Low Pressure Feedwater (FW) Heaters EAD04A, B & C to achieve the configuration (close to the drain cooler inlet) recommended by the FW heater manufacturer. To facilitate installation, two single level alarm switch units are being replaced with a dual level switch, and the level controller is being reinstalled in the resultant spare level switch location. The inherent level differential within the low pressure FW heaters in conjunction with the originally installed location of the level controllers resulted in an insufficient level at the FW heaters' drain cooler inlets. This allowed steam to enter the drain cooler section of the FW heater decreasing efficiency and inducing potentially damaging vibration in the FW heater tubing.

Safety Evaluation: All components affected by this modification are classified as non-safety related. The affected piping has been reanalyzed and pipe supports have been modified or added as necessary. These changes will ensure that sufficient liquid level is maintained in the FW heaters, improving efficiency and eliminating damaging effects of steam passing through the drain cooler and downstream piping and valves.

The operability and reliability of the FW Heater System will be improved, thus there will be no adverse effect on the secondary system heat removal capabilities described in the USAR. The existing level controllers are reused and the replacement dual level switches are of the same manufacturer type, and operating principles as the original level switches. Therefore, no new failure mechanisms are introduced.

There are no Technical Specification Bases applicable to the low pressure FW heater levels.

PLANT MODIFICATION REQUEST: 02725 Revision: 1

Title: Auxiliary Feedwater Pump Turbine Drain Line Cap

Description this modification changes the appropriate drawings to show a cap on a cleanout connection off the low point section of the steam

discharge line of the Auxiliary Feedwater Pump Turbine KFC02. This cap was found installed and is shown on the isometric drawing of this line.

Safety Evaluation: The portion of the line with the cap is non-safety related and is located downstream of a normally closed isolation value. This cap nor its failure can indirectly affect safety related equipment. Therefore, this modification does not affect any accident or malfunction previously evaluated in the USAR.

No different type of accident or malfunction is created by this modification.

There are no margins of safety defined in the Technical Specifications which could be affected by the addition of this cap.

PLANT MODIFICATION REQUEST: 02732 Revision: 0

Title: Steam Generator "C" Drain Line Connection Relocation

Description: This modification relocates the Steam Generator C drain line connection at the Steam Generator C blowdown line at approximately 6 1/2 feet south of its present location in order to preclude sediment accumulation in the drain line that has previously resulted in line blockage. Since the drain line connection itself is an intermediate pipe break location, _...e pipe break BM03-03 is also relocated to the new drain line location.

Safety Evaluation: This modification is in the safety related portion of the Steam Generator Blowdown System inside containment. This modification has been designed in accordance with ASME Boiler and Pressure Vessel Code Section III, Class 2 requirements and has been stress analyzed to demonstrate the ability of the subject blowdown line to maintain its integrity after a safe shutdown earthquake. This modification was determined to not affect the ability of the Steam Generator Blowdown System to perform its design and safety functions and does not impact any other safety related system.

A walkdown was conducted to ensure that the relocated pipe break does not result in jet impingement of any safety related components. It was verified that there is no adverse jet impingement on any safety related equipment. Based on the above, the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR is not increased.

The possibility for an accident or malfunction of equipment important to safety of a different type than any evaluated previously in the USAR is not created.

The subject piping relocation does not result in a reduction in the margin of safety as defined in the Technical Specifications.

PLANT MODIFICATION REQUEST: 02743 Revision: 0

Title: Containment Hydrogen Analyzer Flow Meter Replacement

Description: This modification replaces Brooks Flow Meters FI-1, -2, FIC-1, -2 with Matheson FM-1050 flow meters and high performance valves. It also replaces Brooks Flow Meter FIC-3 with a flow meter having increased range. This modification will provide increased range and improved control of sample flow, and allows for revision of the instruction manual to better describe operating characteristics and maintenance of the hydrogen analyzers.

Safety Evaluation: The Containment Hydrogen Analyzers are used to monitor combustible gases during a design basis Loss Of Coolant Accident (LOCA). The Matheson flowmeter has the same configuration as the Brooks flowmeter and is therefore a direct replacement. The accuracy of the equipment is an actual, installed, vendor published performance of +5%. Review of the accuracy requirements stated in ANSI/ANS 4.5-1980 finds that "...Information display channel accuracy should be within +10% of span..." (Section 6.3.5.3) for monitoring Reactor Containment Hydrogen Concentration. The change in accuracy does not degrade the ability of the operators to react to combustible gases in Containment caused by a design basis LOCA. Based on this discussion, the installation of the new flowmeter does not involve an increase of occurrence or consequences of any accident or malfunction of equipment important to safety previously evaluated in the USAR.

The changes being made do not change or add different functions or abilities to the equipment. The flowmeters are exact replacements so there is no possibility that a different type of an accident or malfunction of equipment important to safety than previously evaluated in the USAR will be created.

There is no reduction in the margin of safety as defined in the Technical Specifications.

PLANT MODIFICATION REQUEST: 02780 Revision: 1

Title: Surgeline Stratification Analysis

Description: This modification is for the re-analysis of the Pressurizer surge line to determine the effects of thermal stratification. Instruments were installed to monitor Pressurizer surge line cemperature, movement (thermal growth) and associated plant parameters. Revision 0 of this modification included a disposition for a spring size change for a pipe support. Engineering evaluated the pipe movements based on data collected from measuring devices and found that the existing spring size was acceptable.

Safety Evaluation: The instrumentation weight is negligible and will not add to the piping stresses as analyzed or create an adverse II/I condition. The installation of the instrumentation will not degrade the design, material, or construction standards applicable to the surge line. Adding the instrumentation will not change or prevent actions described or assumed in a small or large break Loss Of Coolant Accident. It will not compromise the fission product barrier associated with the Reactor Coolant Pressure Boundary, specifically, the Pressurizer and Reactor Coolant System piping boundaries remain unaffected. Therefore, there is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

The subject change will not change existing plant operating procedures and will not set up a different set of conditions caused by a new failure. There is no possibility that an accident or malfunction of equipment important to safety different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 02832 Revision: 1

Title: Reactor Coolant Pump Underfrequency Relay

Description: This modification allows the temporary use of a replacement capacitor on the underfrequency relay power supply module for Reactor Coolant Pump (RCP) A. The manufacturer of the original capacitor was Sprague and the manufacturer of the replacement capacitor is IEC. These capacitors are commercially available standard electronic components. This revision clarifies the design basis of the RCP underfrequency relay.

Safety Evaluation: The original capacitor and replacement capacitor are both 100 microfarad, 50-volt electrolytic capacitors and are functionally equivalent. The Reactor trip on RCP underfrequency is provided in addition to the RCP undervoltage Reactor trip and the low primary coolant flow Reactor trip to promptly trip the Reactor, protecting it from postulated fuel damage as a result of a complete loss of forced Reactor coolant flow event. The Reactor is adequately protected from underfrequency events by the low primary coolant flow Reactor trip for frequency decay rates up to 2.5 hertz per second. Therefore, accident and safety related equipment malfunction probabilities and their consequences are not increased.

Accident and safety related equipment malfunction possibilities of a different type than those previously evaluated in the USAR will not be created.

Technical Specification safety margins remain unaffected.

PLANT MODIFICATION REQUEST: 02871 Revision: 0

Title: Moisture Separator Drain Tank Drainline Replacement

Description: This modification was created as a pre-Refuel IV outage evaluation for a change of piping material from carbon-steel to lowalloy steel if replacement is required for the drainlines from moisture separator drain tanks A through D to the heater drain tank. Abnormal erosion/corrosion (E/C) was evident in three of the four drainlines during the Refuel III outage (1988) but the observed E/C rate allowed continued service at least through to Refuel IV outage (1990) thereby allowing use-as-is. Piping was re-examined prior to and during the Refuel IV outage. Replacement of pipe sections is dependent on examination data.

Safety Evaluation: The subject piping is non-safety related and is located in the Turbine Building. Probability for failure of subject piping components is not increased upon replacement of carbon-steel material with low-alloy steel material which is more resistant to E/C. Consequences of any piping failure are not increased since only piping materia! is changed -- piping layout/support and internal fluid parameters are not altered.

Piping configuration remains the same. The modification only involves a change to low-alloy material, which is more resistant to E/C than carbon-steel material. Therefore, there is no possibility that an accident or malfunction of a different type from any evaluated previously in the USAR may be created.

No margin of safety in the Technical Specifications pertains to the subject piping.

PLANT MODIFICATION REQUEST: 02873 Revision: 0

Title: Moisture Separator/Reheater First Stage Reheater Drainline Replacement

Description: This modification was created as a pre-Refuel IV outage evaluation for a change of piping material from carbon-steel to lowalloy steel if replacement is required for the drainlines from first stage reheater drain tanks A through D to high pressure heaters 6A and 6B. Abnormal erosion/corrosion (Σ/C) was evident in three of the four drainlines during the Refuel III outage (1988) but the observed E/C rate allowed continued service at least through to the Refuel IV outage (1990) thereby allowing use-as-is. Piping was re-examined during the Refuel IV outage. Replacement of pipe sections is dependent on examination data.

Safety Evaluation: The subject piping is non-safety related and is located in the Turbine Building. Probability for failure of subject piping components is not increased upon replacement of carbon-steel material with low-alloy steel material which is more resistant to E/C. Consequences of any piping failure are not increased since only piping material is changed -- piping layout/support and internal fluid parameters are not altered.

Piping configuration remains the same. The modification only involves a change to low-alloy material, which is more resistant to E/C than carbon-steel material. Therefore, there is no possibility that an accident or malfunction of a different type from any evaluated previously in the USAR may be created.

No margin of safety in the Technical Specifications pertains to the subject piping.

PLANT MODIFICATION REQUEST: 02877 Revision: 0, 1

Title: Sullair Air Compressor Addition

Description: A Sullair Air Compressor is being added to the Compressed Air System. This modification provides as-built and interim work-inprogress drawings for the addition of the Sullair Air Compressor to the Compressed Air (KA) System.

Safety Evaluation: This modification involves revision of documents to note the addition of the Sullair Air Compressor skid. These revisions do not affect any new or previously evaluated accidents or malfunctions of safety related equipment and does not reduce any margin of safety.

PLANT MODIFICATION REQUEST: 02909 Revision: 0 Title: High Pressure Feedwater Heater Drainline Replacement

Description: This modification was created as a pre-Refuel IV outage evaluation for a change of piping material from carbon-steel to stainless-steel if replacement is required for the drainline from high pressure heater 7A to high pressure heater 6A. Abnormal erosion/corrosion (E/C) was evident in this drainline during the Refuel III outage (1988) but the observed E/C tate allowed continued service at least through to the Refuel IV outage (1990) thereby allowing use-as-is. Piping was re-examined during the Refuel IV outage. Replacement of pipe sections is dependent on examination data.

Safety Evaluation: The subject piping is non-safety related and is located in the Turbine Building. Probability for failure of subject piping components is not increased upon replacement of carbon-steel material with stainless-steel material which is more resistant to E/C. Consequences of any piping failure are not increased since only piping material is changed -- piping layout/support and internal fluid parameters are not altered.

Piping configuration remains the same. The modification only involves a change to stainless steel, which is more resistant to E/C than carbonsteel material. Therefore, there is no possibility that an accident or malfunction of a different type from any evaluated previously in the USAR may be created.

No margin of safety in the Technical Specifications pertains to the subject piping.

PLANT MODIFICATION REQUEST: 02911 Revision: 0

Title: Hydrogen Analyzer Sample Tubing Heat Trace Wire Replacement

Description: This modification involves the replacement of the heat tracer wire in the Hydrogen Analyzer (SGS02A) sample lines. The length of the wire will be extended beyond the hydrogen analyzer cabinet to the Manual Inlet Isolation Valve GS V0007. The sample line slopes back towards the valve, which is left open suring normal operation, thus preventing the accumulation of condensation.

Safety Evaluation: The additional heat trace and insulation within the analyzer increases the reliability of the system by maintaining the analyzer internal tubing and switch copperwell at the same temperature as that of the external tubing, which enables the temperature switches to turn the circuit on and off as required. This additional heat trace and insulation within the cabinet does not adversely affect the seismic qualification and no adverse effects on the electrical load have been generated. Therefore, accident and safety related equipment malfunction probabilities and consequences previously evaluated in the USAR are not increased.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined by the bases in any Technical Specification.

PLANT MODIFICATION REQUEST: 02912 Revision: 0

Title: High Pressure Feedwater Heater Drainline Replacement

Description: This modification was created as a pre-Refuel IV outage evaluation for a change of piping material from carbon-steel to stainless-steel and low-alloy steel if replacement is required for the drainlines from high pressure heaters 6A and 6B to the heater drain tank. Abnormal erosion/corrosion (E/C) was evident in both drainlines with two sections requiring replacement during the Refuel III outage (1988). Replacement of pipe sections is dependent on examination data.

Safety Evaluation: The subject piping is non-safety related and is located in the Turbine Building. Probability for failure of subject piping components is not increased upon replacement of carbon-steel material with low-alloy steel material and stainless-steel material which are more resistant to E/C. Consequences of any piping failure are not increased since only piping material is changed -- piping layout/support and internal fluid parameters are not altered.

Piping configuration remains the same. The modification only involves a change to stainless steel and a low-alloy material, which is more resistant to E/C than carbon-steel material. Therefore, there is no possibility that an accident or malfunction of a different type from any evaluated previously in the USAR may be created.

No margin of safety in the Technical Specifications pertains to the subject piping.

PLANT MODIFICATION REQUEST: 02913 Revision: 0

Title: High Pressure Feedwater Heater Drainline Replocement

Description: This modification was created as a pre-Refuel IV outage evaluation for a change of piping material from carbon-steel to stainless-steel for at least one replacement for the drainlines from high pressure heaters 4A, 4B and 4C to high pressure heaters 3A, 3B and 3C. Abnormal erosion/corrosion (E/C) was evident in all drainlines with two replacements required during the Refuel III outage (1988). Replacement of pipe sections is dependent on examination data obtained during the Refuel IV outage.

Safety Evaluation: The subject piping is non-safety related and is located in the Turbine Building. Probability for failure of subject piping components is not increased upon replacement of carbon-steel material with stainless-steel material, material which is more resistant to E/C. Consequences of any piping failure are not increased since only piping material is changed -- piping layout/support and internal fluid parameters are not altered.

Piping configuration remains the same. The modification only involves a change to stainless steel, which is more resistant to E/C than carbonsteel material. Therefore, there is no possibility that an accident or malfunction of a different type from any evaluated previously in the USAR may be created.

No margin of safety in the Technical Specifications pertains to the subject piping.

PLANT MODIFICATION REQUEST: 02916 Revision: 0

Title: High Pressure Feedwater Heater Drainline Replacement

Description: This modification was created as a pre-Refuel IV outage evaluation for a change of piping material from carbon-steel to stainless-steel if replacement is required for the drainlines from high pressure heaters 3A, 3B and 3C to high pressure heaters 2A, 2B and 2C. Abnormal erosion/norrosion (E/C) was evident in all drainlines during the Refuel III outage (1988) but the observed E/C rate allowed continued service at least through to the Refuel IV outage (1990) thereby allowing use-as-is. Piping was re-examined during the Refuel IV outage. Replacement of pipe sections is dependent on examination data.

Safety Evaluation: The subject piping is non-safety related and is located in the Turbine Building. Probability for failure of subject piping components is not increased upon replacement of carbon-steel material with stainless-steel material which is more resistant to E/C. Consequences of any piping failure are not increased since only piping material is changed -- piping layout/support and internal fluid parameters are not altered.

Piping configuration remains the same. The modification only involves a change to stainless steel, which is more resistant to E/C than carbonsteel material. Therefore, there is no possibility that an accident or malfunction of a different type from any evaluated previously in the USAR may be created.

No margin of safety in the Technical Specifications pertains to the subject piping.

PLANT MODIFICATION REQUEST: 02921 Revision: 0, 1

Title: Exciter Bearing Air Supply

Description: This modification provides for the permanent installation of the service air line routed to the Exciter bearing seals that was initially installed as a temporary modification. The modification also provides for the revision to design drawings to incorporate the service air line. Revision 1 provides a revision to the safety evaluation.

Safety Evaluation: The estimated maximum air consumption with the plant in operation is approximately 1.5 cfm per bearing. This quantity of air is inconsequential to the Service Air System. The added lines and associated components, valve, regulators and piping/supports are installed on non-safety related, non-II/I piping. The installation of this piping does not present any II/I concerns since the added piping is in the Turbine Building and is not over or near any equipment important to safety. The added service air lines and associated components are non-safety related, non-II/I, and do not affect safety related portions of any system. Therefore, the probability of occurrence and the consequences of a previously evaluated accident or malfunction are not increased.

Failure or malfunction of the added piping and components will not affect the safety related portion of any system. Therefore, the possibility of an accident or malfunction of a different type than previously evaluated has not been created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 02935 Revision: 0

Title: Civil Drawing Updates

Description: This modification releases civil drawings which were revised to resolve drawing discrepancies. These drawings were revised to reflect existing plant design.

Safety Evaluation: None of these drawing revisions involve any physical changes to the facility. These drawing revisions only incorporated previously dispositioned plant generated documents and/or corrected discrepancies. Therefore, previously evaluated accidents and malfunctions remain unaffected.

PLANT MODIFICATION REQUEST: 02937 Revision: 0

Title: Mid-Loop Independent Level Indication

Description: This modification allows replacement of the previous midloop level instrumentation with a new design that features two independent level sensing loops. Each level sensing loop is electrically independent and consists of two instrument loops to measure Reactor Coolant System (RCS) level. One instrument loop measures wide range (WR) level and the other instrument loop measures narrow range (NR) level. Indication for pressurizer WR cold calibrated level and WR mid-loop level is provided at Main Control Board RL018. Indication for NR midloop level is provided at Main Control Board RL002. Instrument supports, instrument tubing and tubing supports are added in Containment. For the mid-loop level instrumentation, instrument tubing is installed from the top of the Pressurizer to the level transmitters and from the RCS Hot-Leg piping to the level transmitters. The current tubing run from the top of the Pressurizer to the level transmitters is used for one instrument sensing loop. For the Pressurizer level instrument loop BB-462, existing tubing is also used for the restoration of its original function.

The remaining tubing runs for mid-loop level sensing are added by this modification. Electrical cable is added in Containment, the Auxiliary Building, and the Control Buildings. Electrical penetrations ZNE291 and ZSE255 are used. Electrical conduit is added in Containment.

Safety Evaluation: A II/I Hazards review has been performed for the addition of instruments, instrument tubing, tubing supports, electrical cable, cable raceway and raceway supports. It has been determined that since all components except field routed tubing are designed/installed II/I and/or seismically no II/I hazard exists.

A seismic stress analysis was performed and it was determined that the stresses remain within acceptable limits of the appropriate codes. This analysis was also done on the Main Control Room panels to which new equipment is being added, the panels' seismic qualification does not change.

The mid-loop level instrumentation is non-safety related and the modification is not required for safe shutdown or to maintain RCS integrity. In consideration of the above it is concluded that the subject modification does not affect the ability of the RCS or Residual Heat Removal Systems to fulfill their design bases as described in the USAR. Therefore, this modification does not affect any accidents or malfunctions of equipment important to safety previously evaluated in the USAR.

This modification does not create a different type of accident or malfunction of equipment important to safety than evaluated previously in the USAR.

There is no reduction in the margin of safety as defined by the Technical Specification Bases.
PLANT MODIFICATION REQUEST: 02939 Revision: 1

Title: Target Rock Upgrade Kit Installation

Description: This modification revision allows for the installation of upgrade kits in the 14 Target Rock solenoid operated globe valves in service. The upgrade kit consists primarily of electrical components which have been qualified to the appropriate requirements. Installation of the upgrade kits will extend the maintenance interval to 10 years for O-rings and gaskets and 20 years for all other electrical items from the existing 5 and 10 year intervals now recommended.

Safety Evaluation: The installation of the upgrade kit is an enhancement to the valves. The nature of the modification has been to improve materials used for the components to enable them to function better and longer in an accident environment. The new components in the kit are qualified to the appropriate standards. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR is not increased.

The replacement components are similar in function and design to the existing components. The materials used for construction of the components has been changed to provide a higher level of confidence in the ability of the valve to perform its intended function. Therefore, a malfunction or accident of a different type from any previously evaluated in the USAR is not created.

The installation of new electrical components in the valve will not result in a reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 02947 Revision: 0

Title: Hydrogen Recombiner Heat Shrink Addition

Description: This modification involves the use of Raychem heat shrink material over the vendor supplied cable and cable conductors in Hydrogen Recombiners SGSOLA and SGSOLB. It also revises the applicable drawing to reflect the configuration and to insure that future installations will also use the heat shrink material for physical protection and environmental qualification reasons.

Safety Evaluation: Adding the heat shrink onto the hydrogen recombiner cables and conductors increases the reliability of the hydrogen recombiners. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined by the bases in any Technical Specification.

PLANT MODIFICATION REQUEST: 02948 Revision: 0, 1

Title: Steam Generator Stud Closure Assembly

Description: This modification allows for the replacement of bolts on the primary manway openings of the Steam Generators with studs, nuts, and washers. This modification is not mandatory and the present method of bolting for the fastener devices remains an acceptable alternate installation. To provide the preloading of the studs, the modification also allows for the loading to be performed by a hydraulic tensioner.

Safety Evaluation: Stud tensioning, as compared to torquing, as a means of establishing the preload in Steam Generator closure hardware minimizes galling, stud seizures and potential leakage. The replacement studs, nuts and washers require no modification of the covers, gaskets, or the threaded holes in the Steam Generators. The loads on the studs, nuts, washers, cover gaskets, and the Steam Generator have been evaluated as acceptable. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

There is no possibility that an accident or malfunction of eccipment important to safety which is of a different type than previously evaluated in the USAR may be created.

The stresses due to the preload on the stude and design loads of the Steam Generators were determined to be less than the allowable limits as specified in ASME Section III. There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 02952 Revision: 0

Title: Emergency Fuel Oil Level Indication

Description: This modification relocates non-safety clated instruments used for monitoring level in the emergency fuel oil storage tanks from the fuel tank vaults to inside the Diesel Generator rooms. This will improve accessibility and reduce failures crashed by excessive moisture in their original location.

A second set of non-safety related instruments on each tank is also eliminated, with their function now being performed by the aforementioned level instrumentation. This modification also requires a revision to the USAR to show the new configuration/location of the instruments.

Safety Evaluation: This modification only affects non-safe y related instrumentation. Therefore, there is no increase in the probability of occurrence and the consequences of an accident or safety related equipment malfunction previously evaluated in the USAR.

Accident and safety related equipment malfunction possibilities of a different type than those previously evaluated in the USAR will not be created.

Technical Specification safety margins remain unaffected.

PLANT MODIFICATION REQUEST: 02962 Revision: 0

Title: High Pressure Turbine Third Stage Extraction Pipeline Replacement

Description: This modification was created as a pre-Refuel IV outage evaluation for a change of piping material from carbon-steel to lowalloy steel if replacement is required in any of the four, parallel high pressure turbine third stage extraction pipelines. Abnormal erosion/corrosion (E/C) was evident in a vertical pipe section immediately downstream of a high pressure third stage extraction nozzle during the Refuel III outage (1988) but the observed E/C rate allowed continued service at least through to the Refuel IV outage (1990) thereby allowing use-as-is. Piping was re-examined during the Refuel IV outage. Replacement of pipe sections is dependent on examination data.

Safety Evaluation: The subject piping is non-safety related and is located in the Turbine Building. Probability for failure of subject piping components is not increased upon replacement of carbon-steel material with low-alloy steel material which is more resistant to E/C. Consequences of any piping failure are not increased since only piping material is changed -- piping layout/support and internal fluid parameters are not altered.

Piping configuration remains the same. The modification only involves a change to low-alloy material, which is more resistant to E/C than carbon-steel material. Therefore, there is no possibility that an accident or malfunction of a different type than evaluated previously in the USAR may be created.

No margin of safety in the Technical Specifications pertains to the subject piping.

PLANT MODIFICATION REQUEST: 02963 Revision: 0

Title: Steam Generator Feed Pump Warming Lines

Description: This modification provides for the relocation of restrictive orifices in Steam Generator Feed Pump (SGFP) warming lines to minimize length of piping subject to two-phase erosion/corrosion (E/C). Leak-throughs have occurred in SGFP warming lines in piping immediately downstream of the restrictive orifices and downstream isolation valves. The cause of these leck-throughs is abnormal two-phase E/C attributed to relatively high differential pressure across the components and subsequent flashing of liquid water.

Safety Evaluation: Subject piping is non-safety related and is located in the Turbine Building. Probability for failure of subject pipe sections is not increased upon relocation of the same restrictive orifices. Consequences of any piping failure are not increased since only minor changes in pipe layout/support are evident -- source fluid parameters are not altered.

The modification to the subject non-safety related pipelines will not create an accident or malfunction different from any previously evaluated in the USAR.

There are no margins of safety defined in the Technical Specification bases which could be affected by this modification.

PLANT MODIFICATION REQUEST: 02972 Revision: 0

Title: Demineralized Water Storage Degasifier Vacuum Pumps

Description: This modification provides an alternate vacuum for the demineralized water storage degasifier through line CG-003-HBD-18. This line is the suction header from the condensers to the condenser vacuum pumps. This alternate vacuum source will provide operating flexibility and help alleviate problems with the pumps that have prevented use of the degasifier skid.

Safety Evaluation: This modification does not affect any safety design bases or design basis accidents. Based on this, there is no increase in the probability of occurrence or consequences of an accident previously evaluated in the USAR. Additionally, no malfunctions of equipment important to safety are affected.

No different type of accident or malfunction than previously evaluated in the USAR is created.

There is no reduction in a margin of safety defined in the Technical Specifications.

PLANT MODIFICATION REQUEST: 02978 Revision: 1

fitle: ITT Barton Electro Hydraulic Actuators

Description: This modification allows the use of Model B-1 ITT Barton Electro Hydraulic Actuators in the Control Building Heating, Ventilation and Air Conditioning (HVAC) System.

Safety Evaluation: There are no changes to the fit or function of the Model B-1 Actuator. The improved hydraulic system and viton seals makes the actuator more reliable and extends the qualified life. A review of seismic design requirements determined that the ITT seismic testing for the damper actuators exceeded the requirements for the Control Building HVAC System valve actuators. Therefore, the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR is not increased.

The possibility for an accident or malfunction of a different type than any evaluated previously in the USAR is not created.

There are no margins of safety defined in the Technical Specification Bases which could be affected by this modification.

PLANT MODIFICATION REQUEST: 02984 Revision: 0

Title: Condensate Demineralizer Acid Day Tank Coating And Level Gauge Addition

Description: The subject modification allows the installation of a tubular glass level gauge and the application of a protective coating to Condensate Demineralizer Acid Day Tank TAK05.

Safety Evaluation: This modification will indicate tank level and aid in tank overfill prevention. It will also help extend the service life of the tank. The Condensate Domineralizer System serves no safety functions and has no safety design bases. ASME Section VIII Division 1 was used as the guideline for this design, however the tank is a noncode tank. Thus, the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated has not been increased.

The possibility of an accident or malfunction of equipment important to safety of a different type than previously evaluated in the USAR has not been created.

This modification does not result in a reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 02990 Revision: 0

Title: Recycle Holdup Tank Level Transmitter Calibration And Setpoints

Description: This modification recalibrates the recycle holdup tank level transmitters and revises the high alarm, low alarm, ad pump stop setpoints for both recycle holdup tanks. These changes are necessary as the existing span and setpoint design is based on a tank configuration where the lower instrument tap is located on the side of the tank.

Safety Evaluation: The affected transmitters and switches are neither special scope or safety related components. The Boron Recycle System (BRS) serves no safety design function. Failure of the BRS will not result in release of radioactivity in excess of established guidelines or prevent the Reactor from being shut down in the event of a design basis accident. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR will not be increased.

There is no possibility that an accident or malfunction may be created of a different type than any previously evaluated in the USAR. This modification has no impact on either the Technical Specifications or any associated bases.

PLANT MODIFICATION REQUEST: 02995 Revision: 0

Title: Closed Circuit Television Camera Housing Sunshields

Description: This modification adds sunshields to all outdoor closed circuit television (CCTV) camera housings, except the meteorological tower camera, to reduce the effects of snow and rain and to reduce the time the cameras are affected by the sun.

Safety Evaluation: The installation of sunshields on outdoor CCTV camera housings is not safety related and does not connect to, or affect the operation of any safety related equipment, component, or structure. Therefore, there is no increase in the probability of occurrence and the consequences of an accident or malfunction previously evaluated in the USAR.

There is no spatial or system interaction created by the installation of sunshields on GCTV housings that could affect safety related equipment or create the possibility of an accident or malfunction different from that which has already been evaluated in the USAR.

The modifications to the CCTV camera housings do not affect the margin of safety as defined in the bases for Technical Specifications and will not result in a reduction of that margin.

PLANT MODIFICATION REQUEST: 03012 Revision: 0

Title: Auxiliary Feedwater Pump Supply Drainline Modification

Description: This modification installs 3 inch drainlines near existing 1 inch drainlines to facilitate expeditious system draining. The drainlines are located on the Auxiliary Feedwater System side of the Essential Service Water System supply lines that feed the auxiliary feedwater pumps.

Safety Evaluation: The modification will not adversely affect the system function, operation, structural integrity, reliability, or regulatory commitments. The piping being modified is not necessary for Reactor coolant pressure boundary integrity. The piping being modified does assure both the capability to shutdown the reactor and maintain it in a safe condition, and the capability to prevent or mitigate the consequences of accidents. However, since the piping modification is designed to ASME Section III Class 3 requirements and therefore maintain the original design intent of the Auxiliary Feedwater System, it will not adversely affect these capabilities.

In addition, the modification does not affect any seismic, environmental, or equipment qualifications of any system, component, or structure. The modification does not affect the safety design basis of the Auxiliary Feedwater System as described in the USAR. Previously evaluated accidents and malfunctions of equipment important to safety are not affected by this modification.

The modification will not create an accident or malfunction which is of a different type than any evaluated previously in the USAR.

The modification will not reduce any margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03014 Revision: 2

Title: Radiation Monitor Controllers Label Change

Description: Revision 2 of this modification corrects the designators for the Main Steam System radiation monitor controllers and the auxiliary feedwater pump radiation monitor controller from "RI" to "RIC" on two USAR figures. Previous revisions corrected other applicable drawings and figures.

Safety Evaluation: The change involves revising some component numbers on two USAR figures to reflect existing configuration in the field. Thus, it will have no impact on any accident or equipment malfunction previously evaluated.

PLANT MODIFICATION REQUEST: 03017 Revision: 0

Title: Control Building Heating, Ventilation And Air Conditioning System Drawing Correction

Description: This modification revises and corrects discrepancies identified in the Control Building Heating, Ventilation and Air

Conditioning System (HVAC) instrument drawings and fire delineation drawings to reflect actual physical configuration.

Safety Evaluation: Habitability of the control room during a design basis accident will not be affected by this change. The capability to detect and alarm for increased dust loading in control room filtration unit filters or reduced air flow will not be diminished. Damper sequencing changes (as depicted on instrument drawings only) will not affect the HVAC/damper systems ability to isolate and confine heat and smoke or to isolate affected areas in the event of halon discharge. Changes to dampers (as depicted on instrument drawings only) will not affect operator actions or equipment functions required to mitigate the consequences of accidents. Changes to fire, isolation and balancing damper sequencing (as depicted on instrument drawings) will not affect designed function. The probability of a malfunction of equipment important to safety (e.g. control room filtration unit and various fire dampers, control dampers, isolation dampers and fire barrier) and its consequences will not be increased.

Physical configuration of equipment as installed in the plant is not affected by this design change. Therefore, accidents or malfunctions of equipment important to safety different from those evaluated in the USAR are not created.

The correction of the drawings affected by this change will not result in a reduction of the margin of safety as defined in the Technical Specification Bases.

PLANT MODIFICATION REQUEST: 03022 Revision: 0

Title: Containment Building Polar Crane Load Capacity Reanalysis

Description: This modification incorporates a new Containment polar crane capacity into the design documents. The polar crane (rated hoo: capacity 260 tons) was originally qualified for 150 tons lifted load capacity concurrent with a safe shutdown earthquake (SSE) event. A reanalysis was performed for upgrading the crane capacity during a SSE event to 200 tons. There are no physical modifications required.

Safety Evaluation: The Containment polar crane is a safety related (category I) component of the Fuel Handling System (FHS) with a normal main hook rated capacity of 260 tons. The crane is required to maintain its integrity with load during a SSE event. By the original design analysis, the crane was qualified for 150 tons lifted load during a SSE event. The actual lifting of a load, during plant operation, in excess of previously evaluated loads, is not included with the scope of this change.

Detailed and qualitative analysis of the various crane components, including bridge, trolley, mechanical components (main hook, main hoist brakes, gear train) and supporting girder and brackets were performed to verify the margins in the existing design for the purpose of determining the new crane capacity concurrent with an earthquake of a SSE magnitude. These analyses concluded that the crane, in its entirety, is structurally adequate, without any modifications for a lifted load of 200 tons concurrent with a SSE event.

All stresses remain within code allowables based on current design bases. The Containment Building wall design has also been reviewed for the reactions from the new crane seismic analysis and the reactions were found to be enveloped by previous load analysis. The seismic reanalysis of the polar crane, therefore, does not impact its design bases, or that of the Containment Building, since the structural integrity, function, and operability of both are unaffected.

Based on the above, the polar crane seismic reanalysis will not affect any accidents or malfunctions of equipment important to safety because no physical or design bases changes are being made.

No new accidents or malfunctions of equipment important to safety are created because this modification consists of only upgrading the Containment polar crane capacity by analysis during a SSE event and there is no physical modification to equipment.

No Technical Specifications or bases are affected as the design bases of the polar crane and associated systems remain unchanged.

PLANT MODIFICATION REQUEST: 03023 Revision: 0

Title: Oil Level Gauge Addition To Positive Displacement Charging Pump

Description: This modification involves the addition of an oil level sight glass to Positive Displacement Charging Pump PBG04. The addition will allow a visual oil level determination during pump operation. The present design for oil level monitoring is only accurate if the pump is not operating and thereby creating unnecessary down time.

Safety Evaluation: The addition of the new oil gauge will not replace the existing gauge. Instead, this new gauge will facilitate personnel in determining the oil level of the pump during operation and the existing gauge shall be utilized as a non-operating oil level gauge.

The safety related function of the positive displacement pump is to assure the integrity of the Reactor Coolant Pressure Boundary. The failure of the sight glass or any portion of the oil system will not affect the pressure boundary safety feature of the pump. Thus the

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probability of occurrence and the consequences of an accident or malfunction of equipment importent to safety in the USAR previously evaluated has not been increased.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

The addition of the level gauge does not result in a reduction in the margin of safety as defined by the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03024 Revisior. 0

Title: Fuel Building Stairwell Unit Heat's Addition

Description: This modification r ovides a new Electric Unit Heater, EGG12, in the Fuel Building Strinway, Room 6101. The unit is sized to maintain the entire stairway abstantially above freezing, approximately 60 degrees Fahrenheit.

Safety Evaluation: "he unit heater is non-safety related and its addition does not i pact any safety design bases. There is no increase in the probabilit, of occurrence and the consequences of an accident or malfunction of quipment important to safety previously evaluated in the USAR.

Since there is no interaction with safety related equipment created by this redification, there is no possibility that an accident or malfraction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There are no Technical Specifications that are applicable or affected by this modification so no reductions in any margin of safety will result.

PLANT MODIFICATION REQUEST: 03049 Revision: 1

Title: Penetration Annulus Gap Dimension

Description: This modification revision accepts use "as-is" of the Fire Protection System penetration closure for penetration OP134S0377. The annulus gap dimension (between the pipe and the lead seal) exceeds the gap tolerance of - 0 inch and + 1/4 inch. A radiation boundary

separation is required for this penetration closure. Based on the dimensions provided, the geometry of the penetration dimensions dictate that even with the slight increase in annulus gap the overall increase in "line-of-sight" for direct radiation source streaming effects are minimal. The slight increase poses no significant increase in personnel radiation doses.

Safety Evaluation: Since the only change is a small change in the annulus gap dimension of penetration OP134S0877, which does not impact the design function of said penetration, the probability of occurrence and the consequences of an accident or malfunction previously evaluated in the USAR will not be increased.

The design function and characteristics of the penetration seal have not changed, therefore the possibility that an accident or malfunction of a different type from any evaluated previously in the USAR is not created.

The subject penetration closure is not described or related to any Technical Specification, therefore there will be no reduction in any margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03050 Revision: U

Title: Oil Interceptor To Low Total Dissolved Solids Tank Connection

Description: This modification provides a flowpath that would handle liquid being discharged from the oil intercept tank to the low total dissolved solids (TDS) tanks. This would alleviate high TDS tank overflow during condensate regeneration cycle without restricting the usage of another system flow path.

Safety Evaluation: The components of this modification : e designed to the same standards as the original design. The additio, of a new flow path does not reduce the systems' ability to mitig le any accidint designed for in the original system. The system will maintain capabilities to isolate upon high radiation signals and reconfigure flowpaths with valve positions to send the liquid to the Radwaste Building. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR is not increased

The modification is remotely located from any safety-related equipment. The modification, furthermore, does not change the intended function or capabilities of the system. Therefore, no new accident or malfunction of safety related equipment will occur. No reduction in the margin of safety as defined in the bases for any Technical Specification will occur.

FLANT MODIFICATION REQUEST: 03070 Revision: 0

Title: Containment Building Personnel Hatch Latch Material Change

Description: This modification approves the material change of the Containment Building personnel hatch latch driveshaft coupling from AISI 3045 to ASTM A-514.

Safety Evaluation: The ASTM A-514 material is approved as a superior substitute for the application. The north sensitivity requirements infer that its fatigue life will be longer than that of the AISI 1045 material. The tensile and yield strength property requirements have improved. The ductility (elongation and reduction in area) property requirements have improved. Atmospheric corrosion resistance has improved and galvanic corrosion resistance has remained the same. The carbon content requirements have decreased and with it a longer fatigue life is inferred.

Given that its function has not changed, the material change will not increase the consequences and probability of occurrence of pertinent personnel hatch malfunctions previously evaluated nor will it increase the probability of occurrence or the consequences of an accident previously evaluated.

There is no possibility that a personnel hatch malfunction of a different type or an accident of a different type than any previously evaluated will be created because the coupling material is an improvement designed to last longer than its predecessor.

This material design change was made to prolong the design life of the coupling. It will not reduce the margin of safety as defined in the Technical Specifications.

PLANT MODIFICATION REQUEST: 03074 Revision: 0

Title: Internal Attachment Of Sensors To Component Cooling Water Isolation Valves And Bypass Valves

Description: This modification allows the installation of Liberty Technology's Valve Operation Test - J Evaluation System (VOTES) force

sensors on the inside of Component Cooling Water Containment Isolation Valves EG HV058, 059 and Bypass Valves EG HV127, 131. "he VOTES sensors are normally mounted on the outside. These valves were identified as having yokes shaped such that mounting the sensor externally is not scceptable because of their narrow width and T-shape. Safety Evaluation: These valves are necessary for Containment isolation

which mitigates the consequences of a Loss of Coolant Accident (LOCA) or a fuel handling accident. The design change to permanently install the VOTES sensor inside the yoke cannot prevent EG HV058 and EG HV059 or prevent EG HV0127 and EG HV0131 from operating properly during a design basis event. If the sensor were to be dislodged from the yoke, the safety tie wire or band will prevent the sensor from falling into the moving parts of the valve. Even if the sensor were loose, the size and shape of the stem and sensor precludes the sensor from lodging between stem and other valve components and preventing valve travel in either direction. Therefore, the VOTES sensor installation does not increase the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the

The addition of the sensors to the inside of the valves' yokes will not

create any new accidents or malfunctions of equipment because the installed location of the sensor and its insignificant size and mass will not affect the structural integrity or function of the valves. The Containment isolation will occur within the time specified for those isolation valves designed to close automatically which ensures that the release of radioactive material to the environment will be consistent with the assumption used in the analysis for a LOCA. There is no reduction in the margin of safety as defined in the bases for any

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PLANT MODIFICATION REQUEST: 03077

Titio: Essential Service Water Flow Indicator Installation

Description: This modification provides for the addition of permanent differential pressure flow indicators EF FI57 and EF FI58 across the existing orifices EF FES7 and EF FE58, respectively. This will provide for permanent local indication of Essential Service Water (ESW) flow to several plant components, including, principally, the Containment Cooling Fans, to permit correlation of the flow indicated by the new local indicators with that indicated by retractable annubar indicators when they are instant d temporarily in the ESW lines to Containment. The indicators e ______ ag added in the Auxiliary Building.

sensors on the inside of Component Cooling Water Containment Isolation Valves EG HV058, 059 and Bypass Valves EG HV127, 131. The VOTES sensors are normally mounted on the outside These valves were identified as having yokes shaped such that mounting the sensor externally is not acceptable because of their narrow width and T-shape.

Safety Evaluation: These valves are necessary for Containment isolation which mitigates the consequences of a Loss Of Coolant Accident (LOCA) or a fuel handling accident. The design change to permanently install the VOTES sensor inside the yoke cannot prevent EG HV058 and EG HV059 or prevent EG HV0127 and EG HV0151 from operating properly during a design basis event. If the sensor were to be dislodged from the yoke, the safety tie wire or band will prevent the sensor from falling into the moving parts of the valve. Even if the sensor were loose, the size and shape of the stem and sensor precludes the sensor from lodging between stem and other valve components and preventing valve travel in either direction. Therefore, the VOTES sensor installation does not increase the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

The addition of the sensors to the inside of the valves' yokes will not create any new accidents or malfunctions of equipment because the installed location of the sensor and its insignificant size and mass will not affect the structural integrity or function of the valves.

The Containment isolation will occur within the time specified for those isolation values designed to close automatically which ensures that the release of radioactive material to the environment will be consistent with the assumption used in the analysis for a LOCA. There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03077 Revision: 0

Title: Essential Service Water Flow Indicator Installation

Description: This modification provides for the addition of permanent differential pressure flow indicators EF FI57 and EF FI58 across the existing orifices EF FE57 and EF FE58, respectively. This will provide for permanent local indication of Essential Service Water (ESW) flow to several plant components, including, principally, the Containment Cooling Fans, to permit correlation of the flow indicated by the new local indicators with that indicated by retractable annubar indicators when they are installed temporarily in the ESW lines to Containment. The indicators are being added in the Auxiliary Building. Safety Evaluation: The new indicators and their associated tubing serve no safety function other than to maintain their own integrity at all times, including post-operating basis earthquake and post-safe-shutdown earthquake. No safety function is served by their indication. The only system affected by this change is the ESW System. The portion of the system piping where the indicators will be installed is designed to ASME Section III, seismic category I requirements. Should these indicators fail functionally for any reason, such failure will not affect the ability of the ESW System or any other system, component or structure to fulfill its design safety functions.

The addition of flow indicators EF FI57 and EF FI58 will not create an accident or malfunction of equipment important to safety different from those evaluated in the USAR.

No change to any design parameters exists as a result of this modification so there is no reduction in the margin of safety as defined in the Technical Specifications.

PLANT MODIFICATION REQUEST: 03092 Revision: 0

Title: Boric Acid Tank Low And Low-Low Alarm Setpoint Revision

Description: The Boric Acid Tank (BAT) low and low-low alarm setpoints are set unnecessarily high resulting in nuisance alarms and a reduction in the available operating band. This modification allows the Boric Acid Tank (BAT) level setpoints for both the low and low-low level alarms to be lowered. The low level alarm is reduced from 84% to 77% and the low-low alarm 79% to 72%.

A low-low alarm setpoint of 72% provides a buffer of 6% from the Technical Specification required minimum level of 66%, which is appropriate after accounting for necessary allowances for instrument accuracy and operator response. Included is a modification to the tolerance zone banding on the BAT level indicators. However, the same banding design will be used as currently present.

Safety Evaluation: The accuracy and response characteristics of the level indicators will remain the same. No accident or malfunction evaluated in the USAR is affected.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined by the bases in any Technical Specification.

PLANT MODIFICATION REQUEST: 03098 Revision: 0

Title: Standby Diesel Cooling Water Piping Support Relucation

Description: Standby Diesel Cooling Water Piping Supports KJ02-C525 and KJ02-C526 in Diesel Rooms B and A, respectively, protrude above the grating level of the floor. This creates a trip hazard in the walkway used for access to the ladder leading to the service platform on the west side of the Diesel Generator. This modification relocates the supports.

Safety Evaluation: The new support location was selected such that the piping stress and support structural capability satisfies the original codes and design guidelines. As such, the probability of occurrence and the consequences of an accident or malfunction previously evaluated in the USAR will not be increased.

No new type of accident or malfunction will be created by the support location since this relocation constitutes only II/I concerns, which have been evaluated in the USAR.

The design change maintains its defined safety margin by meeting the original code allowables and design guidelines.

PLANT MODIFICATION REQUEST: 03104 Revision: 0

Title: Recorder Input Signal Isolation

Description: Removal or insertion of a recorder for changing chart paper or maintenance induces spikes on the r corder input signal lines which can cause Steam Generator Level Control System fluctuations or steam flow mismatch annunciations. This modification allows installation of an isolator card to each recorder input signal line to isolate all recorder inputs from other control/signal circuitry. In several locations in the Westinghouse electronics cabinets, signal and control circuit wiring and recorder input signal wiring are paralleled off a common isolator card output.

Safety Evaluation: The addicion of isolator cards does not adversely affect the performance of other components in the loop and the operating characteristics of the system are not affected in any manner. Therefore, the probability of occurrence and consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR will not be increased. The isolator cards used in this modification are the same as those already used throughout the Westinghouse cabinets. Therefore, the possibility of an accident or malfunction of a different type than any evaluated previously in the USAR will not be created.

The subject instrument loops are not utilized in the monitoring or control of any Technical Specification parameters. Therefore, there will be no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03105 Revision: 0

Title: Addition Of Office Partitions In The Security Building

Description: This modification adds free-standing fabric covered partitions with doors for the creation of new office space along the west wall of the personnel search area of the Security Building. The Security Plan is to be revised to show these partitions.

Safety Svaluation: The proposed modification is in the Security Building. No accidents or malfunctions evaluated in the USAR are initiated in the Security Building and no events in the Security Building are inputs into any accident or malfunction evaluated in the USAR. The addition of partitions in the Security Building does not affect the ability of power block equipment or operating personnel to mitigate any accident evaluated in the USAR.

Adding these partitions in the Security Building loes not create any new hazard to station personnel or equipment. Therefore there is not a possibility of an accident different from those described in the USAR created by this modification.

The bases for the Technical Specifications do not address security requirements, therefore this change cannot reduce any margin of safety defined in the Technical Specifications.

PLANT MODIFICATION REQUEST: 03108 Revision: 0

Title: Trolley Side Plate Design Modification

Description: This modification installs trolley stops on the supporting steel and welding angles to the trolley's side plate to correct a design problem identified on miscellaneous hoists HKF10, HKF23, EKF34 and

ERF40. These hoists are located in the Auxiliary Building and the Radwaste Building.

Safety Evaluation: All hoists being evaluated are non-safety related. HKF10 and HKF23 are connected and supported by category I steel structures. HKF34 and HKF40 are connected and supported by non-category 1 steel structures. This evaluation is performed for all affected equipment and their respective supporting structures.

The safe operation of the affected equipment will not be affected by the changes performed. The changes performed do not involve or affect plant conditions or system as referenced in the USAR for postulated accidents. The affected components do not fall into the category of essential components for the ultimate mitigation of consequences resulting from faulted condition, normal operation or operational transient as referenced in the USAR.

The changes provided do not deviate or adversely change the original equipment design safety features. Therefore, the possibility of an accident or malfunction of a different type from any evaluated previously in the USAR is not created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03110 Revision: 0

Title: Service Air To Spent Fuel Pool Gate Pressure Indicator Location Change

Description: This modification moves Service Air supplying Spent Fuel Pool Gate Pressure Indicator KA PI0099 and associated mounting from its present location to a new location so that the indicator faces west, allowing it to be read from outside a potential hot-particle zone.

Safety Evaluation: The change involves non-safety related equipment attached to a safety related wall. This change is done in accordance with the appropriate safety related specification and will not affect any safety related equipment or systems. The change does not influence any accident evaluation and will therefore not increase any accident consequences. The change will not affect any safety related equipment and will therefore not increase the probability of equipment malfunction or the consequences of a malfunction.

There is no possibility that an accident or malfunction of equipment important to safety of a different type from any evaluated previously in the USAR may be created. This change will not affect any Technical Specification bases.

PLANT MODIFICATION REQUEST: 03126 Revision: 0

Title: Control Building Air Conditioning Units Refrigerant Pressure Transmitter Replacement

Description: This modification allows replacement of Honeyvell model 41223 Pressure Transmitters with Rosemount model 1152 Pressure Transmitters for use on the Control Building Air Conditioning (A/C) Units SGK04A, SGK04B, SGK05A, SGK05B to sense refrigerant pressure. The modification is being performed because the Honeywell model is no longer being manufactured. An isolation valve is also being added in the instrument sensing line to allow transmitter calibration or removal without loss of refrigerant.

Safety Evaluation: Qualification of the Rosemount transmitters has been performed by the manufacturer and has been found to be acceptable per the appropriate specifications. The Rosemount transmitters are functionally equivalent to the Honeywell transmitters. Therefore, the modification will not adversely affect the A/C units' operating characteristics or capabilities. The new transmitter and valve assembly puts additional weight on the A/C skid, however, analysis has shown that the seismic acceptability of the skid is not adversely affected. Therefore, the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR is not increased.

Since the new transmitters and mounting/connection configuration are functionally equivalent and meet or exceed all seismic and environmental requirements of the original equipment, the possibility of an accident or malfunction of a different type than any previously evaluated in the USAR is not created.

Since the operating characteristics and capabilities of the A/C units are not adversely affected by this modification, the margin of safety as defined in the bases for any Technical Specification is not reduced.

PLANT MODIFICATION REQUEST: 03130 Revision: 0

Title: Diesel Generator Loading Summary Revision

Description: This modification revises the diesel generator loading list. The Revision will incorporate as-built information regarding the brake horsepower for several of the major loads and will add two loads which were previously omitted. These changes result in a worst case total diesel load of 5691 kilowatts (kW) during station blackout which is 55 kW greater than the previous sum.

Safety Evaluation: The ratings of the diesel generators have been established to meet the requirements identified in Regulatory Guide 1.9. The diesel generator has a continuous rating of 6201 kW. It has additional ratings of 6635 kW for 2000 hours, 6821 kW for 7 days and 7441 kW for 30 minutes.

The changes associated with this modification do not significantly impact the diesel generator loading and the worst case load is well below the continuous rating of the diesel generator. Therefore, the ability of the diesel generator to perform its safety related design function is not affected by the changes associated with this modification. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

This modification does not create an accident or malfunction of equipment important to safety of a different type than any evaluated previously in the USAR.

This modification does not reduce the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03143 Revision: 0

Title: Storage Cabinet And Barrel Additions

Description: This modification provides for the addition of storage cabinets and barrels (55-gallon drums with secured lids) in various areas of the Auxiliary Building. The storage provisions are to allow for convenient storage and retrieval of necessary supplies. During refueling outages, drain and vent flanges from various systems are removed and temporarily stored in approved hot storage areas. Once drain hoses are used in draining and venting systems in various rooms, the hoses are also removed to the approved hot storage area. This addition of storage cabinets and barrels will result in a reduction of the time required for system evolutions, better control of transported radiological products about the facility, reduction of waste quantities resulting in efficient utilization of facility resources and a reduction in radiological waste volume.

Safety Evaluation: All barrels will be secured to the adjacent walls with a chain and latch hook. When access to materials in barrels is not required, the lid to the barrels will be secured in the closed position. The barrels and cabinets will be coated with a nuclear grade epoxy coating to facilitate decontamination. The storage barrels and cabinets have been located such as to avoid any II/I conflicts, minimize problems of ingress and egress into rooms, allow free movement about equipment and minimize potential fire hazards. Good housekeeping and ALARA procedures are applied to maintain fire hazard and radiological exposures to a minimum. The addition of storage containers does not affect accidents previously evaluated in the USAR. The location and securing devices maintain the storage devices a clear distance from equipment such that there is no increase in the probability of malfunction or consequences thereof.

The combustible loads are still within the rated guidelines for the rooms per the USAR. A review of flood hazards in the Auxiliary Building indicates that there is no increase in flooding elevations or effects on safety related systems. There is no possibility that an accident or malfunction of a different type than any previously evaluated in the USAR may be created.

There are no sections in the Technical Specifications affected by this modification.

PLANT MODIFICATION REQUEST: 03145 Revision: 0

Title: Addition Of Fire Extinguishers On Cranes

Description: This modification involves the mounting of one fire extinguisher on the Fuel Building crane, two fire extinguishers on each Turbine Building crane and one on the Containment Building polar crane. The fire extinguishers shall be supported by their vendor supplied support with the use of a basket providing fall or drop protection in the event the extinguisher disengages from its support.

The fire extinguisher located on the polar crane in Containment is to be removed at the end of each outage and placed in an approved storage area. The fire extinguisher is to be returned to its location at the beginning of each outage. Safety Evaluation: The addition of the fire extinguishers to the cranes does not impact any existing accident analysis. The extinguishers are not safety related and their installation has no impact on any existing equipment. Therefore, there is no increase in the probability of occurrence or the consequences of an equipment malfunction.

Since the extinguishers cannot fail in such a manner to impact any existing equipment, there is no possibility that an accident or malfunction of equipment important to safety of a type different than any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03148 Revision: 0

Title: Switchgear Contact Lubricant Change

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Description: This modification approves a change in the part number and specification for the class IE switchgear NB01 and NB02 contact lubricant. This change is necessary since the replaced lubricant has become obsolete due to health problems related to its lead content. In response, the supplier has changed the materials and corresponding part numbers. In addition to the safety related components, this change in contact lubricant is also applicable to non-safety related switchgear PA01.02, PA03.04, PA05.06, PB03 and PB04.

Safety Evaluation: Given that its functionability has not changed, the lubricant change will not increase the probability of occurrence and the consequences of pertinent safety related switchgear accidents or malfunctions previously evaluated in the USAR.

There is no possibility that a lubricant malfunction of a type different than any previously evaluated in the USAR will be created since grease performance design has improved.

This modification will not reduce the margin of safety as defined in the Technical Specifications Bases.

PLANT MODIFICATION REQUEST: 03157 Revision: 0

Title: Filter Adsorber Unit Prefilter Setpoint Change

Description: This modification implements a change of the differential pressure setpoints for filter adsorber units FGE01, FGH02, FGK03, FGL02, FGR01A, FGR01B, and FGT01. The setpoint is being changed from 0.5 inch water gauge to 1.0 inch water gauge which is referenced as the dirty filter differential pressure in vendor documentation and the startup field report. The setpoint modification will enable less frequent changing of the moderate efficiency (MOD) filters and will enable the change to be done with less filter waste. The setpoint modification will result in less Containment exposure man-hours expended to change put FGR01A and FGE01B MOD filters.

Safety Evaluation: All critical USAR requirements regarding the loading of Wolf Creek Generating Station filter adsorber units relate only to High Efficiency Particle Absorption (HEPA) filters and charcoal adsorber beds.

Vendor documentation will allow the subject prefilter differential pressure setpoint increase and indications are that even larger allowances are tolerable insofar as the prefilter efficiencies at their rated flows are concerned. No malfunctions of the HEFA filters and charcoal adsorber beds have been attributed to or are anticipated as a result of the setpoint increase. This change will result in lessened frequency of filter changes and will not increase the probability of any accident previously evaluated in the USAR or the consequences thereof.

No accident or malfunction of equipment important to safety of a different type than any evaluated previously in the USAR is created.

The Technical Specifications address only the rated flows and pressure drop allowables across HEPA filters and charcoal adsorbers. There is no reduction in the margin of safety as defined by the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03158 Revision: 0

Title: Emergency Exhaust Heating Coil Moisture Control Modification

Description: This modification allows permanent installation of a temporary modification where jumpers were installed around the master and slave Silicon Control Rectifier (SCR) power controllers in the Fuel Building Emergency Exhaust Heating Coils EGGIOA and EGGIOB. This was done because of malfunctioning of the SCR power controllers. This modification applies full voltage to the heater whenever its respective fan, CGG02A or CGG02B, is operating. The SCR power controllers, humidity sensors, and transmitters will all be kept in place. Related documents will need to be revised to show these jumpers.

Safety Evaluation: This modification actually increases the Emergency Exhaust System reliability by ensuring the operation of the heater unit while the fan is running regardless of the humidity level. The reliability of the heater unit is increased by eliminating the possible malfunction of the moisture sensor, moisture transmitter, signal transmitter, or the SCR power controller. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR is not increased.

Fewer components and less connections, with the jumpers installed to the same standards as the original wiring, only increases the reliability of the heater coil operation. Continuous full power output of the heater will not overheat or lead to premature failure of the charcoal absorber bed, which is the most temperature sensitive component of the Emergency Filter-Adsorber Unit. The possibility that an accident or malfunction of equipment important to safety of a different type than any evaluated previously in the USAR is not created.

The bases for the Technical Specifications were reviewed. The margin of safety is not decreased as both the reliability of the heater operation will be enhanced and the moisture buildup on the charcoal adsorbers and filters will be further reduced.

PLANT MODIFICATION REQUEST: 03160 Revision: 0

Title: Shop Building Potable Water Modification

Description: This modification involves the installation of a cross tie line to supply potable water to the shop building air compressors for their cooling needs. This will be a backup source in the event that the normal raw water supply is out of service.

Also included is the addition of a cold potable water supply line to additional stations in the shop area of the building and the installation of an electrical supply circuit for the icemaker located in the water treatment area of the building.

Safety Evaluation: The subject systems and the portions of the shop building being modified are non-safety. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR. The potable water system is not connected to equipment important to safety and does not affect any accident discussed in the USAR. Therefore, there is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined by the bases in any Technical Specification.

PLANT MODIFICATION REQUEST: 03168 Revision: 0, 1, 2

Title: Structural Stiffening Of Containment Cooling Fan Housings

Description: This modification provides structural support to the housing for the Containment Cooling Fans to enhance the housing's ability to withstand seismic loads. Revision 2 applies a coating to the bracing.

Safety Evaluation: With the additional structural bracing, the fan cooler unit maintains structural rigidity and remains within allowable stress limits during a seismic event. This further assures the availability of the Containment Cooling Fans by providing additional support during a seismic event. No other safety systems are affected by this modification. The coating material is qualified to ensure that during and after a Loss Of Coolant Accident, the paint will remain in place. Therefore, the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety is not increased.

This modification enhances the as-installed condition of the Containment Cooling Fans and has no adverse impact on safety related plant systems. This modification, including its installation, adds no active component to the plant that could malfunction. Therefore, an accident or malfunction of equipment important to safety different from any previously evaluated in the USAR is not created.

This modification does not affect the way the cooling fans operate, it only ensures their operation after a seismic event. Therefore, margins of safety as defined in the Technical Specifications bases are unaffected.

PLANT MODIFICATION REQUEST: 03169 Revision: 0

Title: Essential Service Water Emergency Battery Light Relocation

Description: The emergency battery lights in the A and B Essential Service Water (ESW) Pumprooms are obstructed by cable trays. This modification involves moving the emergency battery light located on the west end of each ESW Pumproom to the interior wall near their respective lighting transformers.

Safety Evaluation: The new location allows more of the exit door to be illuminated. From a life-safety point of view this would enhance emergency egress from the area as well as provide adequate general equipment illumination. The attachments to the ESW Pumphouse wall will be designated as Special Scope (seismic II/I). The attachments do not adversely affect the structural integrity of the wall and the local effect of the additional load is not significant. The relocation of these lights does not affect the operation or performance of any equipment important to safety. Therefore, there is no increase in the probability of occurrence and the consequences of a previously evaluated accident or malfunction of equipment important to safety.

This change does not affect any safety related equipment. There is no possibility that an accident or malfunction of equipment important to safety of a different type than previously evaluated in the USAR may be created.

There is no change in the margin of safety as defined in the Technical Specifications.

PLANT MODIFICATION REQUEST: 03194 Revision: 0

Title: Barton Transmitter Life Extension

Description: This modification incorporates a new minimum activation energy of 0.78 electron volts (eV) for the Barton Model 763 Gage Pressure Transmitters and Model 764 Differential Pressure Transmitters. This new value reported by Barton gives a longer qualified life than the previous activation energy of 0.5 eV from Westinghouse.

Safety Evaluation: ITT Barton, the manufacturer of the subject transmitters, provided a qualified life of the transmitters that is based on a more realistic activation energy. There is no physical change to the transmitters involved with this modification. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

This modification does not create an accident or malfunction of equipment important to safety of a different type than any evaluated previously in the USAR.

This modification does not reduce the margin of safety as defined in the bases of any Technical Specification.

PLANT MODIFICATION REQUEST: 03200 Revision: 0

Title: Fire Protection Valve Documentation Modification

Description: This modification involves a previous replacement of Fire Protection System Reactor Building Supply Header Inside Containment Isolation Valve KC V432. The original valve, Jenkins Model 825, was no longer available so a Jenkins Model 825C valve was procured as a replacement with similar characteristics. The major difference between the two models was the lack of a position limit switch on the model 825C. Therefore, a field fabricated mounting bracket was installed on the new valve to hold and properly position the valve open limit switch. Consequently, this modification incorporates the limit switch bracket into the design documentation, as well as to provide supplier documentation for the Jenkins Model 825C valve.

Safety Evaluation: This value is not safety related. This modification reflects the as-built configuration of value KC V432. The replacement value lacks the extended yoke arm needed to support the unit switch. A mounting bracket was fabricated to compensate for this difference and existing limit switch was attached.

Calculations reflecting the structural integrity (seismic II/I) of the limit switch mounting bracket have been approved. Since the replacement valve satisfies the original design requirements, it will not have an impact on the probability of occurrence and the consequences of an accident previously evaluated in the USAR. The probability of occurrence and the consequences of a malfunction of the equipment is not being increased because there has been no change in the operability of the equipment.

The possibility of a type of accident or malfunction of equipment important to safety different than any previously evaluated in the USAR is not created because there has been no change in proper operating parameters of the system or equipment.

This changeout of the valve does not affect any margin of safety as defined in the Technical Specifications.

PLANT MODIFICATION REQUEST: 03201 Revision: 0 Title: Service Gas System Drawing As-Builts

Description: A change to the Service Gas System drawings is being made to show a cap on three vent connections off the low pressure nitrogen supply lines to various electrical penetrations. These caps are installed and are also shown on the isometric drawings of this line. The portion of the line with the cap, in each case, is a non-safety related section of line downstream of a normally closed isolation valve.

Safety Evaluation: The line and the cap ar , not safety related and this cap does not affect safety related equipment. There are no USAR accidents or malfunctions of equipment important to safety which could be affected by this change.

PLANT MODIFICATION REQUEST: 03205 Revision: 0

Title: Centrifugal Charging Pump Discharge Isolation Valve Rotation

Description: This modification provides for a 180 degree rotation of the bodies of Centrifugal Charging Pump Discharge To Seal Water Injection Filter Isolation Valves BG HV8357A & F. These valves have shown a tendency to draw liquid out of the stem barrel that assists in holding the valve closed, causing it to open by creating a slight vacuum. Rotating the valve body will cause the stem barrel to remain filled at all times.

Safety Evaluation: The reorientation of the values has been reviewed and evaluated to determine that there are no affects on any seismic, stress, or break analysis for the pipe. Therefore, there is no increase in the probability of occurrence or the consequences of previously evaluated accidents. keorientation of the values enhances their operation and does not increase the probability of occurrence or the consequences of a proviously evaluated malfunction of equipment important to safety.

There is no possibility that an accident or malfunction of equipment important to safety of a different type than previously evaluated in the USAR may be created. The Technical Specifications do not address the orientation of the valves. The new orientation of the valves does not reduce any margin of safety as defined in the Technical Specification bases.

PLANT MODIFICATION REQUEST: 03209 Revision: 0

Title: Astragals For Doors 31011 and 13291

Description: This modification provides for molding to be added to eliminate gaps identified between door 13291 and the door jam and also between the active and inactive leaf of door 31011. The molding is fabricated from 10 gage stainless sheet metal mounted with 1/4 inch flat head screws along the full length of the doors to obtain a flush mount with the exposed surface.

Safety Evaluation: The doors are safety related, pressure rated, three hour fire doors. The screws penetrate the outer skin of the doors and in essence do not affect the pressure integrity of the doors' inner face. Adding less than 14 pounds of weight to the end surface of the doors will apply negligible loading to the doors structure and performance.

These two doors are not discussed in any accident analysis in the USAR and will maintain their pressure boundary integrity should an accident occur. These doors will not affect the safety related equipment malfunction probability or the consequences thereof.

These doors do not provide active support to safety related equipment. Therefore, there is no possibility created of a different type of an accident or malfunction of equipment important to safety evaluated previously in the USAR.

There are no sections in the Technical Specifications found to be applicable.

PLANT MODIFICATION REQUEST: 03218 Revision: 0

Title: Piping Material Substitution

Description: This modification was created as a pre-Refuel 4 outage evaluation to allow for an unplanned replacement of erosion/corrosion (E/C) worn piping components in the Main Turbine, Condensate, and Feedwater Heater Extraction and Drains Systems during the Refuel 4

outage with similar components composed of better E/C-resistant material. Numerous piping components in these systems are subject to abnormal two-phase E/C as evidenced by leak-throughs and non-destructive examination (NDE) results. Ten modification packages, mostly generic, have been issued for modification during Refuel 4 outage if required upon evaluation of subsequent inspections. These packages encompass the major components which have been identified to date as subject to abnormal E/C and primarily entail replacement with materials that are more E/C-resistant than carbon steel, (e.g. low-alloy steel and stainless steel).

Safety Evaluation: The Main Turbine, Condensate, and Feedwater Heater Extraction and Drains Systems do not contain any safety related or special scope piping components. The proposed change of piping material in the Turbine Building from low-carbon steel to low-alloy steel will not adversely increase the probability or consequences of any accident or malfunction of equipment important to safety previously evaluated in the USAR.

Piping configuration remains the same. The modification only involves a change to a higher E/C-resistant material. Therefore, there is no possibility that an accident or malfunction of a different type from any evaluated previously in the USAR may be created.

No margin of safety in the Technical Specifications pertains to the subject piping.

FLANT MODIFICATION REQUEST: 03219 Revision: 0

Title: Main Steam And Feedwater Isolation Valves Oil Mist Eliminators

Description: This modification allows the installation of hydraulic actuator pump/oil mist eliminator upgrades as recommended by the vendor of the Main Steam Isolation Valves (MSIVs) and Feedwater Isolation Valves (FWIVs). The MSIVs and FWIVs frequently require maintenance to vsplace the filter in the oil mist eliminator and to clean up the oil spill caused by the separation of the filter from its mounting base.

Safety Evaluation: The increase in valve reliability improves the valve's capability to function as required during an accident. There is no increase in the probability of occurrence and the consequences of a malfunction of equipment important to safety previously evaluated in the USAR.

There is not a possibility that an accident or malfunction of equipment important to safety may be created of a different type than any evaluated previously in the USAR. There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03221 Revision: 0

Title: Condenser Air Removal System Drain Line Connections

Description: This modification provides use "as-is" of four connections for buried pipe (CG019HBD-1 & CG017HBD-2) of the Condenser Air Removal System. Drawings show an insulating flange at four connections of the pipe. An examination of these four connections reveals that the insulating flange kits are not installed.

In buried pipe systems, where cathodic protection systems are employed as a corrosion protection measure, insulating flanges are used to electrically isolate above ground portions of the system from below ground portions. This isolation prevents a drain of cathodic protection current (where it is not needed) into above ground metallic structures and ultimately into the power block grounding grid. They are also used to prevent galvanic corrosion at mechanical joints in piping made of different metals.

Safety Evaluation: Absence of the insulating flange kits will not degrade corrosion protection measures (i.e., coat and wrap). Furthermore, since the piping is not cathodically protected and the joints are not bimetallic, the insulating flange kits are not required to enhance corrosion protection measures.

The design change will not affect the function of the condenser vacuum pumps or increase the frequency of reactor trips caused by a loss of condenser vacuum. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined by the bases in any Technical Specification.

PLANT MODIFICATION REQUEST: 03223 Revision: 0

Title: Positive Displacement Charging Pump Fluid Drive Reservoir Drain Line Installation

Description: This modification provides for installation of a drain line and isolation valve on the Positive Displacement Charging Pump (PBG04) fluid drive reservoir. Installation of this drain and valve arrangement on the fluid drive reservoir will make routine maintenance easier and cleaner when draining or sampling oil. Also, since this arrangement simplifies sampling and draining and makes it quicker, it will help reduce the dose exposure time of personnel performing these activities.

Safety Evaluation: The Fluid Drive for the Positive Displacement Charging Pump (PBG04) is not part of the pressure boundary portion (Seismic Category 1) of the pump and does not communicate with the process fluid of the Chemical Volume Control System. Also, pump PBG04 is powered from a non-Class IE source and is not required to mitigate the effects of a design basis accident.

None of the accidents evaluated in the USAR are applicable to the design change. Failure of this drain line will not compromise the pump pressure boundary and does not affect the safety related aspect of pump PBG04. Therefore, failure of the drain line does not increase the probability of occurrence or the consequences of an accident or safety related equipment malfunctions.

Since the design change does not interface with the pump pressure boundary, there is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

Design basis requirements have not been altered as a result of the design change, therefore there is no reduction in the margin of safety as defined by the bases of any Technical Specification.

PLANT MODIFICATION REQUEST: 03235 Revision: 0

Title: Substitution Of Tylok Tube Fittings

Description: This modification allows substitution of Tylok tube fittings with Swagelok tube fittings on valves supplied under specification J-601A, as approved by the valve manufacturer. The fittings are used to connect pneumatic supply and signal tubing to the valves' actuators and associated pneumatic accessories. On valves which are required to stroke during an accident, and are therefore connected to the backup nitrogen supply, the Swagelok replacements will be safety related. On the remaining valves supplied under specification J-601A, the tube fittings are used to connect the non-safety related instrument air supply to the valve actuators and pneumatic accessories. Since these valves are designed to fail to the safe position upon loss of air, the tube fittings are not required for these valves to perform their safety related function derefore, nonsafety related fittings (Tylok or Swagelok) may be used to the valves.

The USAR states that to provide an added degree of assurance that the plant is designed, constructed, and operated without undue risk to the health and safety of the public, safety classes have been assigned to applicable systems and components used in the plant design. The changes being allowed by this modification represent a change in the safety classification of components which is therefore a change in the facility as described in the USAR.

Safety Evaluation: There will be no change in the valves' operating capabilities and their seismic and environmental qualification is not adversely affected by this change. Therefore, the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR will not be increased.

The new fittings are essentially equivalent in form, fit, function and material to the originally specified fittings. Therefore, the possibility of an accident or malfunction of a different type than any previously evaluated in the USAR will not be created.

The margin of safety as defined in the Technical Specification will not be reduced due to this change.

PLANT MODIFICATION REQUEST: 03239 Revision: 0

Title: Waste Gas Compressor Valve Modification

Description: This modification involves the machining of a holder assembly to accommodate the fit of a newly designed flow control valve located on the waste gas compressor skid. This component is designated as special scope and designed for pressure boundary purposes only.

Safety Evaluation: The design basis of this special scope component is for pressure boundary purposes and this change does not affect any design basis accidents. No credible malfunctions exist that may directly or indirectly affect equipment important to safety and there is no change to the probability of occurrence of a malfunction. No accidents or malfunctions different from those evaluated in the USAR can be created.

There are no margins of safety defined in the Technical Specification Bases which could be affected by this modification.

PLANT MODIFICATION REQUEST 03247 Revision: 0

Title: Sump Pump Tubing Addition

Description: This modification provides for the installation of stainless steel tubing to redirect the flow from the orifice holes in the discharge lines of Sump Pumps PLF07A and PLF07B back to the sump. The 1/4 inch orifice holes were provided to extend pump life during containment isolation conditions.

Safety Evaluation: Pumps PLF07A and PLF07B are non-safety related and this modification will not affect any equipment important to safety. This change only extends the point of discharge and does not change the quantity of recirculation fluid or affect the sump pumps. Therefore, there is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

This modification redirects flow using a small tube from the pump recirculation orifice discharge back into the sump pit without affecting the pump. Therefore, there is not a possibility that an accident or malfunction of a different type than any previously evaluated in the USAR is created.

No margin of safety as defined in the bases for any Technical Specification is affected by this modification.

PLANT MODIFICATION REQUEST: 03249 Revision: 0

Title: Motor Stator Life Extension

Description: American Warming and Ventilating Inc. (AWV) used an activation energy of 0.46 electron volts (eV) in calculating the qualified life of the motor stator (P/N 31-89) in the Raymond Control System Electric Damper Actuators. It was later determined through the NRC accepted method of Thermographic Analysis on the winding insulation material to have an actual activation energy of 1.49 eV. This gives a

qualified life in excess of 40 years instead of the previously calculated 5.3 years. This modification deletes the replacement requirement for these motor stators.

Safety Evaluation: The activation energy of 0.46 eV assumed by AWV is a conservative value compared to the actual activation energy of the majority of materials used in power plant equipment. This modification relates only to a change in the replacement requirement of the motor stators and does not include any physical change to the motor or relevant system. Therefore, the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR has not been increased.

There is not a possibility that an accident or malfunction of equipment important to safety of a different type than any previously evaluated in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03254 Revision: 0

Title: M622.1 Disconnects Seismic Qualification

Description: This modification involves the use of Panduit Corporation vinyl-insulated piggy-back disconnects in Control Room Air Conditioning Units SGK04A, SGK04B, SGK05A and SGK05B. The disconnects are being installed as like for like replacements of existing disconnects.

Safety Evaluation: The air conditioning units are the only affected components and their safety function is not compromised by this modification. The units have the same probability of failure as they did before this modification. Therefore, there is no increase in the probability of occurrence and the consequences of an accident or malfunction of safety related equipment.

Since no other systems or components are involved, an accident or malfunction of a different type from any previously evaluated in the USAR will not be created.

The air conditioning units perform their safety function as defined in the Technical Specifications in the same manner. Therefore, the margin of safety as defined by the bases in any Technical Specification is not reduced.
PLANT MODIFICATION REQUEST: 03256 Revision: 0

Title: Containment Atmosphere Control System HEPA Filter Leak Testing Deletion

Description: This modification deletes the Containment Atmosphere Control System (CACS) HEPA Filter Leak Test from the USAR. The CACS consists of two redundant 100% recirculation filter adsorber units located inside the Containment Building. Its function is to reduce airborne particulates and radioiodines during periods of occupancy and prior to and during purge operations. Performing a leak test ensures that air flow is not bypassing the HEPA filters without being processed.

The information provided by performing a leak test on a 1002 recirculating system does not contribute significantly to ensuring that the system performs its function. Because the GACS does not have any inlet ductwork, temporary duct must be constructed to meet the inlet conditions requirements of a leak test. This represents a considerable amount of radwaste over the life of the plant. ALARA concerns and solid radwaste reduction policies over the life of the plant support the deletion of the CACS HEPA filter leak test.

Safety Evaluation: This system is non-safety related. An accident (producing a high radiation level in Containment) signaling the actuation of the Containment isolation valves precedes the manual operation of the CACS. The CACS actuation follows an accident and not the reverse; therefore adsorber and filter leakage will not initiate an accident. The CACS adsorber and filter leakage will increase the amount of time to process the Containment atmosphere for clean up but will still decrease (design function) the accident consequence of elevated radiation levels. The CACS is self-contained and has no link (tie) with any other system; therefore adsorber leakage will not affect or cause malfunctions of other safety equipment.

The consequences of CACS adsorber and filter leakage will result in a large amount of time to process the Containment atmosphere for clean up. There is no possibility that an accident or malfunction may be created of a different type than any evaluated previously in the USAR.

The deleted requirement to perform adsorber and filter leak testing could result in increased Containment clean up time, but this is not a reduction in the margin of safety as defined in any Technical Specifications.

PLANT MODIFICATION REQUEST: 03258 Revision: 0

Title: Plant Heating Secondary Loop Pump Electrical Conduit Rerouting

Description: This modification involves avoiding a tripping hazard by rerouting of the Plant Heating Secondary Loop Pump PGA05 Electrical Conduit 506039. In order to comply with the electrical conduit support requirements, two conduit supports utilizing typical details shall be provided. One existing support shall remain while all others on the existing route shall be removed.

Safety Evaluation: Conduit 5U6039 is non-nuclear safety related. The conduit supports are special scope. The change is strictly a re-route of the subject conduit to avoid a tripping hazard and to provide a supporting system to meet the original electrical conduit design criteria. Therefore, the safe operation of the conduit or plant heating system will not be affected by the changes performed. The probability of occurrence of an accident previously evaluated in the USAR is not increased.

The changes performed do not involve or affect plant conditions or systems as referenced in the USAR for postulated accidents. The affected components do not fall into the category of essential components for the ultimate mitigation of consequences of a design basis accident. Therefore, the consequences of any previously evaluated accident is not increased.

There is not a possibility that an accident or malfunction of equipment important to safety different than any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03261 Revision.

Title: MSIV And FWIV Hydraulic Reservoir Level Indication

Description: This modification provides hydraulic reservoir level indication in the Main Steam Isolation Valves (MSIVs) and Feedwater Isolation Valves (FWIVs) during normal operating conditions of actuator retracted and accumulators fully charged. To provide correct level measurement, the lengthening of the MSIV level dipstick is included.

Safety Evaluation: This modification improves the ability to perform inspections and maintenance of the valves. The operability of these

values or any other equipment important to safety remains unaffected. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR is not increased.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined by the bases in any Technical Specification.

PLANT MODIFICATION REQUEST: 03269 Revision: 0

Title: Waste Evaporgior Concentrate Pump Impeller

Description: This modification replaces the impeller associated with the Waste Evaporator Concentrate Pump (SHB09) with the impeller of Recycle Evaporator Concentrate Pump (SHE03). The waste and the recycle evaporators are similar types of units and are interconnected that the serve as a standby for each other under abnormal condition The portions of the waste evaporator which normally are in contact wich the evaporator concentrates are constructed with corrosion resistant material, such as Incoloy 825 piping and £110y 20 valves. These materials provide greater operating flexibility regarding chemistry limitations on the influent waste than stainless steel used for the recycle evaporator. The materials used in the recycle evaporator are more susceptible to chloride stress corrosion from floor drains. Use of the recycle evaporator is restricted to abnormal situations. Precautions are taken to ensure that a substitute evaporator is cleaned both before and after its use as a substitute waste evaporator.

Safety Evaluation: " - 'ected components serve no safety related function and this c... does not affect any previously analyzed parameter or assumed release paths. Therefore, there is no increase in the probability of occurrence or the consequences of an accident. The hydraulic performance of the pump will not be adversely affected by this change. Because the affected components are not safety related, the probability of occurrence or the consequences of a previously evaluated malfunction of safety related equipment is not increased.

The design of the two impellers is the same except for material selection. Failure of these non-safety related components has no adverse impact on any equipment important to safety. There is no possibility that an accident or malfunction of a different type than any previously evaluated in the USAR may be created.

The margin of safety as defined in the bases for the Technical Specifications is not reduced.

PLANT MODIFICATION REQULST: 03273 Revision: 0

Title: Auxiliary Boiler Room Expansion Joint Replacement

ciption: A fire joint design is being provided as a replacement ex, ansion joint of a failed wall seal at the boundary of a three hour fire zone (Auxiliary Boiler Room) and the outside of the Auxiliary Building.

Safety Evaluation: This modification is located at a joint outside of any flow paths for radiological release, thus there would be no increase in accident consequences previously evaluated. The Auxiliary Boiler Room does not possess any equipment important to safety and the expansion joint does not directly affect the consequences resulting from a malfunction of equipment important to rafety.

This seal does not affect any safety related equipment so there is no possibility that an accident or malfunction of equipment important to safety of a different type than any evaluated previously in the USAR may be created.

There are no margins of safety defined in the Technical Specification Bases that pertain to the Auxiliary Boiler Room.

PLANT MODIFICATION REQUEST: 03274 Revision: 1

Title: Incore Flux Thimble Dimension

Description: The proposed change modifies the description of a dimension on the drawing which defines the length of the incore flux thimble extension above the bottom core plate. The modification will allow the length of the thimble to be shorter if the thimble is repositioned after in tial installation. Repositioning may be required to minimize interaction between the thimble and its support which can lead to reduced thimble wall thickness.

Safety Evaluation. After repositioning, the thimble will meet the same structural integri ' and pressure retaining requirements as the original installation. The propose to pressure and flow transients will be the

same for the repositioned thimble as the original installation. The only effect of the repositioned thimble is that the movable miniature neutron detectors in repositioned thimbles cannot be inserted as far through the fuel assembly as detectors in thimbles which have not been repositioned. This may have some effect on the ability to obtain a complete flux profile for that fuel assembly. The effect of the shorter thimbles on the flux profile will be monitored and if it is determined that the tube length is unacceptable for obtaining a proper flux profile, the thimble will be replaced instead of repositioned.

The repositioned thimble will meet the same structural integrity and pressure retaining requirements as the original installation, and the response to pressure and flow transients will be the same. Therefore, there is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety.

There is no possibility that an accident or malfunction of equipment important to safety different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03275 Revision: 0

Title: Fire Extinguisher Relocation

Description: This modification involves relocating a fire extinguisher from room 3612 to the west wall of Corridor 3611. The current placement for the 20 pound carb^{- d}ioxide fire extinguisher interferes with the office arrangement. 3612 and Corridor 3611 do not contain any safety related equipn

Safety Evaluation: The general code requirements of the National Fire Protection Association (NFPA) for the placement of fire extinguishers are two fold. First, NFPA-10 Section 1-4.3 states "extinguishers shall be conspicuously located where they will be readily accessible and immediately available in the event of fire". The extinguisher will be immediately available by not only persons occupying room 3612 but this new location makes the extinguisher conspicuously located for all persons in the area. Secondly, the travel distance to the extinguisher from persons occupying room 3612 does not exceed the 50 feet travel distance required by NFPA-10 Section 3-3.1.

This fire extinguisher is not a safety related component. Therefore, there is no increase in the probability of occurrence and the

consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

Relocation of the fire extinguisher does not affect any safety related components. There is no possibility that an accident or malfunction of equipment important to safety different than any evaluated previously in the USAR is created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03277 Revision: 0

Title: RM-80 "OPERATE" Indicator Bulb Removal

Description: The purpose of this modification is to remove the OPERATE indicator lamp bulb (locsted on the front panel of the RM-80 radiation monitor) from each safety related monitor and those non safety related monitors that perform a control function. The lamp has been identified as a source of voltage transients known to cause the RM-80 to spike into high alarm. Its removal will improve monitor reliability.

Safety Evaluation: The OPERATE indicator is for local indication only and is unnecessary for the operation of the monitors. Remote indication of the monitors' status will still be provided in the Control Room. Semoval of the bulbs will not degrade the environmental or seismic qualifications of the monitor. Therefore, there is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

Removal of the OPERATE bulbs will not affect the operation of the monitors and will therefore not create an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR.

There is no reduction in the margin of safety defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03278 Revision: 0

Title: Moisture Separator Reheater Bulkhead Drainline Replacement

Description: This modification involves the unplanned replacement of worn carbon-steel piping components in the Moisture Separator Reheater (MSR) bulkhead drainlines with low-alloy steel components during the time period after Refuel IV outage through Refuel VI outage. The new components are made up of Cr-Moly, which is a better erosion/corrosion material. Thereby, replacements will provide a longer lifetime than obtainable with the original material.

Safety Evaluation: Change of piping material from low-carbon steel to the low-alloy steel does not adversely affect original analysis. Thus, the change will not increase the probability of occurrence and the consequences of an accident or malfunction previously evaluated in the USAR.

The Main Turbine System does not contain any safety related or special scope piping componer. There is no possibility that an accident or malfunction of a different type than any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03282 Revision: 0

Title: Terminal Box Drain Holes

Description: This modification allows for drilling 1/2 inch diameter drain holes in the bottom of the terminal boxes for two of the Main Steam Isolation Valves (MSIVs) and the Feedwater Isolation Valves (FWIVs) in response to a concern regarding possible submergence of electrical circuits located above the flood level caused by water intrusion and lack of drainage in electrical boxes.

Safety Evaluation: Addition of drain holes will decrease the probability of losing control circuit power to the MSIV solenoid valves which would prevent the MSIVs from closing. This additional assurance that the MSIV cerminal boxes won't flood does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

The possibility of a new type of accident or malfunction is not created by the addition of drain holes.

The design change has no affect on the margin of safety defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03283 Revision: 0

Title: Halon Release Isolation Contact Rewire

Description: This modification involves wiring changes to the halon shutdown contacts to the class IE electrical equipment air conditioning units. These wiring changes are being made to provide a design which complies with the described operation of the air conditioning unit. With a fire in either Engineered Safety Features switchgear room, only the air conditioning unit associated with the room with a fire is shutdown.

Safety Evaluation: The safety related function of the class IE electrical air conditioning equipment is to operate in a continuous recirculation mode to maintain the Engineered Safety Features switchgear rooms, the battery rocms, and the DC switchgear rooms at or below the design temperature. While he refrigeration subsystem is in operation, the amount of cooling provided is self-regulated by the air conditioning unit control circuit. The principal control functions are provided by a temperature switch/step controller which automatically starts and stops the air conditioning units as required. Indication of a loss of preferred AC power, or a Loss Of Coolant Accident (LOCA) will automatically initiate the class IE electrical equipment air conditioning system if not in operation.

By making the subject wiring changes the system will then be designed per the original operational intent and thus only the air conditioning unit associated with the room that has a fire will be stopped. Therefore, the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR is not increased.

This modification does not create the possibility of an accident or malfunction of equipment important to safety of a different type than any previously evaluated in the USAR.

There is no reduction in the margin of safety as defined in the bases for any Technical Specificatio . PLANT MODIFICATION REQUEST: 03290 Revision: 0

Title: Diesel Driven Fire Pump Right Angle Gear Drive Drain Modification

Partription: This modification installs three 3-inch pipe nipples, a 90 degree elbow, a bronze gate valve, and a pipe cap on the gear drive unit of the Diesel Driven Fire Pump to facilitate periodic oil changes.

Safety Evaluation: This modification meets the original design requirements and has no impact on the operation of the pump. None of the accidents previously evaluated in the USAR are impacted. The Diesel Driven Fire Pump provides a backup source of water in the event the Motor Driven Fire Pump is not available. The only effect of a failure of this pump is a loss of fluid flow which can still be obtained by an independent electric motor driven pump. Therefore, there is no increase in the probability or the consequences of a malfunction of equipment important to safety previously evaluated in the USAR.

There is no possibility that an accident or malfunction of equipment important to safety of a type different than any evaluated previously in the USAR is created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03296 Revision: 0

Title: Diesel Generator Deluge Valve Piping Modification

Description: This modification involves the rerouting of priming water piping and the addition of a gate valve to the deluge valves in the Diesel Generator Building Rooms A & B. This provides isolation of the domestic priming water from the Fire Protection System to enhance plant personnel safety.

Safety Evaluation: The addition of the gate valve, along with the diaphragm chamber supply control valve and check valve, will eliminate the possibility of contamination of the domestic water supply by the fire protection water. Also, this modification will allow maintenance to have access to the domestic water supply in the Diesel Generator Building for cleaning purposes.

The design change of adding a gate valve and a reconfiguration of priming water piping will not compromise the performance of the deluge valves nor will it alter the integrity of the piping system and components. Failure of a deluge valve will cause a failure of the Automatic Sprinkler System. In this event, fire hose streams are available to control the fire. Therefore, there is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

There is no possibility that an accident or ma function of equipment important to safety of a type different then any evaluated previously in the USAR is not created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03312 Revision: 0

Title: Changes To Nukon Insulation On Steam Generators

Description: This modification makes the following changes to the Nukon Insulation and its support system as used on all Steam Generators: 1) Provides an access door in the lagging to reach the Steam Generator main support flange bolts. 3) Provides a removable Nukon Insulation Pac above the bolts. 3) Provides for trimming an inner support ring. 4) Provides for the welding of a nut inside the radial arm tube. 5) Provides for the changing of the bolt to one compatible with the welded nut.

Safety Evaluation: This modification has no impact on any safety related equipment. It provides for making the Ultrasonic Testing Examination of the Steam Generator main support flange bolts during an Inservice Inspection much easier, quicker, and with less radiation exposure. Neither the insulating effects nor the structural integrity of the Nukon Insulation and its support system is impaired by this change. Therefore, the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR is not increased.

The modification is performed to the original design and there is no impact to the Steam Generators or their supports. There is no possibility that an accident or malfunction of equipment important to safety different from ny evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLAN[®] MODIFICATION REQUEST: 03316 Revision: 0

Title: Pressurizer Sample Line Insulation

Description: This modification provides 1 inch of Nukon Insulation on a 4 inch extension beyond the I-beam of the 3/8 inch Post Accident Sample System line. It also provides an additional strut and a 3-directional clamp approximately 3 feet above the elbow.

Safety Evaluation: The addition of insulation to the Pressurizer sample line is to protect personnel from burns occurring when grabbing the line. A passive change of this nature, which does not alter the flow path, the structural integrity or component function, will not increase the probability of occurrence or the consequences of a previously evaluated accident or malfunction of equipment important to safety.

This design, including its installation, adds no active component to the plant that could malfunction, nor does it interface with any other safety system. Therefore, the possibility of an accident or malfunction of equipment important to safety different than any previously evaluated is not created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03321 Revision: 0

Title: Pressurizer Relief Tank Nitrogen Supply Isolation Valve Isolation

Description: This modification provides an isolation valve upstream of the Pressurizer Relief Tank Nitrogen Supply Isolation Valve BB PCV8034. Support R506 will be relocated to a position below the grating to allow easier access to the new valve. The only safety related portion of the modification is the welding of support R506 to a safety related structure.

Safety Evaluation: The addition of the isolation valve and relocation of the support allows maintenance on valve PCV8034 without shutting down the entire power block nitrogen supply. The addition of a valve and the relocated support are per the existing design criteria, so the piping structural integrity is not affected. Therefore, there is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR. There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no effect on equipment important to safety and because the Technical Specifications do not address the pressure relief tank or nitrogen supply to it, no margin of safety as defined in the Technical Specifications is reduced.

PLANT MODIFICATION REQUEST: 03339 Revision: 0, 1

Title: Containment Cooling Unit Heat Exchanger Return To Service

Description: This modification involves returning Containment Cooling Unit Heat Exchangers SGN01A, B, C, & D to service with the total heat transfer capability less than what was originally installed. An evaluation was conducted to assess the impact of reducing the Containment cooling heat exchanger heat removal capacity.

As a part of this evaluation, an updated Containment response analysis was performed for the Main Steam Line Break (MSLB) Inside Containment Accident. This analysis utilized the results of two computer codes which are different than those described in the USAR. The LOFTRAN code was used instead of the MARVEL code to generate mass and energy release data for postulated steam line break accidents. In addition the CONTEMPT-LT/028 code was used instead of the COPATTA code for the Containment response analysis which calculates peak Containment pressure and temperature. Both the LOFTRAN code and the CONTEMPT-LT/028 code have been reviewed and approved by the Nuclear Regulatory Commission.

Safety Evaluation: The analysis calculated the effects of reduced Containment cooling heat removal capability on the calculated peak Containment pressure and temperature. It conservatively determined that the Containment cooling heat performance could be reduced by as much as 39% (per Containment cooling unit train) and still maintain the Containment pressure below the peak Containment pressure described in the USAR of 48.1 psig.

During normal operation, as described in the USAR, Containment cooling heat removal rate is such that three out of the four cooling units can provide the required amount of cooling capacity. Therefore, the total degradation of all four cooling units can be as much as 25% without affecting the required heat removal rate.

There is no effect on the probability of occurrence or the radiological consequences of a MSLB or Loss Of Goolant Accident (LOCA). The MSLB accident analysis for reduced heat exchanger performance results in a peak Containment pressure which is bounded by the accident analysis results present in the USAR. LOCA analysis shows the peak Containment pressure to occur early in the accident scenario. The Containment cooling units remove an insignificant amount of energy from Containment during the first two minutes of the accident. Therefore, cooling unit performance has an insignificant effect on peak pressure during LOCAs.

As long as Containment cooling unit operation is maintained within the limits on total Containment cooling heat performance reduction described above, there are no credible malfunctions of equipment important to safety which are affected by this change.

There is no possibility that an accident or malfunction of equipment important to safety of a different type than any evaluated previously in the USAR may be created.

The results of the analysis of the proposed change show that the temperature of Containment air during normal operation and the peak Containment pressure during accident conditions are within the values described in the Technical Specifications. Therefore, there is no reduction to the margins of safety.

PLANT MODIFICATION REQUEST: 03343 Revision: 0

Title: Emergency Diesel Generator Standby Lube Oil Heater Control Circuits

Description: This modification to control circuits to Emergency Diesel Generator Standby Lube Oil Heaters EKJ02A & B will prevent the heaters from being energized during diesel engine operation. It is accomplished by retermination of a jumper in the Motor Control Center.

Safety Evaluation: The standby lube oil heater in the Emergency Diesel Engine Lucrication System (EDELS) is designed to maintain the lubrication oil in a warm condition when the engine is on standby to facilitate quick starting, when required. Implementation of this modification has no adverse effect on the EDELS. The automatic operation of this system will remain unchanged. The modification of the standby lube oil heater control circuits will not increase the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety.

This modification does not create any fire hazard, as no combustible material is being added; nor does it affect the ability of the existing fire protection system to perform its function. System operation remains unchanged. There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created. There is no reduction in the margin of safety as defined by the bases of any Technical Specification.

PLANT MODIFICATION REQUEST: 03345 Revision: 0

Title: Essential Service Water Permanent Pressure Indicator Addition

Description: This modification provides for the addition of permanent Pressure Indicators EF PI109 and PI110 in the Essential Service Water (ESW) return lines to the Service Water (SW) System. These indicators, located in the Control Building, will provide for permanent local indication of ESW pressure at the return lines.

Safety Evaluation: The addition of the two seismically-designed pressure indicators provide local indication of ESW pressure at the return lines to the SW System. Because they are seismically designed, their only possible failure mode is the loss of their indication function. Since this function of indication satisfies no safety requirements, such a failure would have no safety impact on the ESW System or any other system, component or structure. Therefore, there is no increase in the probability of occurrence or the consequences of any previously svaluated accident or malfunction of the equipment important to safety.

The design changes do not alter the seismic, environmental or equipment qualification of any system, component or structure. There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03346 Revision: 0

Title: Brake Solenoid, Raymond Control System Actuator Material Change

Description: This modification is a change of the outer wrap material for the brake solenoid of the Raymond Control Systems electric actuators from fiberglass tape to polyester film tape.

Safet; Evaluation: The motor is equipped with a braking assembly (including the brake solenoid) to ensure that shaft rotation is halted,

which prevents overtravelling of the output shaft when the solenoid coil is de-energized. The brake must completely disengage when power is applied. Thus, the function of the solenoid is safety related.

The old solenoid design used polyester film tape as the inner wrap and fiberglass tape as the outer wrap. The new design uses polyester film tape as both inner and outer wraps. Polyester film tape was evaluated as the inner wrap of the solenoid and has a qualified life of over 40 years 6 months. This evaluation can also be applied to the polyester tape used as the outer wrap, therefore, it will also be qualified for over 40 years 6 months and no increased maintenance of the actuators or solenoids will be required.

Based on the above, changing the material of the solenoid outer wrap does not adversely affect the design function of the brake solenoid. Therefore, there is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined by the bases in any Technical Specification.

PLANT MODIFICATION REQUEST: 03347 Revision: 0

Title: Service Water System Permanent Pressure Indicator Addition

Description: This modification provides for the addition of permanent Pressure Indicators EA PI34, 35, 37 and 38 in the Service Water System (SWS). These indicators, located in the Turbine Building, will provide local indication of SWS pressure at flow orifices EA FE34, 35, 37 and 38, respectively.

Safety Evaluation: This modification is accomplished with the addition of non-safety related components (indicators and tubing) in the Turbine Building. The SWS is not safety related and is not required for safe shutdown. The modifications are not associated with any safety related system, component or structure. The only impact on the USAR is to Figure 9.2.1, sheets 1 and 2, which would require revision to reflect the pressure of the new indicators. Therefore, there is no increase in the probability of occurrence and the consequences of any previously evaluated accident or malfunction of equipment important to sofety.

This modification does not affect any seismic, environmental or equipment qualification of any system, component or structure. There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03349 Revision: 0

Title: Spent Fuel Pool Pump Room Cooler Flange Addition

Description: This modification provides flanges on the inlet and outlet sides of the cooling water to Spent Fuel Pool Pump Room Cooling Units SGG04A & B.

Safety Evaluation: The installation of the flanges will not impact the pressure boundary or the seismic analysis for these components. Accident and safety related equipment malfunction probabilities and consequences previously evaluated in the USAR are not increased.

A different type of accident or malfunction of equipment important to safety is not created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03350 Revision: 0

Title: Power Operated Relief Valve Position Switch Cover Capscrew Replacement

Description: This modification involves replacement of the Power Operated Relief Valve (PORV) position switch cover capscrews. A new torque value was calculated after a screw broke during torquing to the value specified by the instruction manual. All the screws are being replaced because of elongation. The new value is 8 ft-lb.

Safety Evaluation: The safety related function of the position switch cover capscrews is to assure environmental seal integrity for the position switches. The reduced torque value on the sealing gasket will improve the reliability of the gasket by preventing the potential failure of a screw caused by over-torquing and will still provide the proper stresses required to assure environmental seal integrity. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety has not been increased.

There is no possibility that an accident or malfunction of equipment important to safety of a different type than previously evaluated in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03354 Revision: 0, 1

Title: Essential Service Water Loss Of Coolant Accident Mode Flow Reduction

Description: This modification allows for a 200 gpm reduction of the Essential Service Water (ESW) post Loss Of Coolant Accident (LOCA) flow delivered to the Component Cooling Water (CCW) Heat Exchangers EEG01A/B. This reduction is required to ensure that the design basis LOCA flows are supplied to the remaining components in the ESW System.

Safety Evaluation: The ESW flow reduction through the CCW heat exchangers while i e LOCA alignment was evaluated and determined to have no effect on the peak Containment pressure/temperature following a large break LOCA as evaluated by the current Containment pressure/temperature transient analysis. During the post LOCA recirculation phase the Containment pressure/temperature remains slightly higher than the current Containment pressure/temperature transient analysis. This affects only the equipment qualification and is enveloped by the current equipment qualification submittals.

The accident heat removal capability of the components is not significantly affected and an increase in pressure does not increase assumed Containment leakage and potential offsite doses. Therefore, the subject modification does not involve an increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

There is no possibility that an accident or malfunction of equipment important to safety of a different type than previously evaluated in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03357 Revision: 0

Title: Post-LOCA Minimum Essential Service Water Low Flow Acceptance

Description: This modification accepts an identified low post Loss Of Coolant Accident (LOCA) minimum Essential Service Water flow rate to the following components; Auxiliary Feed Pump Room Cooler SGF02B, Fuel Pool Pump Room Cooler SGG04B, and Instrument and Service Air Compressor CKA01B.

Safety Evaluation: Evaluation of the flow for each component has shown that each continues to meet or exceed design basis accident requirements. Therefore, there is no increase in the probability of occurrence or the consequences of an accident.

Since there is no change being made to the equipment, the heat loads, or the design basis accident heat removal requirements, the probability of occurrence and the consequences of a previously evaluated malfunction of safety related equipment will not be increased.

There is no possibility that an accident or malfunction of equipment important to safety different than any evaluated previously in the USAR may be created.

The as measured flows do not reduce the margins of safety as defined in the Technical Specifications.

PLANT MODIFICATION REQUEST: 03361 Revision: 0

Title: Use Of Noninsulated YSV Type Bundy Butt Splice

Description: This modification makes a drawing change to the repair section of an electrical equipment cable detail drawing which allows the use of a noninsulated YSV Type Bundy Butt Splice with WCSF-N Type Raychem Its Mation. The butt splice is designated for use to allow repair of the existing cable/wire conductor in lieu of replacement.

Safety Evaluation: The addition of the butt splice will prevent the possibility for damage being caused while routing new cable. In addition, the added conductor resistance, provided by a butt splice, is considered insignificant (no significant current restriction) and the insulation resistance of WCSF-N type Raychem insulation has been tested and qualified for use in a harsh environment. Therefore, the use of the subject butt splice does not jeopardize the function of the affected cable/wire conductor.

The safety related function of the affected cable/wire conductors is to provide safety related power to safety related loads. As stated above, no significant failure potential has been added to the cable/wire conductor by use of the butt splice, thus no significant failure potential in the function of any associated safety related equipment has been induced. Therefore, the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety has not been increased.

The possibility of an accident or malfunction of equipment important to safety of a different type than previously evaluated in the USAR has not been created.

There is no reduction in the margin of safety as defined in the bases for any "ochnical Specification.

PLANT MODIFICATION REQUEST: 03365 Revision: 0

Title: Piping And Instrument Diagram Revision Of Valve Symbol

Description: The Piping and Instrument Diagram (P&ID) M-12FB01 for the Auxiliary Steam System indicates that valve FBV0032 is a pressure relief valve. The installed valve is an angle valve. A review of the system has concluded that the valve should be an angle valve, as installed, so the purpose of this design change is to change the P&ID.

Safety Evaluation: This is a drawing change only. The are no hardware changes to the plant and this change does not affect the operation of any system or component. No procedures, activities, or controls are affected. Therefore, previously evaluated accidents and malfunctions are unaffected and the margin of safety is not reduced.

PLANT MODIFICATION REQUEST: 03377 Revision: 0

Title: Refueling Water Storage Tank Seismic Reanalysis

Description: In response to a request by the NRC under the guidance of the Standard Review Plan (SRP) Draft Revision 2, Section 3.7.3; seismic reanalysis of the Refueling Water Storage Tank (RWST) is needed to evaluate the effect of Soil Structure Interaction (SSI).

Specifically, the original analysis assumed a rigid tank, not considering both vertical and horizontal motions induced by the fluid in

the tank during a seismic event. Calculations provided evidence that the existing RWST support design is sufficiently conservative to withstand the additional affects of SSI for both horizontal and vertical motions. This includes connecting piping, tubing, associated supports, foundations and tank nozzles.

Safety Evaluation: The results of the analysis show that the RWST structure, its foundations, connecting piping, tubing, the associated supports, and the tank nozzles are structurally adequate in their asbuilt condition without any modifications and comply with the Acceptance Criteria of Draft Revision 2 of SRP Section 3.7.3. The new RWST analysis, however, does result in higher loads on the connecting piping supports caused by high tank displacements. This design change consists of revising design documents to incorporate the new RWST seismic analysis including new pipe support loads and does not involve any physical modifications to any systems, components or structure.

As descri. . in the USAR, the RWST is a passive seismic Categor I component and is required only during the short term following a Loss Of Coolant Accident, Main Steam Line Break, or any other accident requiring Emergency Core Cooling System (ECCS). The seismic reanalysis of the RWST will not impact its design basis since the structural integrity, function, and operability of the RWST is unaffected.

Because no physical or design basis changes are being made, the RWST siesmic reanalysis will not affect the structural integrity, function, or operability of the RWST or any other system or component. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

No margin of safety is reduced as the design basis of the RWST and associated system remain unchanged.

PLANT MODIFICATION REQUEST: 03400 Revision: 0

Title: Exhaust Hood Spray Control Valve Drawing Change

Description: This modification revises drawings and diagrams, including USAR Figure 10.2-1 to show the Exhaust Hood Spray Control Valve AC FV0191 as normally closed. The valve position is normally closed and this condition is found in the actual plant configuration.

Safety Evaluation: There is no physical change to plant equipment initiated by this modification so previously evaluated accidents and malfunctions are not affected and no change to any margin of safety exists.

PLANT MODIFICATION REQUEST: 03426 Revision: 0

Title: Warehouse Cargo Door Security Upgrade

Description: Two of the roll-up cargo doors (102-4 and 102-5) located at the Warehouse were replaced with new doors. The new doors are different than the old ones and all of the existing security devices would not fit on the new doors. The type of devices and the interlock were modified and installed on the new doors.

Safety Evaluation: The integrity of the new system layout was approved by the Security organization when installed. The design function is still being met with the new roll-up doors. This design change will require a change to the Wolf Creek Generating Station (WCGS) Security Plan (USAR Section 13.6). The changes made to the system do not decrease the level of security. There are no changes made that could increase the probability of occurrence and the consequences of an accident or malfunction of sefety related equipment previously evaluated in the USAR.

There are no changes made to the Security System that would create the possibility of an accident or malfunction of equipment important to safety different than any previously evaluated in the USAR.

There are no changes made to the Security System that would reduce the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03432 Revision: 0

Title: Portable Demineralizing System Connection Addition

Description: This modification involves the addition of permanent connections to tie in a portable demineralizing unit when the original Demineralized Water System is out of service. Permanent connections are desired to eliminate the need to temporarily modify the Demineralized Water System every time the portable demineralizers are used. Critical design characteristics are the same as the original system. Safety Evaluation: The Demineralized Water System is non-safety related and does not represent a threat to any safety related equipment, activities, or mitigation of an accident. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

The modification is located in the Shop Building which is remotely located from any safety related equipment. Therefore, there is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined by the bases in any Technical Specification.

PLANT MODIFICATION REQUEST: 03437 Revision: 0

Title: Hydrogen Analyzer Subcomponent Qualified Life Recalculation

Description: Previously, the subcomponents of the J-359 hydrogen analyzer ware divided into several groups, and the qualified lives of each subcomponent were calculated by using a conservative activation energy for all the materials in each group. This method was unnecessarily conservative. With this revision, the qualified life of each subcomponent is calculated based on its own activation energy and aging data. USAR Table 3.11(B)-3 will be revised to reflect these new values.

Safety Evaluation: Recalculating the qualified lives of the subcomponents of the hydrogen analyzer using actual activation energies and environmental parameters for each subcomponent has no effect on previously evaluated accidents or safety related equipment malfunctions.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined by the bases in any Technical Specification.

PLANT MODIFICATION REQUEST: 03439 Revision: 0

Title: First Stage High Pressure Turbine Shell Pocket Drain Line Replacement

Description: This modification constitutes replacement of existing carbon-steel piping material with low-alloy steel and careful control of socket-weld gaps to reduce localized turbulence in the First Stage High Pressure Turbine Shell Pocket Drain Line. The low-alloy steel is more resistant to erosion/corrosion (E/C) wear which has caused abnormal pipe-wall thinning in the previous drain lines.

Safety Evaluation: Change in piping material from carbon-steel to lowalloy steel and careful control of socket-weld gaps will reduce the probability of leakage/rupture of subject small bore process piping in the Turbine Building created by E/C wear. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

Because the subject piping is non-safety related and is located in the Turbine Building, which contains non-safety systems, there is no possibility that an accident or malfunct'on of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There are no margins of safety defined in the Technical Specification Bases which could be affected by this change in the subject piping.

PLANT MODIFICATION REQUEST: 03450 Revision: 0

Title: Rigging Beam Capacity Rating Correction

Description: The monorail rigging beam ratings for Component Cooling Water Pump Hoists HKF12B and HKF12C are listed as having a 5 ton capacity for each hoist on drawings M-1G030 and M-1G029. This modification is a correction of the drawings to represent the proper capacity of 3 tons each. This change will also revise USAR Figures 1.2-18 and 1.2-19.

Sufety Evaluation: This change does not involve making any physical modifications to the facility or have any effect on the form or function of the hoists themselves. It is merely a correction of a drawing error and does not affect any previously evaluated accidents or safety related equipment malfunctions. There is no reduction of any margin of safety.

PLANT MODIFICATION REQUEST: 03457 Revision: 0

Title: Absorber Room Physical Description Revision

Description: The physical description of Absorber Rooms A and B is reversed in the Notes and Legend for Rooms 6303 and 6304 on Drawing A-1804. USAR Figure 9.5.1-2 will be changed to reflect proper room description.

Safety Evaluation: This is strictly a drawing change, there is no physical change to any equipment. Previously evaluated accidents and safety related equipment malfunctions remain unaffected and the margin of safety is not reduced.

PLANT MODIFICATION REQUEST: 03507 Revision: 0

Title: Area Temperature Monitoring Alarm Setpoint Change

Description: The high temperature alarm setpoints for a number of rooms in the Diesel Generator (DG) Building and Essential Service Water (ESW) Pumphouse were previously changed to conform to the values given in Technical Specification Table 3.7-4. This change allows Technical Specification Surveillance Requirement 4.7.12 to be accomplished from the control room. All documentation changes to the Logic Diagrams (J-02s) and Computer Setpoint Document (WCRE-02) were made at that time. None of the high temperature alarm setpoints were referenced in the USAR except for the two areas listed above. The USAR presently lists the old high temperature alarm setpoints, this modification provides a change to the related USAR sections.

Safety Evaluation: The design change affecting the USAR involves only a monitoring function of alarms and does not impact any previously evaluated malfunction of equipment important to safety.

The subject change is unrelated to accidents previously evaluated in the USAR and could not possibly create a different type of accident.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03509 Revision: 0

Title: As-Built Detail To Sargent & Lundy Drawings

Description: This modification provides a correction to Air Release Lines 1FP143A and 1FP145A on Sargent & Lundy Drawing M-23 Sheet 1. The drawing indicates the lines to be 2 1/2 inches. This modification revises the drawings to reflect the / ginally designed size of 2 inches.

Safety Evaluation: There is no physical change to plant configuration, only a drawing revision to reflect original design. Therefore, previously evaluated accidents or malfunctions are not affected.

PLANT MODIFICATION REQUEST: 03511 Revision: 0

Title: NUREG-0588 Appendix E LOCA And MSLE Category Change

Description: The actuators for the Steam Generator (SG) Atmospheric Relief Valves (ARVs) AB PV0001, AB PV0002, AB PV0003 and AB PV0004 had their NUREG-0588 Appendix E Loss Of Coolant Accident (LOCA) and Main Steam Line Break (MSLB) categories changed from Category A (i.e., must function during and following a LOCA and MSLB) to Category C (i.e., may fail in any manner during or following a LOCA or MSLB).

Justification for this revision has been approved by the NRC in a letter dated February 25, 1988 from Paul O'Conner, NRC, to Bart Withers, Wolf Creek Nuclear Operating Corporation.

Safety Evaluation: The SG Atmospheric Relief Valves have Masoneilan No. 18 actuators for the purpose of controlled plant cooldowns. Based on an evaluation of the available information, it is concluded that a MSLB event with uncontrolled opening of ARVs caused by failure of the actuators and their appurtenances has no adverse impact on plant safety.

In addition, upon receipt of a Steam Line Isolation Signal following a LOCA, the ARVs and their actuators close. Failure of the actuators after a LOCA will not reopen the ARVs. However, even if the valves were to open, manual isolation is possible by closing valves AB V0007, AB V0018, AB V0029 and AB V0040, since the steam tunnel will be accessible following a LOCA.

For these reasons, by assigning a NUREG-, 88 Appendix E Category C for a MSLB and LOCA, and deleting the intenance contingencies on the ARVs' actuators, the probability of c_urrence and the consequences of an

accident or malfunction of equipment important to safety previously evaluated in the USAR will not be increased.

The possibility of an accident or a malfunction of equipment important to safety of a different type than previously evaluated will not be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03531 Revision: 0

Title: Turbine Driven Auxiliary Feedwater Pump Room Valve Access Flatform Addition

Description: This modification consists of installing a small valve access platform in the Turbine Driven Auxiliary Feedwater Pump Room. In order to obtain enough clearance for the platform, and to obtain adequate headroom, an existing conduit will be rerouted and an existing pressure indicator will be relocated. The new platform is designed seismic II/I, and therefore will not impact any safety-related equipment in a seismic event.

Safety Evaluation: No new loads, except the weight of the platform itself, which is insignificant, will be added to the floor. The rerouted conduit is safety-related and will be installed accordingly. The existing pressure indicator is a safety-related component and will be relocated and reinstalled in accordance with the same requirements as before. There is no impact from this change on the USAR with regard to procedures, tests or experiments. Therefore, there is no increase in the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined by the bases in any Technical Specification.

PLANT MODIFICATION REQUEST: 03544 Revision: 0

Title: West Construction Power Loop Feed

Description: This modification changes the current feed of the West Construction Power Loop from Breaker 13-2 (Bus SL-8) to the 13.8 kV Sectionalizer PS01. This will also require a change to USAR Figure 8.2-4.

Safety Evaluation: The Construction Power Loop does not perform any safety-related function. The subject bus is fed from the #4 transformer which has no direct or indirect ties to any safety-related equipment. This change has no impact on any previously evaluated accident or safety-related equipment malfunctions.

The Construction Power Loop and its associated switchgear do not physically or electrically interface with safety-related equipment. Therefore, there is no possibility that an accident or malfunction of equipment important to safety of a different type than any previously evaluated in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PLANT MODIFICATION REQUEST: 03556 Revision: 0

Title: Preparation And Shipment Of Waste Method Change

Description: This change defines dewatered wet waste as reasonably assured zerr free liquid and allows it to be accepted in addition to previously accepted complete solidification waste to be transported to the burial site.

This change also allows shipment of dewatered spent resins and filter sludges if acceptable by the receiving burial site. The type of container used may be dictated by the receiving burial site depending on activity level of the dewatered waste.

Safety Evaluation: This change affects the method for preparing waste for shipment and the design of portable solidification or dewatering systems. There is no change to the installed in-plant equipment. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR. There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined by the bases in any Technical Specification.

SECTION II

SAFETY EVALUATION: 89-SE-056 Revision: 1

Title: Essential Service Water System Chemical Treatment Program

Description: This temporary modification revision allows for the injection of a biocide and corrosion inhibitor into the Essential Service Water (ESW) train A supply line in the basement of the Contr. 1 Building at the 1 inch drain connection EF V106 instead of EF V103. The injection method will use metering pumps taking suction from a 55 gallon drum, and by way of stainless steel tubing, inject into the ESW line. This injection process is not reflected on USAR Figure 9.2-2; therefore, the temporary modification revision has introduced a change to the ESW System from its description in the USAR.

Safety Evaluation: The ESW drain line is seismic category I. In the unlikely event the tubing is severed, the calculated flow loss at the total developed head pressure of the (ESW) pump would be approximately 13 gpm. This amount of cooling water loss is insignificant upon system operation when compared to the required design flow of 13,563 gpm and current ESW pump flow test data.

The injection probe penetrates into the 30 inch main header. This probe is made of stainless steel and is approximately 3/8 inch outside diameter. It is highly unlikely for a portion of this stainless steel probe to break; but if it did, it would represent a small piece of debris in the open cycle ESW cooling circuit. This debris would remain on the bottom of the 30 inch supply header in the basement of the Control Building and would not be swept up in the flow to a higher elevation. This piece of debris would not be capable of causing any immediate or significant degradation to any safety related heat exchanger such that it would compromise its function because of the debris' small size and mass.

Heat exchanger tube failure has been evaluated and .ts probability of occurrence is not increased. The biocide chemicals and inhibitor placed in the basement of the Control Building, if spilled, would not introduce a hazardous chemical release. These chemicals pose no threat to the habitability of the Control Room.

Habitability of the Control Room is not compromised by an unlikely spill of the biccide and inhibitors because evaluation of these chemicals has shown them to be non-toxic. A berm is provided to contain any spills if they occur.

Assessment of the effects of this modification on the malfunction probability of the ESW System has concluded that there is no increase in the frequency of ES.' equipment malfunction occurrence. The reliability, capability, and interrity of the ESW System in providing cooling flow to the plant during accident conditions has not been degraded by the subject modification. This modification does not create a different type of accident or malfunction of equipment important to safety evaluated previously in the USAR. The capability and c wity to provide cooling to the plant's heat brads have not been degrees of impaired by the subject change.

The margin of safety as a loed by the Technical Specifications Bases is not reduced.

SAFETY EVALUATION: 90-SE-001 Revision: 0

Title: Gagging Shut Liquid Radwaete Relief Valve HB 7160

Description: This temporary modification allows for gagging shut Liquid Radwaste Relief Valve HB 7260. Relief valve HB 7160 is installed in the recirculation line of the Reactor Coolant Drain Tank (RCDT) downstream of the point where leakoffs and excess letdown enter the recirculation line. HB 7160 is to be gagged because of leak-by. While this relief "live is gagged, RCDT overpressurization protection is to be provided by HB 7169.

Safety Evaluation: The Liquid Radwaste System has no safety design basis except for its Containment isolation valves/piping and the component cooling water side of the RCDT heat exchanger. The effects of this modification on these functions are inconsequential. This modification does not compromise overpressurization protection of the RCDT nor the ability of the RCDT to process leakage flows, even though the pressure setpoint of HB 7169 is higher than HB 7160.

Both relief values HB 7160 and HB 7169 discharge to the Containment sump, therefore utilization of HB 7169 in lieu of HB 7160 does not increase the radiological consequences of relief value lift. The consequences of a Reactor Coolant Pump seal failure or Reactor Coolant System leakoff remain within previously analyzed bounds. Therefore, this modification will not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

System performance has not been significantly affected by this modification, nor has a new or limiting system variable been introduced. There is no possibility that an accident or malfunction of equipment important to safety may be created which is of a different type than any evaluated previously in the USAR.

There is no reduction in the margin of safety as defined by the bases of any Technical Specification.

SAFETY EVALUATION: 90-SF-002 Revision: 0

Title: Reactor Trip And Auxiliary Feedwater Actuation Signal Defeat

Description: This temporary modification allows for defeating the Reactor trip and auxiliary feedwater actuation signals during Mode 4, Hot Shutdown, through Mode 6, Refueling. The change is being made to emulate normal Steam Generator (S/G) levels on three out of the four channels of each loop so that the S/Gs can be placed in wet lay-up without initiating a feedwater isolation signal. This will be accomplished by placing a resistor at each instrument's input test jack in the 7300 process protection cabinets which will give the voltage value to emulate normal S/G levels. One instrument channel will not be changed in order to provide actual S/G level indication to the control room operators.

Safety Evaluation: This change is limited to plant Modes 4 through 6 since Reactor trip and auxiliary feedwater actuation signals are defeated. In Modes 4 through 6, this Engineered Safety Features Actuation Signal (ESFAS) function is not required since the Reactor is shut down and the plant is being maintained with an average temperature less than 350 degrees Fahrenheit. Feedwater requirements are minimal and not required for emergency needs in these plant modes. This temporary change shall not be implemented until the plant is in Mode 4, entering the refuel outage. This modification is required to be returned to normal operation prior to Mode 3, Hot Standby, entry following the refueling outage.

Flacing the resistor across the input test jack of the S/G level instruments in the process cabinets does not degrade the IE integrity of the cabinet or affect any other cabinet functions. The probability of occurrence and the consequences of an eccident or malfunction of equipment important to safety is not increased.

Defeating the action of the level instruments is the only effect of this modification. This will not create the possibility of an accident or malfunction of equipment important to safety of a different type than evaluated previously in the USAR.

The Technical Specifications require three minimum channels operable per S/G while in Modes 1, Power Operation, through 3, Hot Standby. Therefore, defeating the Reactor trip and auxiliary feedwater actuation signals during plant Modes 4 through 6 is not a reduction in the margin of safety since the safety feature does not have to be present by the Technical Specification.

SAFETY EVALUATION: 90-SE-003 Revision: 0

Title: Training Program Revision

Description: The subject USAR change addresses changes to the training program described in USAR Section 13.2. The changes made to the USAR text in this section are of the following nature: editorial changes, changes to reflect 10 CFR 55.59 and USNRC NUREG-1021, changes to the schedule for some general topics training courses, and changes to incorporate INPO 88-001 "Maintaining the Accreditation of Training in the Nuclear Power Industry".

The changes to the USAR text material in section 13.2 in the area of licensed operator requalification, evaluation and training are being made to clarify and make the USAR consistent with 10 GFR 55.59 and NUREG-1021, "Operator Licensing Examiner Standards". The change from 82 to 84 credit hours for academic qualification for a senior operator-STA candidate is being made to match Kansas State University's degree requirements.

The changes to the non-licensed plant staff training section are to delete the annual refresher training commitment for ALARA training and to "ecify no time interval for this refresher course. The annual coma at for ALARA refresher training was made by the licensee and was not mentioned as an annual retraining topic in the Safety Evaluation Report (SER) from the USNRC upon which the license is based. The deletion of the wording, 'If warranted, annual" from the refresher training course on codes and regulations is considered editorial. ALARA codes and regulations retraining are still part of the refresher training listed in the USAR but will be conducted as dictated by the training department.

The last area of change occurs in the supervisory review for training effectiveness section which was revised to incorporate the guidance given in INPO 88-001. "Maintaining the Accreditation of Training in the Nuclear Power Industry".

Safety Evaluation: These changes do not effect plant equipment or safety barriers either physical or operational. These changes ieflect the regulatory and nuclear industry's policy and guidance in the area of nuclear industry training programs to produce well-qualified and competent personnel. These changes do not increase accident and malfunction probability or consequences, nor is a different type of accident or malfunction than previously evaluated in the USAR created.

The functional requirements of the onsite and offsite organizations and the qualification requirements of the unit staff as specified by the Technical Specifications are maintained with no reduction in the margin of safety introduced.

SAFETY EVALUATION: 90-SE-004 Revision: 0

Title: Portable Water Treatment Trailer Temporary Connection

Description: This temporary modification allows temporary portable water treatment equipment to be utilized to provide demineralized water while the Demineralized Water Makeup System (DWMS) is out of service. The temporary equipment is tied into the DWMS in the Shop Building east of the Turbine Building. The Demineralized Water Storage and Transfer System (DWSTS) stores water for use upon demand for makeup within the plant. The DWSTS receives filtered and demineralized water from the DWMS. This modification introduces a change in the USAR description of the DWMS as described in USAR figure 9.2-5. The temporary water treatment (quipment has the capability to adequately treat the raw water of the DWMS in meeting chemical specifications for demineralized water as given in USAR table 9.2-16.

Safety Evaluation: The DWMS is not IE qualified or powered, serves no safety function and contains no equipment important to safety. All previously evaluated accidents evaluated in the USAR to not take any credit for operability of the DWMS, therefore this modification does not impact any USAR evaluated accidents. Previously evaluated malfunctions of equipment important to safety in the USAR also remain unaffected.

The DWSTS is located in the Shop Building outside of the power block. The quality of demineralized water has not been affected by the subject change and the cleanliness requirements of plant systems which use demineralized water will be retained. Therefore, accidents and malfunctions of a different type than previously evaluated in the USAR are not created.

There is no reduction in the margin of safety as defined by the bases of any Technical Specification.

SAFETY EVALUATION: 90-SE-005 90-SE-006 Revision: 0

Title: Temporary Procedures For Essential Service Water System Flow Balance

Description: These temporary procedures are for the post Loss Of Coolant Accident (LOCA) flow balances for the Essential Service Water System Trains A and B. The emergency makeup to the Auxiliary Feedwater, Spent Fuel Pool, and Componen: Cooling Water Systems will be simulated by providing a flow of 1270 gpm through the suction piping to the Turbine Driven Auxiliary Feedwater Pump. This flow path will be established by removing the pump suction strainer spool piece and installing a temporary adapter bolted to the piping flange with temporary 8 inch piping routed outside the building to the storm drains.

These tests will only be performed in plant Modes 5, Cold Hhutdown, and 6, Refueling. The Turbine Driven Auxiliary Feedwater Pump is not required to be operable in these modes. The temporary piping will be installed with temporary supports at a maximum of a 19 foot spacing to support dead weight. The piping will be suitably blocked/braced to prevent pipe movement due to thrust forces. For the train A and train B flow balance, flow will be initiated using the manual isolation valve AL VOLL and AL VOL4, respective'y, to prevent water hammer.

Safety Evaluation: The temporary piping will be installed with sufficient supports and braces to ensure that no strain is placed on the permanent piping or supports. The permanent piping will be restored prior to the plant re-entering Mode 3, Hot Standby. The installation of temporary piping at the suction to the Turbine Driven Auxiliary Feedwater Pump will not affect the initiators of previously evaluated accidents or malfunctions of equipment important to safety found in the USAR. The consequences of these accidents and malfunctions will not be increased.

There are no unique or different challenges to equipment important to safety created. This change will be made only while 'n Mode 4, Hot Shutdown, or below and will only affect (peration of the Turbine Driven Auxiliary Feedwater Pump; therefore, there will not be iny possibility of an accident of a different type than previously evaluated occurring.

There is no reduction in the margin of safety as defined by the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-007 Revision: 0

Title: Combustible Materials Permit (No. 90-11)

Description: This permit allows for a combustible materials fire load of 80,000 British thermal units (BTU) per square foot to be stored in the Hot Machine Shop (HMS). The HMS combustible loading as described in the USAR for fire area HMS-1 reflects a loading of approximately 5,530 BTU per square foot for this area. This permit allows a change to the facility from its description in the USAR in that it will allow up to 80,000 BTU per square foot to be stored in this area.

Safety Evaluation: Fire load is a measure of the maximum heat that would be released if all the combustibles in a given fire area burned. A 3 hour barrier provides fire resistance equivalent to the complete burn of a combustible material load of 240,000 BTU per square foot per the National Fire Protection Agency (NFPA) Code Table F-9B.

Allowing 80,000 BTJ per square foot to be stored in the HMS provides adequate margin against fire breach and does not seriously challenge the 3 hour barrier between the HMS and Auxiliary Building. A fire of 80,000 BTU per square foot severity in the HMS does not compromise the fire barrier.

It is unlikely that this fire would consume the allowed combustible material load without detection or fire suppression actions being taken, but if it did, no increase in fire consequences would result. The consequences of a HMS-1 area fire have not been increased by allowing the combustible material load to be increased to 80,000 BTU per square foot because fire spread into the Auxiliary Building has not been created. The additional combustible materials loading in this area does not affect any other USAR evaluated accidents or malfunctions of safety related equipment.

The fact that more combustibles are being stored than shown in the USAR for the HMS does not add equipment, remove equipment, or change the operation or configuration of equipment important to safety. Therefore it does not create the possibility of a different type of accident or malfunction.

There is no reduction in the margin of safety as defined by the bases of any Technical Specification.

SAFETY EVALUATION: 90-SE-008 Regision: 0

Title: Personnel Access Cover Procedure Change

Description: The subject procedure change provides controls when lifting personnel covers to the Diesel Fuel Oil Storage Tanks, Essential Service Water (ESW) Valve House and ESW Electrical Manholes when the enclosure's equipment is operable. The USAR clearly describes these enclosures as accessible but does not specify any controls on lifting the access covers.

Safety Evaluation: Removing personn 1 access covers under the cognizance of the Control Room, who will moni or weather conditions during cover removal and require cover replacement when adverse weather conditions develop, does not jeopardize the operability of the enclosure's equipment. The compensatory measures specified in the procedure change require the capability to restor the cover if tornado threatening conditions develop. If in the highly unlikely event the cover cannot be restored during adverse weather, the enclosure's equipment can be declared inoperable and the proper compensatory actions taken. The
procedure change provides adequate controls to support maintenance activities in these enclosures.

The outside diameter of each personnel access is significantly larger than its respective opening inside diameter. Therefore, cover drop failure into the enclosure is not possible, i.e., no II/I condition is created. No safety-related components are located directly below the access opening. The subject procedure change controls the lifting of the personnel access covers to allow entries into the enclosures without any increase in the enclosure's accident and equipment malfunction probability or consequences thereof.

There is not a possibility that an accident or malfunction of a different type than previously evaluated in the USAR may be created.

No margin of safety as defined in the bases for any Technical Specification is reduced.

SAFETY EVALUATION: 90-SE-009 Revision: 0

Title: Alternate Water Source For Motor Cooling And Gland Seal

Description: The subject procedure gives instructions to provide an alternate source of motor cooling and gland seal water, supplied from the Potable Water System, to the circulating water pumps when the Service Water System is out of service.

Safety Evaluation: The interconnect between the circulating water pump motor and gland seal piping to the potable water source is from nonsafety related to non-safety related systems. The circulating water pumps and the Potable Water System are not seismic category 1 and serve no safety functions. The procedure does not increase the probability of occurrence and the consequences of an accident or a malfunction of equipment important to safety because this equipment is not actuated, actuated more frequently, or when actuated, altered by the procedure.

The piping change does not affect the seismicity, environmental qualifications, or reliability is any equipment important to safety because it is isolated from this equipment. Therefore, there is no possibility that an accident or malfunction of equipment important to safety of a different type than any previously evaluated in the USAR may be created.

There is no reduction in the margin of safety as defined by the bases of any Technical Specification.

SAFETY EVALUATION: 90-SE-010 Revision: 0

Title: Alternate Pneumstic Energy Source From Nitrogen Bottle

Description: The subject modification provides an additional source of pneumatic energy as a back up to the normal instrument air flow control valves located at the outlet of each Residual Heat Removal (RHR) heat exchanger. The source is provided from nitrogen bottles.

Safety Evaluation: The modification does not affect the seismicity of the values. The failure mode of the values has not been altered even if the operation of the back up nitrogen bottle fails. The modification does not alter the function of the control values. The nitrogen bottles will be secured to prevent movement, therefore no seismic or missile hazards have been introduced.

With the modification limited to providing back up pneumatic energy to the RHR control valves, the potentia? to affect the occurrence frequency of previously evaluated accidents is not changed because no variables associated with their occurrence is affected. The RHR equipment malfunction probability or consequences thereof has not been increased by the modification because equipment functions are not altered, equipment actuation frequency is not changed nor is equipment qualification degraded.

This modification provides additional defense in-depth capability in the event RHR is lost and does not possess the potential to create a different type of accident.

Technical Specification Bases ensure decay heat removal is provided with sufficient flow by the RHR System. These bases are maintained by this modification and no margin of eafety is reduced.

SAFETY EVALUATION: 90-SE-011 Revision: 0

Title: Fuel Transfer Canal Draining Temporary Procedure

Description: The subject temporary procedure provides the means to drain the Fuel Transfer Canal (FTC) by using a temporary pump and hose taking suction out of the FTC and routing it back to the Recycle Holdup Tank (RHUT) by way of the Spent Fuel Pool Cooling and Cleanup System (SFPCCS) and Boron Recycle System (BRS) piping. The temporary pump is connected via a hose to the 3 inch flange connection at the top of the FTC. The flanged connection point is off the non-seismic line provided by design to borate the FTC/SFP from the BRS recycle evaporator feed pumps. The procedure alignment uses the BRS piping which is designed to handle borated and radioactive water. The procedure does not have the potential to over-pressurize the piping or RHUTs because the RHUTs have an overflow line. No fuel assembly is in the FTC at the time of draining it. The potential to drain the SFP is not created by the procedure because the temporary pump does not take suction from the SFP.

Safety Evaluation: The equipment important to safety to cool the spent fuel assemblies in the SFP is not affected by the procedure actions because none of this equipment is utilized or adversely affected. The probability of creating a fuel handling accident has not been increased because the procedure does not introduce a load over the SFP or move any fuel assemblies.

The possibility of an accident or a malfunction not previously evaluated is not created because the procedure does not actuate, increase the actuation of or, if actuated, alter the function of the subject equipment.

The restrictions on minimum water level of 23 feet above the fuel assemblies in the SFP to ensure that sufficient water depth is available to remove iodine gap activity released during a rupture of an irradiated fuel assembly is retained by the procedure because it does not drain or have the potential to drain the SFP. The margin of safety as reflected in the Technical Specification Bases is not reduced.

SAFETY EVALUATION: 90-SE-012 Revision: 0

Title: Motor Operated Valve Testing

Description: This new procedure contains tests that are not discussed in the USAR. The purpose of the test is to establish plant conditions that most closely approximate design conditions for the Motor Operated Valves (MOV) being tested. The systems affected by this test either remain operable during the test or are not required to be operable in the mode that the test is performed. The MOV cycling is done with the system filled and vented to ensure no water hammer occurs. The MOV torque switch, limit switch, and motor protective devices will protect the valve if the differential pressure or flow across the valve is too high.

Safety Evaluation: The test does involve draining from the Refueling Water Storage Tank, but the amount drained is insignificant and the process is controlled and monitored. Also, the test does not allow dilution of any borated system and maintains Containment integrity.

The radiological barriers and the initiators of the previously evaluated accidents are not affected. Therefore, the probability of occurrence

and the consequences of an accident have not been increased. Operability of equipment and failure mode of the valve are unaffected. Therefore, the probability of occurrence and the consequences of any malfunction of equipment (mportant to safety is not increased.

There is no new challenge to the equipment that would cause any accident or malfunction of equipment important to safety different from any evaluated previously in the USAR.

No margin of safety as defined in the bases for any Technical Specification is reduced as a result of this procedure.

SAFETY EVALUATION: 90-SE-013 Revision: 0

Title: Maintaining Fire Protection System Pressure From Essential Service Water

Description: This procedure will provide a means for maintaining Fire Protection System header pressure by use of the Essential Service Water (ESW) System when the Service Water (SW) System is out-of-service. The jockey fire pump will be inoperable when the SW System is out-ofservice. Maintaining Fire Protection System header pressure will be accomplished by connecting a hose between a 1 inch drain valve on the Fire Protection Header and a 1 inch drain valve on the in-service ESW train in the ESW Piping Room. This procedure will only be performed in Modes 5, Cold Shutdown, and 6, Refueling.

Safety Evaluation: The Fire Protection Manual requires that the Fire Protection System be maintained operable at all times. This procedure will not adversely affect the operation of the Fire Protection System.

The installation of a hose to connect a Fire Protection System drain valve to an ESW System drain valve will not affect the initiators nor increase the consequences of any previously evaluated accident. Equipment important to safety has not been subject to an increase in the probability of occurrence or the consequences of a malfunction since the procedure will only be performed in Modes 5 and 6 when the ESW System has a reduced system load and the Fire Protection System Header is not impaired.

There are no unique or different challenges to equipment important to safety created by this procedure. There is no possibility that an accident or malfunction of equipment important to safety of a different type than evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-014 Revision: 0

Title: Temporary Shielding Loop 2 Safety Injection Discharge Check Valve

Description: Temporary lead shielding was required to radiologically protect personnel near Loop 2 Safety Injection Discharge Check Valve BB 8949B. An evaluation was performed for the use of up to four lead blankets with a total weight of 152 pounds on the valve and the adjacent

In order to maintain pressure boundary integrity in a seismic event, the evaluation stipulated that: Support M06EM63-H003 will remain in place per design; shielding shall not be installed until Mode 5, Cold shutdown, is entered and the Reactor Coolant System is depressurized; and each layer of shielding shall be independently wired and strapped in place.

Safety Evaluation: The pressure boundary and the seismic rating of the system is maintained. The probability of occurrence or the consequences of an accident previously evaluated in the USAR is not increased. Adding the weight to the outside of this check valve will not affect its ability to function as designed, therefore there is no increase in the equipment important to safety that has been previously evaluated in the USAR.

Since there are no new functional or seismic impacts imposed by the lead shielding, the possibility of an accident or malfunction of a different type is not created.

There is no reduction in the margin of safety as defined by the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-015 Revision: 0

Title: Refuel IV Temporary Gaitronics

Description: A Gaitronics Communication Station is being added to provide a means of communication during Refuel IV directly inside the personnel hatch in Containment. The added station is being wired into an existing Gaitronics terminal box.

Safety Evaluation: The additional communications equipment is supplied and procured for Gaitronics use. The added communications equipment retain Gaitronics design and does not degrade system performance. Each station is powered with its own 120V power supply, and adding the additional communications equipment does not affect system operation.

There is no safety design basis for the Communication System. All accident and malfunction consequences and probabilities have not been increased from their previous evaluations since no credit has been taken for the existence of the Gaitronics System within these previous evaluations.

The designed function of the Gaitronics System is maintained by this temporary modification. The cable that connects the added amp to the junction box does not degrade the seismic integrity of any seismically qualified component. Therefore, there is no possibility of a new type of accident or malfunction being created.

There is no reduction in the margin of safety as defined by the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-016 Revision: 0

Title: Temporary Procedure For Boric Acid Concentrate Transfer

Description: This temporary procedure provides the means to transfer barstal water in the Secondary Liquid Meste Monitor Tank (SLWMT) to the Recycle Holdup Tank (RHUT). The temporary procedure uses a hose connected off of the 3/4 inch flush connection on the discharge of the SLWMT pump's discharge line. The other end of the hose is connected to a 1 inch drain connection on the tie-in header to the Boron Recycle System (BRS). The hose will meet design requirements. The hose provides an adequate means to support the transfer; this conclusion is based on engineering judgement. The transfer process will be monitored by operators in the Radwaste Building.

Safety Evaluation: The consequences of a RHUT (maximum total inventory) and Primary Evaporator Bottom Tank (maximum iodine inventory) release due to tank failure has been evaluated in the USAR (releases not concurrent). The radiological consequences evaluated for these accidents which assumes no iodine removal by the Radwaste Building Heating, Ventilation and Air Conditioning charcoal adsorbers are more severe than any possible consequences resulting from transferring the borated water from the SLWMT to the RHUT via a temporary hose. The consequences of these accidents bound any accident consequences which may result from using the subject procedure.

Overpressurization of the RHUT is not possible because these tanks have a loop seal overflow line. The Radwaste Building contains no equipment important to safety, therefore the malfunction probability or consequences thereof of this equipment is not increased. The hose is not routed outside of the Radwaste drainage field, therefore a new or different potential release path to the environment is not created by the hose routing. Previously evaluated accidents in the USAR encompass all possible accidents which may be created from a hose break and subsequent drainage of the SLWMT or RHUT to the Radwaste Drain Field. The possibility of a different type of malfunction of equipment is also not created.

Technical Specification margins addressing liquid effluents and ALARA considerations are all maintained by the procedure and no reduction in the margin of safety as defined by the bases for any Technical Specification results.

SAFETY EVALUATION: 90-SE-017 90-SE-019 Revision: 0

Title: Temporary Shielding Residual Heat Removal Suction Isolation Valves

Description: Tempotary lead shielding was required to radiologically protect personnel near Residual Heat Removal Suction Isolation Valves BB PV8702A&B. An evaluation was performed for the use of up to four lead blankets with a total weight of 152 pounds on each valve and adjacent piping.

In order to maintain pressure boundary integrity in a seismic event, the evaluation stipulated that adjacent supports shall remain fully operational and shielding shall not be applied until the plant has entered Mode 5, Cold Shutdown.

Safety Evaluation: The pressure boundary and the seismic rating of the system is maintained. The probability of occurrence or the consequences of an accident previously evaluated in the USAR is not increased. Adding the weight to the outside of these valves will not affect their ability to function as designed, therefore there is no increase in the probability of occurrence or the consequences of a malfunction of equipment important to safety that has been previously evaluated in the USAR.

Since there are no new functional or seismic impacts imposed by the lead shielding, the possibility of an accident or malfunction of a different type is not created.

There is no reduction in the margin of safety as defined by the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-018 Revision: 0

Title: Temporary Shielding Letdown Regenerative Heat Exchanger Delay Pipe

Description: Temporary lead shielding was required to radiologically protect personnel near Letdown Regenerative Heat Exchanger Delay Pipe Line BG-442-BCB-12. An evaluation was performed for use of four lead blankets with a total weight of 304 pounds.

In order to maintain pressure boundary integrity in a seismic event, the evaluation stipulated that: The temporary shielding would only be installed in Modes 5. Cold Shutdown, and 6. Refueling; the shielding will be supported by attaching it to the wide flange members of hanger BG22-H004 by use of chain/rope, hooks, and/or nuts and bolts; and the shielding will not rest on or be supported by any other components, piping or supports other than specifically identified above.

Safety Evaluation: The pressure boundary and the seismic rating of the system is maintained. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR is not increased.

Since there are no new functional or seismic impacts imposed by the lead shielding, the possibility of an accident or malfunction of a different type is not created.

There is no reduction in the margin of safety as defined by the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-020 Revision: 0

Title: Temporary Shielding Loop 4 Safety Injection Discharge Check Valve

Description: Temporary lead shielding was required to radiologically protect personnel near Loop 4 Safety Injection Discharge Check Valve BB-8949D. An evaluation was performed for the use of up to seven lead blankets with a total weight of 266 pounds on the valve and adjacent piping.

In order to maintain pressure boundary integrity in a seismic event, the evaluation stipulated that: Supports M06EM05-R002 and M06EM05-R001 will remain in place per design; shielding shall not be installed until Mode 5. Cold Shutdown, is entered and the Reactor Coolant System is depressurized; and each layer of shielding shall be independently wired and strapped in place.

Safety Evaluation: The pressure boundary and the seismic rating of the system is maintained. The probability of occurrence or the consequences of an accident previously evaluated in the USAR is not increased. Adding the weight to the outside of this check valve will not affect their ability to function as designed, therefore there is no increase in the probability of occurrence or the consequences of a malfunction of equipment important to safety that has been previously evaluated in the USAR.

Since there are no new functional or seismic impacts imposed by the lead shielding, the possibility of an accident or malfunction of a different type is not created.

There is no reduction in the margin of safety as defined by the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-021 Revision: 0

Title: Temporary Shielding Chemical Volume Control System Letdown Isolation Valves

Description: Temporary lead shielding was required to radiologically protect personnel near Chemical Volume Control System Letdown Isolation Valves BG LCV459 and BG LCV460. An evaluation was performed for the use of three lead blankets per valve with a total weight of 114 pounds per valve.

In order to maintain valve operability and pressure boundary integrity in a seismic event, the evaluation stipulated that: The temporary shielding will only be installed in Modes 5. Cold Shutdown, and 6, Refueling; the shielding will be attached directly to the valves in such a manner as to ensure valve operability is not impaired; and pipe supports BG H009, H010, H011, R017, R018, R020 and R021 must be operable or suitable replacement supports must be installed.

Safety Evaluation: The pressure boundary and the seismic rating of the system is maintained. The probability of occurrence or the consequences of an accident previously evaluated in the USAR is not increased. Adding the weight to the outside of these valves will not affect its ability to function as designed, therefore there is no increase in the probability of occurrence or the consequences of a malfunction of equipment important to safety that has been previously evaluated in the USAR.

Since there are no new functional or seismic impacts imposed by the lead shielding, the possibility of an accident or malfunction of a different type is not created.

There is no reduction in the margin of safety as defined by the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-022 Revision: 0

Title: Temporary Procedure Change Hot Standby To Cold Shutdown

Description: The Centrifugal Charging Pumps (CCPs) and Positive Displacement Pump (PDP) are all capable of providing charging and seal injection flow. The subject temporary procedure change, which will be used when the plant is in Mode 5, Cold Shutdown, provides system alignment conditions to load a CCP on its clesel Generator in the recirculation mode, have the other CCP in pull-to-lock and have the PDP in operation providing seal injection.

Safety Evaluation: This alignment configuration was thought to introduce a change that could affect nuclear safety in a way not previously evaluated. This conclusion stemmed from cold overpressure protection concerns because the cold overpressure protection analysis only considered a CCP challenging the Reactor Coolant System (RCS) pressure retaining components. The potential to pressurize the RCS from a CCP and PDP concurrently is not possible by the procedure configuration because the idle CCP is in pull-to-lock, preventing it from automatically starting. There are no automatic starting signals for a CCP in Mode 5. The other CCP is isolated from injecting into the RCS; therefore, it also lacks the ability to pressurize the RCS. The PDP which is operating cannot overpressurize the RCS because the cold overpressure protection provided by design can mitigate the consequence of a CCF pressurization event, which is more severe than a PDP The probability of occurrence and the pressurization event. consequences of a previously evaluated accident has not been increased.

This change does not affect the way the CCPs and the PDP are operated or introduce any changes to operating conditions which would increase the probability of occurrence or the consequences of a malfunction of equipment important to safety.

This change does not affect the way the CCPs and the PDP are operated or introduce any changes to operating conditions which could create a different type of accident or malfunction of equipment important, to safety.

procedure since it allows injection from only one of the charging pumps (CCP or PDP). There is no reduction in the margin of safety as defined by the bases for any Technical Specif'cation.

SAFETY EVALUATION: 90-SE-023 Revision: 0, 1

Title: Operator Gaitronics Addition

Description: These modifications involve the addition of Gaitronics Communication Stations during Refuel IV. An additional handset/deskset will be added at the Supervising Operator desk in the Control Room. An additional refueling channel headset will also be provided in the Control Room for additional communications between Reactor Engineering and the Control Room operators during refueling procedures. Also, a station near the refueling pool in Containment will be wired into an existing Gaitronics terminal box.

Safety Evaluation: The additional communications equipment is supplied and procured for Gaitronics use. The added communications equipment retain Gaitronics design and does not degrade system performance. Each station is powered with its own 120V power supply, and adding the additional communications equipment does not affect system operation.

There is no safety design basis for the Communication System. Therefore, there is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

The seismic integrity of any seismically qualified component is not degraded by the modification actions. There is no possibility that a class IE system can be affected. Therefore, there is no possibility that an accident or malfunction of equipment important to safety different than any previously evaluated in the USAR may be created.

There is no reduction of the margin of safety as defined in the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-024 Revision: 0

Title: Temporary Shielding Reactor Coolant System Check Valves

Description: Temporary lead shielding was required to radiologically protect personnel near Chemical Volume Control System Charging to

Reactor Coolant System Check Valves BB V8378A and BB V8378B. An evaluation was performed for the use of one lead blanket per valve with a total weight of 38 pounds per valve.

In order to maintain valve operability and pressure boundary integrity in a seismic event, the evaluation stipulated that the temporary shielding will only be installed in Modes 5. Cold Shutdown and 6. Refueling and that the shielding will be wrapped around the valves and piping and securely fastened with wire.

Safety Evaluation: The pressure boundary and the seismic rating of the system is maintained. The probability of occurrence or the consequences of an accident previously evaluated in the USAR is not increased. Adding the weight to the outside of these check valves will not affect their ability to function as designed, therefore there is no increase in the probability of occurrence or the consequences of a malfunction of equipment important to safety that has been previously evaluated in the USAR.

Since there are no new functional or seismic impacts imposed by the lead shielding, the possibility of an accident or malfunction of a different type is not created.

There is no reduction in the margin of safety as defined by the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-025 Revision: 0

Title: Temporary Shielding Reactor Coolant System Check Valves

Description: Temporary lead shielding was required to radiologically protect personnel near Chemical Volume Control System Charging to Reactor Coolant System Check Valves BB V8379A and BB V8379B. An evaluation was performed for the use of one lead blanket per valve with a total weight of 38 pounds per valve.

In order to maintain valve operability and pressure boundary integrity in a seismic event, the evaluation stipulated that the temporary shielding will only be installed in Modes 5, Cold Shutdown and 6, Refueling and that the shielding will be wrapped around the valves and piping and securely fastened with wire.

Safety Evaluation: The prestive boundary and the seismic rating of the system is maintained. The pubbility of occurrence or the consequences of an accident previously evaluated in the USAR is not increased. Adding the weight to the outside of these check values will not affect their ability to function as designed, therefore there is no increase in the probability of occurrence or the consequences of a malfunction of equipment important to safety that has been previously evaluated in the USAR.

Since there are no new functional or seismic impacts imposed by the lead shielding, the possibility of an accident or malfunction of a different type is not created.

There is no reduction in the margin of safety as defined by the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-026 Revision: 0

Title: Temporary Shielding Residual Heat Removal Recirculation Check Valve

Description: Temporary shielding was required to radiologically protect personnel near Safety Injection/Residual Heat Removal Recirculation Check Valve BB V8949C. An evaluation was performed for the use of two lead blankets with a total weight of 76 pounds.

In order to maintain valve operability and pressure boundary integrity in a seismic event, the evaluation stipulated that he temporary shielding will only be installed in Modes 5, Cold Shutdown and 6, Refueling and that the shielding will be wrapped around the valve and piping and securely fastened with wire.

Safety Evaluation: The pressure boundary and the seismic rating of the system is maintained. The probability of occurrence or the consequences of an accident previously evaluated in the USAR is not increased. Adding the weight to the outside of this check valve will not affect its ability to function as designed, therefore there is no increase in the probability of occurrence or the consequences of a malfunction of equipment important to safety that has been previously evaluated in the USAR.

Since there are no new functional or seismic impacts imposed by the lead shielding, the possibility of an accident or malfunction of a different type is not created.

There is no reduction in the margin of safety as defined by the bases for any Technical Specification. SAFETY EVALUATION: 90-SE-027 Revision: C

Title: Temporary Shielding Residual Heat Removal Recirculation Check Valve

Description: Temporary shielding was required to radiologically protect personnel near Residual Heat Removal Recirculation Check Valve BB V8949B. An evaluation was performed for the use of two lead blankets with a total weight of 152 pounds.

In order to maintain valve operability and pressure boundary integrity in a seismic event, the evaluation stipulated that the temporary shielding will only be installed in Modes 5. Cold Shutdown, and 6, Refueling, and that the shielding will be wrapped around the valve and piping and securely fastened with wire.

Safety Evaluation: The pressure boundary and the seismic rating of the system is maintained. The probability of occurrence or the consequences of an accident previously evaluated in the USAR is not increased. Adding the weight to the outside of this check valve will not affect its ability to function as designed, therefore there is no increase in the probability of occurrence or the consequences of a malfunction of equipment important to safety that has been previously evaluated in the USAR.

Since there are no new functional or seismic impacts imposed by the shielding, the possibility of an accident or malfunction of a different type is not created.

There is no reduction in the margin of safety as defined by the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-028 Revision: 0

Title: Temporary Shielding Safety Injection System Boron Injection Tank Check Valves

Description: Temporary lead shielding was required to radiologically protect personnel near Safety Injection System Boron Injection Tank Check Valves BB V001 and BB V022. An evaluation was performed for the use of one lead blanket per valve with a total weight of 38 pounds per valve.

In order to maintain value operability and pressure boundary integrity in a seismic event, the evaluation stipulated that the temporary shielding will only be installed in Modes 5, Cold Shutdown and 6,

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Refueling and that the shielding will be wrapped around the valve and piping and securely fastened with wire.

Safety Evaluation: The pressure boundary and the seismic rating of the system is maintained. The probability of occurrence or the consequences of an accident previously evaluated in the USAR is not increased. Adding the weight to the outside of these check values will not affect their ability to function as designed, therefore there is no increase in the probability of occurrence or the consequences of a malfunction of equipment important to safety that has been previously evaluated in the USAR.

Since there are no new functional or seismic impacts imposed by the lead shielding, the possibility of an accident or malfunction of a different type is not created.

There is no reduction in the margin of safety as defined by the basy for any Technical Specification.

SAFETY EVALUATION: 90-SE-029 Revision: 0

Title: Alternate Cooling To Compressed Air System

Description: This temporary modification provides cooling to Compressed Air System Air Compressor CKAOLC from either the A or B train of the Essential Service Water (ESW) System during the Refuel IV outage. CKAOLC is normally cooled with Service Water, but since Service Water was taken out of service for outage work, the compressor could not be used without supplying an alternate cooling water source.

This temporary modification ran a temporary hose from KA V406 (ESW B supply to CKAOLE Drain Valve) to KA V256 (Service Water to CKAOLC Drain valve) and included provisions to provide Alternate cooling to CKAOLC from KA V410 (ESW A to CKAOLA Drain Valve) to KA V256 when ESW B train was out of service. During the time that cooling water was supplied to CKAOLC, valve KA V255 (Service Water from CKACLC Drain Valve) was open to allow a flow path for the cooling water to a Turbine Building flow drain and valve EA V034 was closed to isolate the rest of the Service Water System from this flow.

Safety Evaluation: The portion of the Compressed Air System (CAS) with a safety related function was not compromised. The safety related brokup compressed gas (nitrogen) supply for the Auxiliary Feedwater Control and Main Steam System atmospheric relief valves remained unaffected. Additionally, the reliable backup supply of compressed gas for the main feedwater control valves was not affected.

The temporary installation of the hose does not present any II/I concerns since the hose is run inside the Turbine Building and connected to non-seismic connections.

The Turbine Building condenser pit flood probability of occurrence was not increased since the drainage capacity of the Turbine Building sumps and drainage system was not compromised in the manner previously evaluated by a Dirculating Water System rupture in the USAR. Pressure integrity of the compressor cooling piping was retained since the hose employed had 150# rating or better.

Containment isolation valves, upon loss of air, still fail in their safe position. Functional integrity of the eighty hour backup supply of compressed gas in the accumulators was not affected.

Therefore there was no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

The changes did not create the possibility of an accident or malfunction of equipment important to safety of a type different than any previously evaluated in the USAR.

Site boundaries were maintained, Containment isolation valves remained operable, and margins of safety as defined in the bases for any Technical Specification were not reduced.

SAFETY EVALUATION: 90-SE-030 Revision: 0

Title: Supervisory Review Procedure Change

Description: The subject procedure change changes the annual Supervisory Review of the training program's effectiveness to a biennial review. This effectiveness review is part of the program review for non-licensed plant staff training.

Safety Evaluation: There is no physical modification made to any plant equipment. There is no effect on any accidents or malfunctions of equipment important to safety previously evaluated in the USAR nor is any margin of safety defined by the Technical Specification Bases reduced.

SAFETY EVALUATION: 90-SE-031 Revision: 0

Title: Circulating Water System Fill Using Circulating Water Pump 1C

Description: Normally, the Circulating Water System is filled using the acid dilution flow path from the Service Water System. This temporary procedure provides a means for filling the Circulating Water System when the Service Water System is not in operation. It utilizes the 1C Circulating Water Pump to fill the system by manual throttling of the discharge valve. The 1C Discharge Valve, 1CW001C, is electrically disabled during the fill process; however, an operator is stationed to close the valve in the event of unexpected pressure transients or flooding.

Safety Evaluation: The use of the 1C Circulating Water Pump for filling of the Circulating Water System does not affect the operation of any equipment important to safety. There is no increase in the probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the USAR.

This temporary procedure causes no challenges to equipment important to safety and therefore does not create the possibility for the occurrence of an accident or malfunction different than any previously evaluated in the USAR.

There is no reduction in the margin of safety as defined by the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-032 Revision: 0

Title: Temporary Shielding Reactor Coolant System Loop A Hot Leg

Description: Temporary lead shielding was required to radiologically protect personnel near Reactor Coolant System Loop A Hot Leg Resistance Temperature Detector Piping Lines BB-13-BCA-2 and BB-14-BCA-2. An evaluation was performed for the use of four lead blankets with a total weight of 152 pounds.

In order to maintain pressure boundary integrity during a seismic event, the evaluation stipulated that: The temporary shielding will only be installed in Modes 5, Cold Shutdown, and 6, Refueling; the shielding will be installed on the insulation box covering the piping, one shielding blanket in talled on top and three shielding blankets installed on the insulation box. Safety Evaluation: The pressure boundary and the seismic rating of the system are maintained. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR is not increased.

Since there are no new functional or seismic impacts imposed by the lead shielding, the possibility of an accident or malfunction of a different type is not created.

There is no reduction in the margin of safety as defined by the bases for any Technical Specification.

SAFE"" EVALUATION: 90-SE-033 Revision: 0

Title: Temporary Shielding Reactor Coolant System Loop C Hot Leg

Description: Temporary lead shielding was required to radiologically protect personnel near Reactor Coolant System Loop C Hot Leg Resistance Temperature Detector Piping Lines BB-47-BCA-2 and BB-48-BCA-2. An evaluation was performed for the use of four lead blankets with a total weight of 152 pounds.

In order to maintain pressure boundary integrity during a seismic event, the evaluation stipulated chat: The temporary shielding will only be installed in Modes 5. Cold Shutdown and 6. Refueling; the shielding will only be installed on the insulation box covering the piping, one shielding blanket installed on top and three shielding blankets installed on the insulation box.

Safety Evaluation: The pressure boundary and the seismic rating of the system are maintained. There is no increase in the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety that has been previously evaluated in the USAR.

Since there are no new functional or peismic impacts imposed by the lead shielding, the possibility of an accident or malfunction of a different type is not created.

There is no reduction in the margin of safety as defined by the bases for any Technical Specification. SAFETY EVALUATION: 90-SE-034 Revision: 0

Title: Service Water Return Isolation Valve Removal

Description: This temporary modification removes the Service Water Return to Circulating Water System Isolation Valves EA HV05 and EA HV06. Blind flanges will be installed on the downstream flanges to support operation of the Circulating Water System. The flanges will be located eighteen inches above the floor of the condensate pit where the Service Water piping goes underground to the into the circulating water discharge piping. Temporary supports for these disconnected sections of piping will not be required.

Safety Evaluation: Per USAR Table 3.6-1, this is a moderate energy piping system, which has been analyzed for flooding. The flood analysis for the Turbine Building postulates a complete rupture of a circulating water expansion joint as a worst case failure. In the unlikely event of failure of these blind flanges, the bounds of the flood analysis would not be exceeded. Additionally, the condenser pit flood protection level switches would be available to automatically stop the circulating water pumps and isolate their discharge valves if flooding did occur.

This temporary modification will not affect the operation of systems or components important to safety. Therefore, the probability of occurrence the consequences of an accident or a malfunction of equipment important to safety is not increased. Assessment of the valve removal and subsequent installation of blind flanges has concluded that the probability of an accident occurrence or the consequences produced has not increased.

The removal of the valves and subsequent installation of blind flanges causes no challenges to equipment important to safety. Therefore, there is no possibility of an accident or malfunction not previously evaluated in the USAR being created.

This temporary modification does not reduce any margin of safety as defined in the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-035 Revision: 0

Title: Temporary Class IE Power To "Immediate Borate To Charging Pump Valve"

Description: This temporary modification will provide class IE power to the Immediate Borate to Charging Pump Suction Valve BG HV8104. At the time, the plant was shutdown during Refuel IV. During Mode 5, Cold Shutdown, or 6, Refueling, one of two possible sources of borated water, either the Refueling Water Storage Tank (RWST) or Boric Acid Storage System (BASS), was required to be operable per Technical Specification 3.1.2.5.

Valve BG HV8104 is in the boration flow path between the BASS and the suction header of the charging pumps. This motor operated valve is a non-class IE load which is normally energized from class IE 480V Motor Control Center (MGC) NG04C. However, Train B class IE Electrical Bus NB02 was out of service causing NG04C to be de+energized.

The class IE power to BG HV8104 is provided through its IE breaker via a jumper between a space breaker in operable Train A 480V MCC NG03C and its breaker in MCC NG04C. The spare IE breaker between operable NG03C and the jumper cable and the valves normal IE breaker have the same frame size and continuous rating. The electrical jumper will not degrade IE integrity because the spare IE circuit breaker provides the same protection between it and the non-IE valve load, as did normal design.

Safety Evaluation: The jumper cable is routed between the Control Room air conditioning rooms on the 2047' level of the Auxiliary Building and does not introduce any II/I, separation group, or Control Koom pressurization concerns along this route.

The approximate 100 feet of cable does not introduce a significant voltage drop and the addition of 2.3 amps to the MCC's load does not over capacitate or degrade the operability of it to supply all of its loads. The Standby Emergency Diesel Generator, NEO1, power source will not be overloaded by the small load added to NG03C.

The jumper cable ensures the operability of the boration flow path by providing equivalent to design operability of valve BG HV8104. The Diesel Generator (one required in Modes 5 or 6) remains available and is not affected by the temporary jumper to power valve BG HV8104. The circuit breaker maintains normal IE to non-IE class separation, thus maintaining IE integrity. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

This temporary jumper does not degrade the integrity of vital power sources. The temporary jumper run is not over any rotating machinery which could entangle the jumper and potentially cause equipment malfunction. Therefore, there is no possibility that an accident or malfunction of equipment important to safety different than any evaluated previously in the USAR may be created.

A boration flow path to ensure reactivity control and provide an adequate shut down margin as defined by the Technical Specifications is maintained by the modification. There is no reduction in the margin of safety as defined by the bases for any Technical Specification.

SAFETY EVALUATION: 90.SE-037 Revision: 0

Title: Essential Servics Water Train A Fill And Vent Temporary Procedure

Description: This temporary procedure provides a valve line up and means to fill and vent the A Train Essential Service Water (ESW) System from the inservice B Train ESW. The procedure throttles open the cross tie connection between A and B ESW Systems. The cross tie has two manual isolation walves in it which are locked closed, to provide train isolation. The procedure unlocks and throttles open these valves.

At the time, Refuel IV was in progress, only one train of ESW was required to be available to supply plant accident cooling loads. Two trains of ESW are required to be operable during plant Modes 1. Power Operation, through 4, Hot Shutdown, to mitigate the consequences of a Loss Of Goolant Accident or Main Steam Line Break which generate the most severe heat loads.

The procedure implements adequate corrective measures by requiring an operator in the ESW Pump House to terminate the filling of the idle ESW train by isolating the cross tie should the inservice ESW train be called upon to fulfill its safety function. Pressure and temperature indication and plasms remain available to the Control Room operators on the systems cooled by ESW; thus, a reedback indication of any adverse effects is available.

Safety Evaluation: The condition for a water hammer or pump dead head is not created by the fill and vent process because the outlet valves on both the idle and in service ESW Systems provide an open system vent path. Sump level indication is not affected. Therefore, flooding indication due to leakage from the idle train remains available.

The procedure schions do not affect the initiator variables of any previously evaluated accident so there is no increase in the probability of occurrence or the consequences of an accident. The procedure does not change the seismic qualification, environmental qualification or physical separation distance of any equipment. It also does not change the failure mode of any ESW component nor does it adversely affect system piping, therefore there is no increase in the probability of occurrence or the consequences of a malfunction of equipment important to safety.

The procedure does not change the seismic qualification, environmental gualification, or physical separation distance of any equipment. Therefore, the plant's equipment has not been introduced to a new or different failure mechanism which could create a different malfunction or accident.

The Technical Specifications require two trains of ESW to be operable only in Modes 1 through 4. In modes other than these, one train of ESW is required to be available to provide cooling to plant equipment which is required to be operable. The actions in the procedure to terminate the filling of the idle ESW train ensures that the capability to cool the accident loads is safeguarded such that no reduction in the margin of safety is incurred.

SAFETY EVALUATION: 90-SE-040 Revision: 0

Title: Temporar: Power To NK02 And NK04 125V DC Busses

Descriptions This temporary modification provides the means to maintain power to NKAL and NKO4 125V DC busses during their normal charger's (NK22 and NK24 respectively) maintenance by utilizing the spare charger and temporary 5 aper cables. At the time, the plant was shutdown during Refuel IV outag, and maintenance on yellow train chargers NK22 and NK24 was desired. During plant Model 5, Cold Shutdown, and 6, Refueling, one site to onsite '2 overem, one Diesel Generator and one division of electrical busses are required to be operable. The operable 1E system

The start and train, load group 1 (NB01) when the chargers of rain Is.d group 2 (NB02) were taken out of section. NK02 and LKJ4 wrs inergized by the spare charger to maintain protection sector.

The spare charger has a rated output of 300 amps and is idencial to the normal battery chargers, all of which are class The Each sattery charger has sufficient capacity to restore the battery from the 47 sign minimum charge (as duty cycle) to its fully charged state while supplying the larger combined demand of the steady-state loads. We provide indication as the Control Room of spare charger output current because it only has a local amp meter, an additional jumper cable from the spare charger's ap meter to the Control Room ammeter of the charger in maintenance is also provided.

Safety Evaluation: The cables are kept off the floor by securing them with the wrapt or ropes to existing unistrut or II/I pipe supports in the hallway. The supports will not be degraded by the insignificant load the traverary jumper cables present. The unistruct locations the cables are the to are capable of charging the additional load of the cables. The tables runs will be related, not taut, and will not violate the minimum bend tadate crimeria. These routes are not over any rotating machinery of verse emperature environments which could cause the potential for a nullear superty concern.

This modification uses and intent that has been designed into the system for this purpose. The Diest' Generator (one required in Mode 5 or 6) remains available and is not diffected by the temporary jumpers. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of quipment important to safety previously evaluated in the USAR. The cables, spare charger to bus, Control inform metering cable, and NB02 power feed to the spare charger are identical to the cables used by design for the respective connections. Therefore, because identical cables to design are used, the possibility of a different type of accident or malfunction from previous analysis has not been created because the cables maintain design.

There is no reduction in the margin of safety as defined in the bases of any Technical Specification.

SAFETY EVALUATION: 90-SE-041 Revision: 0

Title: Temporary AC Power For Main Control Board And Area Radiation Monitor Control Fanel

Description: This modification provides temporary power from a welding receptacle to a selected cubicle of the class IE NB02 AC electrical bus, which was scheduled to be out of service during Refuel IV outage. The circuits to keep energized were the Main Control Board RL005, RL011, RL017, RL019 and RL023 circuits, and the Area Radiation Monitor Control Panel to enhance the ability to monitor and control the plant above that required for the given plant conditions. The temporary power cable ran from a welding receptacle powered out of non IE breaker 52PG20NCR1 to the out of service IE distribution transformer XNG02A through its breaker.

Safety Evaluation: Maintaining these circuits, energized from a welding receptacle, does not degrade the operability of the operable train circuits because the physical separation between these circuits is not changed. The malfunction probability or failure consequences of the equipment powered and controlled by operable circuits is not increased because these circuits are unaffected. The failure mode of the energized out of service equipment is not changed.

The out of service circuits are not exposed to an over voltage condition because the transformer is not altered or adversely affected by the substitute power source. The temporary cable run is confined to the NB02 Switch Gear Room. There is no increase in the probability of occurrence or the consequences of an accident previously evaluated in the USAR.

The possibility of an electrical short has not been created nor has the operable class IE distribution system's integrity been degraded. The temporary cable run is not over any rotating machinery which could entangle the run and potentially cause equipment important to safety to malfunction. Therefore, there is no possibility that an accident or malfunction of equipment important to safety of a different type than any evaluated previously in the USAR may be created.

A reduction in the margin of safety as defined by the Tec Specifications is not introduced by this temporary jumper becau subject AC power sources and associated distribution systems ' operable and are not degraded by the modification actions.

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SAFETY EVALUATION: 90-SE-042 Revision: 0

Title: Temporary AC Power For Process Radiation Transmitters

Description: This modification provides temporary power from a welding receptacle to a selected cubicle of the class IE NB02 AC electrical bus, which was scheduled to be out of service during Refuel IV outage. Panel circuits energized include the Process Radiation Transmitters GG RT28, GK RT04, GT RT31 and GT RT33.

These monitors provide Fuel Building Ventilation Isolation System, Control Room Ventilation Isolation System, and Containment Purge Isolation System functions. The temporary power cable will run from a welding receptacle powered out of non-IE Breaker 52PG25RDF6 to the out of service IE distribution transformer XNG02B through its breaker.

Safety Evaluation: This condition is not adverse to system operation nor will it increase the consequences of a fuel handling accident because if the non-IE system is lost, the equipment powered by the jumper will fail safe in the same manner as if it were powered from a IE system. The capability to ensure Containment closure has not been diminished by the modification actions because automatic purge isolation remains available. At least one of the two purge line isolation dampers is powered from the operable IE circuits which are not affected by the jumper. Maintaining the distribution panel circuits energized from a welding receptacle does not degrade the operability of the operable train circuits because the physical separation between these circuits has not been changed.

The out of service circuits are not exposed to an over voltage condition because the transformer is not altered or adversely affected by the substitute power source. There is no increase in the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

The possibility of an electrical short has not been created nor has the operable class IE integrity been degraded. The temporary cable run is not over any rotating machinery which could entangle the run and potentially cause a malfunction of equipment important to safety. Therefore, there is no possibility that an accident or malfunction of equipment important to safety of a different type than any evaluated previously in the USAR may be created.

The margin of safety as defined by the Technical Specifications is not reduced because the minimum electrical busses energized in the specified manner remain intact and are not affected by the subject jumper

SAFETY EVALUATION: 90-SE-043 Revision: 0

Title: Temporary AC Power For Control Room Air Conditioning Dampers

Description: This modification provides temporary power from a welding receptacle to a selected cubicle of the class IE NB02 AC electrical bus, which was scheduled to be out of service during Refuel IV outage. The circuits to keep energized were those for the dampers in the out of service Control Room AC unit. The temporary power cable ran from a welding receptacle powered out of non-IE breaker 52PG6HCR1 to the out of service IE distribution transformer XNG04C through its breaker.

Safety Evaluation: The failure mode of the energized out of service equipment is not changed. The out of service circuits are not exposed to an over voltage condition because the transformer is not altered or adversely affected by the substitute power source. The temporary power cable run breaches fire/pressure door 15011 to the B Train Control Room AC Unit Room. The appropriate fire impairment measures are to be implemented to prevent any increase in ire consequences from occurring.

The pressure boundary will be restored if a Control Room Ventilation Isolation Signal occurs while this door is breached. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

The possibility of an electrical short has not been created nor has the operable class IE integrity been degraded. The temporary cable run is not over any rotating machinery which could entangle the run and potentially cause equipment important to safety to malfunction. Therefore, there is no possibility that an accident or malfunction of equipment important to safety of a different type than any evaluated previously in the USAR may be created.

A reduction in the margin of safety as defined by the Technical Specifications is not introduced by this cable run because the subject AC power sources and associated distribution systems remain operable.

SAFETY EVALUATION: 90-SE-044 90-SE-045 Revision: 0

Title: Procedures For Essential Service Water System Pressure Test

Description: These procedures were written to perform a System Pressure Test of a portion of Train A of the Essential Service Water (ESW) System and a leakage test on ESW cross ties to the Service Water System. During the performance of these procedures, Train A will be out of service and the plant will be in Mode 5, Cold Shutdown, Mode 6, Refueling, or defueled.

In order to pressurize the portion of the system being tested, a temporary hose will be connected between Fire Protection System Fire Hose Stations HR-140 and HR-141 to provide a flow path from ESW Train B to Train A. The temporary jumper is connected to the B Train ESW piping via 1 1/2 inch fire hose station piping.

Safety Evaluation: Each ESW pump is required to provide a minimum flow capacity during a post Loss Of Coolant Accident. During Modes 5, 6, or defueled, some of the heat loads will not be present which allows some components to be isolated. This test will isolate the B Train Containment cooling units. The cain in system capacity caused by the Containment cooling units being clated more than compensates for the loss of capacity should a break occur in the jumper. The jumper break condi'.on, with Containment cooling units isolated, woull result in an excess ESW system capacity of about 3,000 gpm.

The Fire Protection Manual requires that the Fire Suppression System be maintained operable at all times. The procedure requires that a Y-connection be installed at HR-141 to allow operation of Train B Fire Protection during the performance of the test. Therefore, this procedure will not adversely affect the operation of the Fire Protection System.

This procedure will only be performed when the ESW System has a redured system load and the Fire Protection System Header will not be impaired. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

There are no unique or different challenges to equipment nor is any unique degradation to equipment expected. There is no possibility that an accident or malfunction of equipment important to safety of a different type than evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification. SAFETY EVALUATION: 90-SE-046 90-SE-048 Revision: 0

Title: Procedure For Essential Service Water System Pressure Test

Description: Procedures were written to perform a System Pressure Test of the B Train Essential Service Water (ESW) System. During the performance of this procedure. Train B will be out of service and the plant will be in Mode 5, Cold Shutdown, Mode 6, Refueling, or defueled.

In order to pressurize the portion of the system being tested, a temporary hose will be connected between Fire Protection System Fire Hose Stations HR-140 and HR-141 to provide a flow path from ESW Train A to Train B. The temporary jumper is connected to the Train A ESW piping via 1 1/2 inch Fire Hose Station piping.

Safety Evaluation: Each ESW pump is required to provide a minimum flow capacity during a post Loss Of Goolant Accident (LOCA). During Modes 5, 6, or defueled, some of the heat loads will not be present which allows some components to be isolated. This test will isolate the A Train Containment cooling units. The gain in system capacity caused by the Containment cooling units being isolated more than makes up for the loss of capacity should a break occur in the jumper. The jumper break condition with Containment cooling units isolated would result in an excess ESW System capacity of about 3,700 gpm.

The Fire Protection Manual requires that the Fire Suppression System be maintained operable at all times. The procedure requires that a Y-connection be installed at HR-141 to allow operation of Train B Fire Protection during the performance of the test. Therefore, this procedure will not adversely affect the operation of the Fire Protection System.

This procedure will only be performed in Modes 5, 6, or defueled, when the ESW System has a reduced system load and the Fire Protection Header will not be impaired. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

There are no unique or different challenges to equipment nor is any unique degradation to equipment expected. There is no possibility that an accident or malfunction of equipment important to safety of a different type than evaluated previously in the τ may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-047 Revision: 0

Title: Fuel Transfer Canal Drainage Procedure

Description: The subject procedure provides the means to drain the Fuel Transfer Canal (FTC), which is adjacent to the Spent Fuel Pool (SFP), by using a temporary pump and hose taking suction out of the FTC and routing it back to the Recycle Holdup Tanks (RHUTs) by way of the Spent Fuel Pool Cooling and Cleanup System and Boron Recycle System (BRS) piping. The temporary pump is connected via a hose to the 3 inch flange connection at the top of the FTC.

Safety Evaluation: The procedure does not have the potential to overpressurize the piping or RHUTs because the RHUTs have an overflow line. Securing the temporary pump to the SFP Bridge Crane above the FTC introduces no potential adverse effects to the FTC. If the pump fell into the FTC it would not create any more damage to the liner plate than would the dropping of a fuel assembly.

The potential to drain the SFP is not created by the procedure because the temporary pump does not take suction from the SFP nor does it have sufficient mass to cause damage to the FTC beyond that which has been previously evaluated.

The probability of a fuel handling accident within the Fuel Building as previously evaluated has not been increased and the operability of the Engineered Safety Features (ESF) Filtration System has not been degraded by the actions of this procedure. Therefore, previously evaluated probabilities of occurrence and the consequences of an accident remains unchanged.

Modification by this procedure does not increase the malfunction probability of the SFP Cooling and Cleanup Systems to remove the decay heat from the spent fuel assemblies and maintain the SFP water temperature within limits. The fuel handling equipment, storage racks, ESF filtration equipment, and radiation monitors are not affected because the procedure does not interfere directly or indirectly with their performance. Therefore, there is no increase in the probability of occurrence or the consequences of a malfunction of equipment important to safety.

The procedure does not actuate, increase the actuation of, or if actuated, alter the function of this equipment. There is no possibility that an accident or malfunction of equipment important to safety of a different type than any previously evaluated in the USAR may be created.

The restrictions on minimum water level of 23 feat above the fuel assemblies in the SFP to ensure that sufficient water depth is available to remove iodine gap activity released during a rupture of an irradiated fuel assembly is retained by the procedure because it does not drain or have the potential to drain the SFP. The margin of safety as reflected in the Technical Specifications is not reduced. SAFETY EVALUATION: 90-SE-049 90-SE-050 Revision: 0

Title: Sequencer Testing

Description: The subject change is applicable to two procedures, Cold Shutdown to Hot Standby procedure and Reactor Coolant System Fill and Vent procedure. It incorporates the flexibility to accommodate sequencer testing if desired at the time of procedure execution. The Centrifugal Charging Pumps (CCPs) and Positive Displacement Pump (PDP) are configured by the change to provide conditions to load a CCP on its Diesel Generator in the recirculation mode, have the other CCP in pullto-lock and have the PDP in operation providing seal injection.

Safety Evaluation: The potential to pressurize the Reactor Coolant System (RCS) from a CCP and PDP concurrently is not possible by the procedure configuration because the idle CCP is in pull-to-lock, preventing it from automatically starting. There are no automatic starting signals for a CCP during Mode 5. Cold Shutdown, or Mode 6, Refueling. The other CCP is isolated from injection into the RCS; therefore, it also lacks the ability to pressurize the RCS. The PDP that is operating cannot over pressurize the RCS because the cold overpressure protection provided by design can mitigate the consequence of a CCP pressurization event, which is more severe than a PDP pressurization event. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

This change to the procedures does not affect the way the CCPs and the PDP are operated or introduce any changes to operating conditions which could create a type of accident or malfunction of equipment important to safety different from any previously evaluated in the USAR.

The Technical Specifications were reviewed and found to require an operable boration flow path and cold overpressure protection. An operable boration flow path is maintained in this procedure as the CCP that is in pull-to-lock is still capable of being manually started, only its handswitch is in the pull-to-lock position rather than the stop position. Cold overpressure protection is maintained with this procedure since it allows injection from only one of the charging pumps. Therefore, the margin of safety as defined in the Technical Specifications is not reduced.

SAFETY EVALUATION: 90-SE-051 Revision: 0

Title: Procedure For Essential Service Water System Fill and Vent

Description: This procedure was written to perform a fill and vent of the B Train Essential Service Water (ESW) System. During the performance of this procedure, Train B will be out of service and the plant will be in Mode 5, Cold Shutdown, Mode 6, Refueling, or defueled.

In order to pressurize the portion of the system being tested, a temporary hose will be connected between Fire Protection System Fire Hose Stations HR-140 and HR-141 to provide a flow path from ESW Train A to Train B. The temporary jumper is connected to the Train A ESW piping via 1 1/2 inch Fire Hose Station piping.

Safety Evaluation: Each ESW pump is required to provide a minimum flow capacity during a post Loss Of Coolant Accident (LOCA). During Modes 5, 6, or defueled, some of the heat loads will not be present which allows some components to be isolated. This test will isolate the A Train Containment cooling units. The gain in system capacity due to the Containment cooling units being isolated makes up for the loss of capacity should a break occur in the jumper. The jumper break condition would result in an excess ESW System capacity of about 3,700 gpm.

The Fire Protection Manual requires that the Fire Suppression System be maintained operable at all times. The procedure requires that a Y-connection be installed at HR-141 to allow operation of Train B Fire Protection during the performance of the test. Therefore, this procedure will not adversely affect the operation of the Fire Protection System.

This procedure will only be performed in Modes 5, 6 or defueled when the ESW System has a reduced system load and the Fire Protection System Header will not be impaired. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

There are no unique or different challenges to equipment nor is any unique degradation to equipment expected. There is no possibility that an accident or malfunction of equipment important to safety of a different type than evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

SAFETY EVALUATION: 90-SL-052 Revision: 0

Title: Volume Control Tank Monitoring

Description: This temporary modification allows monitoring of the Volume Control Tank (VCT) while Pressure Transmitter BG PT-115 is out of service for repair and calibration. A gauge is installed locally on the VCT gas space sampling line isolated by normally closed VCT To Waste Gas Compressor Return Valve BG V244. The gauge will be in service for approximately five days. The connection point is at a non-safety related/non-seismic quick disconnect using tygon tubing for connecting to a 0-60 psi gauge.

Safety Evaluation: The only impact on system operation is disconnection of the pressure gauge to obtain a gas sample, if needed. Previously evaluated accidents and malfunctions are not affected by the addition of the temporary gauge.

A leak from the temporary tubing could cause a release of nitrogen which would tend to depressurize the VCT gas space. Since the nitrogen makeup to the VCT is in auto, a small leak would not depressurize the space. Even if the gas space were completely depressurized, the charging pump suction pressure would still remain above Net Positive Suction Head from the head pressure supplied by normal VCT level. There is no possibility that an accident or malfunction of equipment important to safety of a different type than previously evaluated in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-053 Revision: 0

Title: Opening Of Containment Isolation Valve Fo: Accumulator Pressurization

Description: This temporary modification involves mechanically blocking open Containment Isolation Valve EP HV8880. The actuator for t's valve was removed for repair of the valve's internals during Refuel iV outse. The valve is required to be open to pressurize the accumulators for plant testing prior to repair and actuator reinstallation.

Safety Evaluation: Valve EP HV8880 is normally closed and has an automatic Containment Isolation Signal A isolation function. This function is not required in Modes 5, Cold Shutdown, or 6, Refueling. In plant Modes 5 or 6, during core alterations or movement of irradiated fuel, the Containment penetrations must have one isolation valve closed. The inside Containment isolation valve will provide this function when valve EP HVS880 is blocked open per normal design. The release of radioactive materials to the environment caused by a fuel handling accident has not been increased because Containment closure is not affected. The change does not adversely affect system malfunction consequences for the allowable modes of this evaluation because Containment closure is all that is required.

There is no possibility that an accident or malfunction of equipment important to safety of a different type than evaluated previously in the USAR may be created.

The margin of safety in the Technical Specifications is not reduced by the modification actions because Containment closure is maintained and is not reduced or degraded by the modification.

SAFETY EVALUATION: 90-SE-055 Revision: 0, 1

Title: Essential Service Water And Service Water Flow Balance

Description: This temporary procedure balances the Service Water (SW) and Essential Service Water (ESW) Systems in the normal mode of plant operation. The balance procedure was written for plant Modes 5, Cold Shutdown, and 6, Refueling, when only one train of ESW is required to be operable per Technical Specifications. The subject procedure change is to extend the limitations of the procedure to include Mode 3, Hot Standby, and Mode 4, Hot Shutdown.

Safety Evaluation: Review of the procedure and the changes made to it has concluded that it includes adequate corrective measures to ensure post accident cooling flows to equipment important to safety. Accident consequences remain unchanged because the change introduced does not increase the amount of radioactive material at the plant nor change or degrade the physical or operational barriers of the plant to confine or mitigate the release of these materials from previous analysis. Assessment of the effects this procedure change has on the malfunction probability of the ESW equipment has concluded no increase in the probability of this equipment's malfunction occurrence and its consequences.

There is no possibility that an accident or malfunction of equipment important to safety of a type different than any previously evaluated in the USAR may be created.

The capability and capacity to provide cooling to the plant's heat loads have not been degraded or impaired by the subject change. The margin of safety as defined by the Technical Specification Bases is not reduced.

SAFETY EVALUATION: 90-SE-057 Revision: 0

Title: Emergency Fuel Oil Pump Blockage Check

Description: This temporary procedure provides for verification of no line blockage, either in the suction or in the discharge line of Emergency Fuel Oil (EFO) Pump PJEOIA. This will be achieved by blowing air backwards through the pump. The EFO System will remain inoperable during the performance of this test.

Safety Evaluation: Damage to the pump is extremely unlikely since the pump is designed to rotate in the reverse direction without damage. This will have no long term effect on any plant components. There is nothing in the USAR that would prohibit this type of test. The valve lineup in this test, which is different than the USAR, will be restored to normal before restoring the EFO System to operable status. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

There is no possibility that an accident or malfunction of equipment important to safety of a type different than any previously evaluated in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-058 Revision: 0

Title: General Modification Request Program

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Description: This procedure has been written to implement a new program at Wolf Creek Generating Station (WCGS) to request and implement modifications to structures, systems, and components outside the power block. These new "General Modifications" will be applied to all structures, systems, and components which fall outside the Plant Modification Request (PMR) process. This General Modification Request (GMR) is only for permanent modifications.

This new process transfers the responsibility for making design changes to certain structures, systems, and components from Nuclear Plant Engineering to the Manager Maintenance and Modifications. This procedure provides the appropriate controls which assure that no changes will be made which affect the WCGS Design Basis. Safety Evaluation: Although some of the structures, systems, and components which fall under the GMR process are described in the USAR and other plant documents, a GMR cannot be processed to add, change or increase the risk to any safety related or special scope systems. In addition, nr general modifications will be made which could affect the design basis for WCGS. Any changes or additions made by the GMR process shall adhere to the same codes and standards that are used by the PMR process. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety evaluated previously in the USAR.

There is no possibility that an accident or malfunction of equipment important to safety of a type different than evaluated previously in the USAR may be created.

No changes can be made by this procedure which would affect Technical Specification equipment or jeopardize this equipment's ability to perform its design function. Therefore, no reduction in the margin of safety as defined by the bases for any Technical Specification results.

SAFETY EVALUATION: 90-SE-059 Revision: 0

Title: Temporary Containment Cooling Unit Header Flow Instrumentation Installation

Description: This is a temporary installation of two differential pressure cells and two pressure gauges to obtain the flow in the header to the Containment Cooling Units and the discharge/back pressure of the Essential Service Water (ESW) System to the Service Water (SW) System for each train of ESW.

Safety Evaluation: The commercial pipe fittings, gauges and flex hose connected at the connections shall maintain system design pressure and the seismicity of the pipe lines will remain unaffected. Each connection's isolation valve will only be opened momentarily to take a reading and then returned to its normally closed position. Therefore, with the connection's valve remaining normally isolated, the leakage potential from the ESW System has not been increased and remains within the bounds of previous analysis.

Bec use the modification does not affect this equipment, there no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety.

The failure modes analysis of the ESW equipment has not been changed by the temporary instrumentation. There is no possibility that an accident or malfunction of equipment important to safety of a type different than evaluated previously in the USAR may be created.

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The reliability, capability and integrity of the ESW System in providing cooling flow to the plant during accident conditions has not been degraded by the modification. There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-060 Revision: 0

Title: Radiological Control Area Designation Of Storage Building

Description: This evaluation is for the designation of a storage building as a Radiologically Controlled Area (RCA). This building is to be used as a storage area for radioactive materials such as equipment and tools, especially outage related items. No liquid, gaseous or processed solid radwaste material will be processed or stored in this area because this area was not designed to the requirements of Regulatory Guide 1.143, which addresses design requirements such as drainage, spillage, overflow, seismic and materials selection criteria for radioactive waste systems, structures and components.

Existing RCA procedural requirements will be invoked upon this new storage area. Prior to transport and subsequent storage in the new RCA storage building, all items will be decontaminated, free of loose contamination. wrapped/bagged and placed into containers. These containers will not be opened in the new RCA storage building, they will only be allowed to be opened when inside the Power Block RCA.

Safety Svaluation: The new storage area is at the same grade as the plant, which is above the probable maximum flood level and the area need not have any seismic or tornado protection features. The potential to release radioactivity to the environment from this new RCA storage area has not been introduced because adequate controls and protection are provided. The consequences of these accidents bound any potential radiological consequences which could occur in the new RCA storage area. The probability of occurrence and the consequences of an accident or malfunction previously evaluated in the USAR is not increased.

This building is not considered in the USAR accident evaluations. The closest building which contains equipment important to safety is approximately 700 feet away. There is no possibility that an accident or malfunction of equipment important to safety of a different type than evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification. SAFETY EVALUATION: 90-SE-061 90-SE-062 Revision: 0

Title: Temporary Disabling Of Seal Water Pressure Controllers

Description: These temporary modifications disable Steam Generator Feedwater Pump PAEOLA & B Seal Water Pressure Controllers AE PDIC 52, 55, 58, and 61 to allow installation of pressure gauges and temporary air supplies for manual positioning of Pressure Control Valves AE PDV 52, 55, 58 and 61. This modification is being performed to aid controllers in properly maintaining seal water pressure.

Safety Evaluation: The disabling of the Steam Generator Feedwater Pump Seal Water Pressure Controllers and initiation of manual control will not increase the probability of occurrence of a Loss Of Normal Feedwater Accident or its consequences. The probability of occurrence o. a malfunction of the Steam Generator Feedwater Pump Seal Water Pressure Controller and its consequences are not increased.

There is no possibility that an accident or malfunction of equipment important to safety of a different type than evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-063 Revision: 0

Title: Rotameter Array Assembly For Containment Personnel Airlock Leak Testing

Description: A rotameter array assembly used for leak testing the Containment Personnel Airlock is fastened to a seismic structural tube support in the immediate vicinity of the airlock. The assembly weighs about 10 pounds. It is fastened with large clamps to the seismic support supporting the sampling line (tubing) to the Containment purge noble gas activity monitor.

Safety Evaluation: This method of clamping the instrument to the support does not adversely affect or degrade the support. The failure of these clamps would free the assembly from the support and the assembly would fall approximately five feet to the concrete floor without any adverse effects to the safety-related equipment nearby.

Assessment of staging the rotameter array assembly on the seismic support has concluded that this change lacks the potential to cause an
increase in equipment malfunction or accident occurrence and consequences previously evaluated in the USAR.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined by the bases in any Technical Specification.

SAFETY EVALUATION: 90-SE-064 Revision: 0

Title: Essential Service Water Valve House Temporary Sump Pump

Description: The subject modification involves the temporary lifting of the B Train Essential Service Water (ESW) Valve House personnel access cover. The cover is placed on wood block supports directly above the access hole. To facilitate sump pump operation, a hole is put in one of the blocks to allow the pump hose to go from the hole to the desired discharge.

Safety Evaluation: The access cover provides protection to the safetyrelated equipment contained beneath from tornado missiles and inclement weather. This cover configuration still provides adequate tornado protection to the enclosure's equipment. The enclosure houses no components which need to be protected from the depressurization effects of a tornado. The outside diameter of the personnel access cover is significantly larger than its respective access opening inside diameter. Therefore, it is not possible for the personnel access cover to drop into the enclosure during a seismic event; i.e., no II/I condition is created. No safety-related components lay directly below the access opening.

The radiological consequences of previously evaluated accidents has not been increased because the physical and operational barriers utilized to confine the radiological consequences of these accidents have not been impaired or adversely affected by the modification. The subject modification to the personnel access cover allows for sump pump operation without any increase in the enclosure's equipment malfunction probability or consequences thereof.

There is no possibility that an accident or malfunction of equipment important to safety of a type different than any evaluated previously in the USAR may be created.

There is no reduction ir the margin of safety as defined in the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-065 Revision: 0

Title: USAR Chapter 5 Change

Description: The subject USAR change makes a change to the USAR text in Section 5.2.2.10.4.1. This section discusses six control, and measures (listed "a" through "f") to be considered when developing operating procedures to be used during low pressure and temperature operation with the Reactor Coolant System (RCS) in a water solid condition. These concerns are not mandatory requirements. These concerns are to be considered when writing operating procedures for this plant condition in order to protect against or mitigate an over-pressurization transient.

The change to concern "b" is to change the words "normally remain" to "may be" in regards to the open configuration of the letdown orifices. This change is more permissive in reflecting plant configuratio^{*} during this mode of operation. The configuration loosely specifies the letdown orifices to "may t open" from "normally remain open" when the RCS pressure is being maintained by the low pressure letdown control valve of the Residual Heat Removal (RHR) System. The over-pressurization relief capability provided by two Power Operated Relief Valves (PORVs), or two RHR relief valves, or an RCS vent opening of at least two square inches as required by the Technical Specifications are not affected by the USAR text change. These orifices provide the previously evaluated over-pressurization relief capability regardless of the configuration of the letdown orifices.

Safety Evaluation: Changing the words "normally remain" to "may be" in the USAR does not affect the operability of any equipment. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

No equipment is affected in a different way than designed. There is no possibility that an accident or malfunction of equipment important to safety of a type different than previously evaluated in the USAR may be created.

There is no reduction in the margin of safety introduced by changing the words "normally remain" to "may be" in the USAR. The operability of two PORVs, or two RHR suction relief valves, or an RCS vent opening of at least two square inches is not affected by changing the USAR text.

SAFETY EVALUATION: 90-SE-067 Revision: 0

Title: USAR Chapter 11 Change

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Description: The subject USAR change provides a clarification of dilution factors, release points, calibration and maintenance of monitors and describes the vendor services being used at the plant. Vendo: services are being utilized to clean contaminated laundry which helps to prevent the spread of highly contaminated particles throughout the laundry water systems. Vendor services are also used to process portions of the Liquid Waste Process System products. Examples include the Chemical Drain Tanks, Reactor Makeup Water, Waste Holdup Tanks and Floor and Equipment Drain Tanks.

Safety Evaluation: The activities and services provided by vendors in these areas must meet the same laundry cleaning requirements that Wolf Creek Generating Station must meet. The subject USAR change does not change any setpoints or release points at the plant. Previously evaluated accidents and malfunctions of safety related equipment are not affected and no margin of safety is reduced.

SAFETY EVALUATION: 90-SE-068 Revision: 0

Title: USAR Chapter 12 Change

Description: The subject USAR change has been initiated for the purpose of clarifying equipment usage and monitoring techniques presently being used for Radiation Protection purposes. These changes will allow a better understanding of the practices now employed.

Safety Evaluation: These USAR changes clarify the working conditions and further explain the monitoring techniques presently being used. The change does not diminish any radiation monitoring or equipment qualifications presently being used. Previously evaluated accidents and malfunctions of safety related equipment are not affected and no margin of safety is reduced.

SAFETY EVALUATION: 90-SE-070 Revision: 0, 1, 2

Title: Essential Service Water Flow And Pressure Instrumentation

Description: Instruments were temporarily installed on both trains of the Essential Service Water (ESW) System to take flow and pressure readings. The instruments include two flow meters, sixteen pressure gauges and four differential pressure cells. The installation of these instruments is not reflected in the USAR, therefore, a USAR description change is introduced.

Revision 1 of the subject modification was created to leave the root valves to two of the differential pressure (DP) cells in the open position instead of only opening them when a reading is taken. These DP cells measure the differential pressure across each train of the ESW System.

Revision 2 of the subject modification was created to require the use of Q-fittings in the communicating lines to the two DP cells installed to measure the ESW System differential pressure.

Safety Evaluation: The small ESW connection, vent, and drain lines that the instrumentation is to be installed on are Seismic Category I. The commercial pipe fittings, gauges, and flex hose connected at these locations shall maintain system operating pressure and will not adversely affect the seismicity of the pipe lines.

Assessment of the affect this modification has on the malfunction probability or possibility of the ESW equipment has concluded no increase in the malfunction frequency of this equipment because this equipment is not affected by the modification. The failure modes analysis of the ESW equipment has not been changed by the temporary instrumentation. The reliability, capability, and integrity of the ESW System in providing cooling flow to the plant during accident conditions has not been degraded by the modification.

Leaving the root values open to the DP cells on the ESW System does not create the possibility of new types of accidents because the loss of UHS inventory from installing the DP cells is inconsequential to the operation or fulfillment of the safety function of the ESW System.

The reliability, capability, and integrity of the ESW System in providing cooling flow to the plant during accident conditions has not been degraded by this modification. Therefore, there is no reduction in the margin of safety as defined by the bases of any Technical Specification. SAFETY EVALUATION: 90-SE-072 Revision: 0

Title: Temporary Cooling Of Main Transformer

Description: This temporary modification connects a soaker hose from the Demineralized Water Storage Tank TANOI and runs it to Main Transformer XMAOLB. This is done to provide cooling for the Main Transformer during the extreme heat experienced in the summer.

Safety Evaluation: The tank is vented, insulated, and heated. Addition of the hose will not affect the ability of the Demineralized Water System to perform its intended function. The system is non-safety related and the accident analysis of the USAR takes no credit for its existence. Therefore, it is concluded that the probability of an accident or malfunction occurrence and the consequences thereof are not increased from that which has been previously evaluated.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined by the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-074 Revision: 0

Title: Essential Service Water System Heat Exchanger Flow And Pressure Test

Description: This test trends the flow to and differential pressure (DP) across the heat exchangers in the Essential Service Water (ESW) System. The test temporarily installs flowmeters and DP gauges at the heat exchangers to obtain this data.

The installation of this instrumentation is not reflected on the various system Piping & Instrument Diagram figures in the USAR; therefore, this test introduces a change to these systems from their description in the USAR.

Safety Evaluation: The vent and drain lines which the DP gauges are to be installed on are seismic category I. Installing the temporary instrumentation on the heat exchangers does not affect the initiator variables of any previously evaluated accidents or malfunctions nor does the instrumentation adversely affect the seismicity of the ESW System. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

Installing test instrumentation on the ESW System does not create the possibility of different types of accidents because the ESW pumps and associated piping are not affected or degraded. No unique or different failure will be introduced by installing the test instrumentation. There is no possibility that a malfunction of a different type than previously evaluated in the USAR may be created.

The capability and capacity to provide cooling to the plant's heat loads have not been degraded or impaired by the test instrumentation. The margin of safety defined by the Technical Specification Bases is not reduced.

SAFETY EVALUATION: 90-SE-075 Revision: 0

Title: Scaffolding In Diese: Building Ventilation System Exhaust Duct

Description: Placing scaffolding inside the exhaust duct of the Diesel Building Ventilation System will block approximately 25% of the duct cross sectional area. The primary source of combustion air for the diesel engine is from the Supply Air System.

The scaffolding will not affect diesel operation if the Supply Air System is operating. However, the exhaust duct serves as a backup source of combustion air and automatically opens Exhaust Damper GM H219 (D010) upon a diesel start. To maintain the assurance of adequate combustion air, Damper GM TZ11A (D007) in the supply duct work, should be opened for the duration scaffolding exists in the exhaust duct.

Safety Evaluation: The Diesel Building Supply and Exhaust Ventilation Systems will remain inservice and the supply dampers will be open to assure an ample supply of combustion air for the diesel engines. Working inside the duct will not prevent the exhaust dampers from functioning. There is no increase in the probability of occurrence and the consequences of any previously evaluated accidents or safety related equipment malfunctions.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined by the bases in any Technical Specification.

SAFETY EVALUATION: 90-SE-076 Revision: 0

Title: Diesel Generator Supply Fan Control Procedure Change

Description: This procedure change places the control switches for the Diesel Generator Supply Fans, CGMO1A and CGMO1B, in pull-to-lock for the normal position. This change is necessary to preclude over-cooling of the Diesel Generator jacket water during cold weather conditions. In cold weather, auto start of the fans caused by rising room temperature, cools the jacket water to temperatures below the alarm setpoint. This over-cooling is caused by the temperature setpoints for fan auto start/stop being at the lower end of the allowable room temperature range combined with the localized effect of extremely cold entering ventilation air. The problem of over-cooling of the jacket water can be prevented by controlling the fan start/stop to maintain the room temperature at a higher level within the allowable range.

Safety Evaluation: Provided that the Control Room monitors and maintains Diesel Room temperatures within the normal operating range and start the fans upon Diesel Generator start, the operability of the Diesel Generators will not be affected. Therefore, there is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

This procedure change does not create any new challenges to equipment important to safety. Therefore, there is no possibility that an accident or malfunction of equipment important to safety of a type different than evaluated previously in the USAR may be created.

Since the operability of the Diesel Generators is not impaired, there is no reduction in the margin of safety as defined by the bases of any Technical Specification.

SAFETY EVALUATION: 90-SE-077 Revision: 0

Title: Component Cooling Water Heat Exchanger Performance Test

Description: The subject procedure is for a performance test of the Component Cooling Water (CCW) heat exchangers in the Essential Service Water (ESW) System. The test involves temporarily installing flowmeters, differential pressure (DP) gauges, and resistance temperature detectors on the heat exchangers to obtain performance data. The installation of this instrumentation is not reflected on Figures 9.2-13 in the USAR; therefore, this test introduces a change to this system from its description in the USAR. Safety Evaluation: The vent and drain lines that the DP gauges are to be installed on are Seismic Category I. The commercial pipe fittings, swagelok and flex hose connected at these locations maintain system operating pressure. The flex hose does not rigidly couple the DP gauge load to the heat exchanger. The flowmeter and transducers installed on the headers to each heat exchanger weigh approximately 10 pounds and do not adversely affect the seismicity of the piping.

Each connection's isolation valve will only be opened momentarily to take a reading and then returned to its normally closed position. Therefore, with the connection's valve remaining normally isolated, the leakage potential from the ESW System has not been increased and remains within the bounds of previous analysis. This test and associated test instrumentation does not increase the malfunction frequency of equipment important to safety because this equipment is not adversely affected or challenged by the test or test instrumentation.

The system alignment used during the test is the normal alignment, therefore, no abnormal mode of operation is introduced. The failure modes analysis of the ESW and CCW equipment has not been changed by the test or temporary instrumentation. Therefore, there is no possibility that an accident or malfunction of equipment important to safety of a different type than any evaluated previously in the USAR may be created.

The reliability, capability and integrity of the ESW System in providing cooling flow to the plant during accident conditions has not been degraded by the test instrumentation. There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-078 Revision: 0

Title: Radiation Alarm Setpoint Increase Because Of Temporary Low Specific Activity Container Location

Description: In order to facilitate the packaging of radwaste filters in the Radwaste Building, Health Physics personnel needed to move some low specific activity containers into the vicinity of Area Radiation Monitor SD RE-7. The radiation levels in these containers were high enough to set off area Hi and Hi-Hi alarm (62A & B) in the Control Room. Since these alarms have no reflash, this temporary modification was written to clear these alarms by raising the Hi and Hi-Hi alarm setpoints on SD RE-7 from 2.5 mR/hr to 100 mR/hr and 15 mR/hr to 1 R/hr, respectively.

Safety Evaluation: The Area Radiation Monitoring System monitors do not initiate operation of any Engineered Safety Features Systems in the event that airborne radioactivity in excess of allowable limits exists. Changing the alarm setpoints of this monitor does not affect its ability to measure radiation levels in this area, but does clear the annunciator in the Control Room which would allow other area radiation monitors in the same loop to annunciate on the Control Room panel at the lower alarm setpoints. This temporary modification does not change any alarm setpoints for any other area radiation monitors. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

The radiation monitoring instruments required for plant operation are operable per the Technical Specifications. No margin of safety as defined by the bases for any Technical Specification is reduced.

SAFETY EVALUATION: 90-SE-079 90-SE-084 Revision: 0

Title: ESW Cooling Unit Performance Testing

Description: This procedure involves performance testing of the safety related room cooling units and Containment cooling units cooled by the Essential Service Water (ESW) System. The test temporarily installs flowmeters, differential pressure gauges, and resistance temperature detectors on the cooling units to obtain performance data.

Safety Evaluation: Installing the temporary instrumentation on the cooling units does not affect the initiator variables of any previously evaluated accidents or malfunctions nor does the instrumentation adversely affect the seismicity of the ESW System. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

Installing test instrumentation on the ESW System does not create the possibility of a new type of accident because the ESW pumps and associated piping are not affected or degraded. No unique or different failure will be introduced by installing the test instrumentation. There is no possibility that a malfunction of a different type than previously evaluated in the USAR may be created.

The capability and capacity to provide cooling to the plant's heat loads have not been degraded or impaired by the test instrumentation. The margin of safety as defined by the Technical Specification Bases is not reduced.

SAFETY EVALUATION: 90-SE-080 90-SE-085 Revision: 0

Title: Class IE Air Conditioning Unit And Control Room Air Conditioning Unit Performance Testing

Description: This procedure involves performance testing on the Class 1E Air Conditioning Units and the Control Room Air Conditioning Units. The test temporarily installs flowmeters, differential pressure (DP) gauges, and resistance temperature detectors on the units to obtain performance data.

The Class IE Air Conditioning Units provide the Switchgear Rooms and Battery Rooms with a conditioned atmosphere while the Control Room Air Conditioning Units provide the Control Room with a conditioned atmosphere. The air conditioning units' condenser is supplied by Essential Service Water (ESW). DP gauges are installed on drain lines of the seismic category I condenser units.

Safety Evaluation: Installing the temporary instrumentation on the air conditioning units does not affect the initiator variables of any previously evaluated accidents or malfunctions nor does the instrumentation interfere with the normal function of the unit or its associated systems. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

The installation of DP indicators on the drain connections does not degrade the ESW pumps, nor challenge the piping integrity. There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

The capability and capacity to provide cooling to the plant's heat loads have not been degraded nor impaired by the procedure. The margin of safety as defined by the Technical Specification Bases is not reduced.

SAFETY EVALUATION: 90-SE-081 Revision: 0

Title: Procedure For Chemical Treating Of Stagnant And Low Flow Essential Service Water Piping And Components

Description: The subject procedure provides instructions for chemically treating stagnant and low flow Essential Service Water (ESW) piping and components. This is accomplished by connecting a chemical addition metering pump to the appropriate injection valve and pumping chemicals at a controlled rate to achieve desired chemical concentration. In the case of stagnant piping, drain values are opened at the end of the piping run to flush the chemicals through the line.

Safety Evaluation: The connection and use of a chemical injection unit at ESW chemical addition valves will not affect the initiators of previously evaluated accidents nor will it degrade the performance of any equipment. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

This procedure causes no new challenges to equipment important to safety. There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined by the bases in any Technical Specification since the ability of the ESW System to provide a source of cooling water will not be degraded by this procedure.

SAFETY EVALUATION: 90-SE-082 Revision: 0

Title: Diesel Generator Intercooler, Jacket Water And Lube Oil Heat Exchanger Performance Test

Description: This procedure involves performance testing on the Diesel Generating Intercooler, Jacket Water and Lube Oil Heat Exchangers. The test temporarily installs a flowmeter, different pressure gauges, and resistance temperature detectors on the Diesel Generator Heat Exchangers to obtain performance data.

Safety Evaluation: The installation of test instrumentation will not interfere with the function of the Diesel Generator. The cooling capability of the Diesel Generator Heat Exchangers will remain unchanged because no loss of Essential Service Water coolant is introduced, thus keeping the unit within its normal parameters. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

The installation of DP indicators on the EF drain connections does not degrade the ESW pumps, nor challenge the piping integrity. Isolation of the drain connections when a DP reading is not being taken assures no ESW inventory loss.

There are no unique or different challenges to equipment important to safety created nor is there any unique degradation to this equipment

expected because of the small mass and non-rigid connections of the temporary instrumentation. Therefore, there is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

The capability and capacity to provide cooling to the Diesel Generator has not been degraded nor impaired by the procedure, thus fetaining the margin of safety defined by the Technical Specifications.

SAFETY EVALUATION: 90-SE-083 Revision: 0, 1

Title: USAR Chapter 13 Change

Description: The subject USAR Change Request addresses a change to the training program described in USAR Section 13.2. The change to USAR paragraph 13.2.1.2.8.2 under the title of "Licensed Operator Requalification Training Standards", reflects the satisfactory score the operator must achieve on the walkthrough portion of the requalification exam and defines the weighted average of the Job Performance Measures and the associated questions.

Safety Evaluation: This change does not affect plant equipment or safety barriers, either physical or operational. This change reflects the current regulatory guidance for the subject requalification examination. This change does not affect accidents or malfunctions of equipment important to safety previously evaluated in the USAR nor does it reduce any margin of safety defined by the Technical Specification Bases.

SAFETY EVALUATION: 90-SE-086 -092,-094 Revision: 0

Title: ISI Program Plan Responsibility Transfer

Description: USAR Section 17.2.10.4 describes the responsibilities for the Inservice Inspection (ISI) Program and USAR Section 13.1.1.2.2 describes Nuclear Plant Engineering as having the responsibilities for the ISI Program. Nuclear Plant Engineering is transferring the control of the ISI Program Plan to Results Engineering. These USAR Sections are being changed to reflect the new responsibilities.

Included with the ISI Program responsibility transfer is the creation of ADM 05-119, which prov des a description and control mechanism for a new document WCRE-07, "ISI Program Plan Document".

Safety Evaluation: This change is an administrative change, it does not physically change any plant equipment or methods used to examine or test equipment important to safety. Transferring the ISI Program Plans does not affect any accidents or malfunctions evaluated in the USAR, nor will it reduce any margin of safety defined by the Technical Specification Bases.

SAFETY EVALUATION: 90-SE-087 Revision: 0

Title: Temporary Isolation Of Fire Protection Jockey Pump

Description: This temporary modification provides a means of maintaining Fire Protection (FP) System header pressure by using a jumper from the Service Water (SW) System instead of using the FP System jockey pump. The jumper will consist of a 1 inch hose of reasonable length and a check valve at the Fire Protection end. The jumper will be installed from the B Service Water Strainer Drain Valve, 1WS103, to the Fire Protection Header Drain Valve, 1FP023A. The jockey pump will be isolated for maintenance.

Safety Evaluation: The jockey pump takes suction from the SW System and discharges to the FP System. It maintains the FP System pressure at greater than 80 psig during low or no flow conditions. When the system pressure drops to 75 psig, the electric fire pump starts. When the system pressure drops to 70 psig, the diesel driven fire pump starts.

The temporary modification does not change the operation of the Fire Protection System. There is no increase in the probability of occurrence and the consequences of an accident or maifunction of equipment important to safety previously evaluated in the USAR.

There are no unique or different challenges to equipment important to safety so there is no possibility that an accident or malfunction of equipment important to safety different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

SAFET" MULL TION: 90-SE-093 Revision: 0

Ticle: Dienel from Tomperature Monitoring Procedure

Descriptions The subject temporary procedure starts and runs Emergency Olesel Generator (EDG) A for the purpose of monitoring diesel room Remperature while diesel Generator Ventilation Supply Fan CGMOIA is in the pull-to-lock (FTL) position. This procedure limits high temperature exposure to equipment in the EDG A room lelow the Technical Specification limit of 119 degrees F. If the room temperature reaches 115 degrees F, the Mentilation System will be returned to normal operation. Allowing EDG A to operate with fan CGMOIA in PTL and restricting its operation to a toom temperature below the Technical Specification limit will not have any adverse effects on any operable or inoperable equipment.

Safety Evaluation: The conditions of operability of EDG A as covered by the Technical Specifications will not be changed since the Trap A Ventilation System will be made operable if the room temperature reach a the upper limit of 115 degrees F. There is no increase in e_{λ} probability of accurrence and the consequences of an accident or malfunction of equ pment important to safety previously evaluated in the USAR.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

The Train A Ventilation System will be returned to normal operation prior to the high temperature limit being exceeded. Therefore, no reduction in the margin of safety is defined in the bases for any Technical Specification is presented.

SAFETY EVALUATION: 90-S'2-095 Revision: 0, 1

Title: Temporary Modifileation Condensate Dissolved Oxygen Reduction

Description: This temperary modification introduces a small controlled amount of main steam into the high pressure condenser sparging manifolds in an effort to reduce condensate dissolved oxygen. A sparging flow path is established from the 3 inch main steam sparging lines via the 1 inch warm-up lines to the sparging manifolds.

The 3 inch main steam spurging isolation values are normally closed by design and are not affected by this modification. Sparging via these 3 inch values, as provided by design, is not desired. The 1 inch warm-up line orifices (ADF035 and ADF038) are removed from the lines and

repleced with stainless steel spicers of the same thickness as the original orifices. Sparging flow is controlled through the 1 inch warmup lines by way of the 1 inch manual valves located on either side of the orifices.

Safety Evaluation: The 1 inch warm-up lines tie into the main steam sparging lines, which are downstream of the Main Steam Isolation Valve (MSIV) in the Turbine Building. This portion of the main steam piping is not required for safe shutdown of the reactor following a safe shutdown earthquake or design basis event. The functional integrity of the MSIV, Power Operated Relief Valve, and the fire spring loaded safety valves with the lines are not affected by the removal of the flow orifices and installation of the spacers. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

Replacing the flow orifices with the stainless steel space; a maintains pressure rating integrity of the lines affected. There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined by the bases in any Technical Specification.

SAFETY EVALUATION: 90-SE-096 Revision: 0

Title: Procedure For Winter Operation Of Main Turbine And Generator Lube Oil Chiller

Description: This procedure change provides a load on the Main Turbine and Generator Lube Oil Chiller in service during winter operation to prevent it from tripping. The subject procedure change fails open the hot water modulating control valves to the heating coils in the supply air duct of the Fuel, Control, and Auxiliary Building normal supply units to induce a load on the chiller. The procedure change will al o remove the normal cooling mode cut off and decrease it to 0 degrees F.

The hot water modulating control values are not important to safety and normally fail open. In the configuration introduced by the procedure, the system controls will function per design to maintain a constant discharge air temperature by modulating the flow of chilled water to the cooling coil downstream of the heating coil.

After failing open the modulating control valve, the procedure provides for manual throttling of the hot water flow to the heating coils (by use of a downstream control valve) in order to maintain normal building temperatures. Building temperatures are monitored at least twice an operating shift and adjustments can be made as necessary. Freeze protection of the coils, provided by normal design to isolate the supply air intake and trip the supply fan when air temperature downstream of the heating coil reaches 40 degrees F, remains in effect.

Safety Evaluation: The subject equipment affected by the procedure is non-safety related and provides no emergency function. Previous accident evaluations did not take credit for the existence or operation of this equipment. Therefore, the frequency of the evaluated accidents and the consequences thereof are not increased. Equipment important to safety will not be exposed to any temperatures which could cause a malfunction, nor will equipment be actuated, challenged or degraded by the subject procedure actions. Therefore, equipment malfunction probability and consequences are not increased.

A different type of accident or malfunction is not created because the physical and operational safety barriers are not exposed to a new, different, or unique variable which could create a different or unevaluated response or resultant condition. The seismic qualifications and operating conditions of equipment important to safety also remain unaffected.

The temperature limits discussed in the Technical Specifications will be maintained because room temperatures will be monitored twice a shift. Safety-related equipment will not be exposed to temperatures beyond their qualification, therefore the margin of safety as defined in the bases for any Technical Specification is not reduced.

SAFETY EVALUATION: 90-SE-098 Revision: 0

Title: Safety Injection Pump Recirculation Line Heat Tracing Ambient Temperature Switch Temporary Modification

Description: This temporary modification installs a jumper to simulate operation of the ambient temperature switch for the heat tracing on piping BN-03-HCD-4. This piping provides a recirculation flow path for Safety Injection (SI) pumps as well as a test flow path for the SI and Containment Spray Systems back to the Refueling Water Storage Tank (RWST).

The USAR states that the RWST exposed conessential piping is provided with electrical heat tracing for freeze protection, as part of an automatic heater system. Use of a jumper to bypass an inoperable ambient temperature switch to energize heat tracing defeats the automatic operation of the heat tracing.

Safety Evaluation: Installing a jumper to simulate operation of the ambient temperature switch for nonessential piping to the RWST will not

affect the initiators of previously evaluated accidents. This modification maintains freeze protection thereby ensuring the SI pump miniflow line is operable. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

Assessment of the installation of a jumper to simulate operation of an ambient temperature switch for heat tracing to nonessential RWST piping has concluded that there is no possibility of creating a different type of accident or malfunction of equipment important to safety than previously evaluated in the USAR.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

SAFETY EVALUATION: 90-SE-099 Revision: 0

Title: Control Of Nitrogen Flow Path Into Main Condensers Temporary Procedure

Description: This temporary procedure allows the introduction of a controlled amount of bottled nitrogen into the Main Condensers via the drain valves located on the condensate pump recirculation lines and/or the main feedpump exhaust lines.

The drain values on the recirculation lines are located downstrear of the recirculation isolation values while the drain values on the exhcust of the main feedpumps are downstream of the first stage startup drain isolation values. The recirculation values are closed under normal operating conditions and are required to open during minimum pump flow situations. The first stage startup drain isolation values are also closed under normal operating conditions and are only required to be open during startups.

Safety Evaluation: All postulated accidents, scenarios, and consequences stemming from, or possibly caused by, the introduction of nitrogen to the Main Condensers via the subject drain valves are enveloped within the loss of condenser vacuum analysis which has been previously ovaluated in the USAR. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined by the bases of any Technical Specification.

SECTION III

CORRECTIVE WORK REQUEST DISPOSITION: 01618-90 Revision: 1

Title: Service Water Cross Connect Valve

Description: This modification allows for the use of 39 flange studs for the connection of Essential Service Water A/Service Water Cross Connect Valve EF HV0025, one stud less than is designed. There is no specific reference in the USAR to the number of flange bolts required for each flange, however standard engineering practice assumes that all the bolts will be inserted in each flange. In addition, USAR Chapter 9 describes the seismic analysis which is applicable to this proposed modification.

Safety Evaluation: The evaluation of this proposed modification has shown that the performance of this flange or of the Essential Service Water System is not impacted by the removal of one out of 40 bolts in the flange for valve EF HV0025. The stresses on the remaining 39 bolts during a seismic event are well below those allowed. In addition, the ability of the flange to seal is not impacted. Therefore, there are no accidents or malfunctions of equipment important to safety which may be affected by this proposed change.

There is no possibility that an accident or malfunction of a different type than previously evaluated in the USAR may be created. All seismic loads .emain within allowable limits.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

CORRECTIVE WORK REQUEST DISPOSITION: 01497-89 Revision: 2

Title: Use-As-Is Thermal Relief Valve Lockwire

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Description: It was discovered that 32 thermal relief values used a lockwire on the spindle nut instead of a cotter pin. According to the vendor, Grosby Nuclear Values, a cotter pin is the correct part but the values may have been shipped with a lockwire instead. Grosby communicated that there is no technical concern with the lockwire as the cross-sectional area and strength of material provide essentially the same performance. This disposition states that the lockwire may still be used with a possible replacement with the designed cotter pins in the future.

Safety Evaluation: The use of the lockwire has been judged based on its size and material versus the diameter of the hole in which it fits to achieve essentially the same function as a cotter pin. There is no

increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety.

The valves remain the same in form, fit, and function, so there is no possibility of a different type of accident or malfunction than has previously been evaluated.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

CORRECTIVE WORK REQUEST DISPOSITION: 01698-90 Revision: 0

Title: Insertion Of Stainless Steel Filler Rod Into Fuel Assembly

Description: Fuel assembly E32 was identified as having a failed rod, D09, during the fuel inspection following Cycle 4. The failed rod will be replaced with a stainless steel filler rod as allowed in the Technical Specifications.

Safety Evaluation: The effects of the stainless steel rod were evaluated for the Westinghouse prepared non-Loss Of Coolant Accident (LOCA) safety analysis results in the Cycle 5 Safety Evaluation and was found to have no significant effect since the Cycle 5 safety analysis design parameters remain valid. He Wolf Creek Specific Accident Analyses, Steam Generator Tube Rupture and the Boron Dilution Event also experience no significant effect due to fuel rod replacement with the filler rod since the Cycle 5 safety analysis parameters remain valid. The presence of the stainless steel rod has a negligible effect on the design kinetics parameters, control rod worths, core peaking factors, local power peaking factors, and peak linear power levels. The core kinetic parameters and control rod worths/requirements remain the same as those given in the Cycle 5 Reload Safety Evaluation. Thus the occurrence and consequences will not increase for non-LOCA events.

The occurrence and consequences are also not increased for LOCA events. The insertion of a stainless steel filler rod in the Cycle 5 core will have a negligible effect on the peak cladding temperature for a hypothetical LOCA. Since the filler rod is a non-heat generating rod, the rod average power will increase 0.0022 as stated in Cycle 5 Safety Evaluation. The evaluation of the effect of this change predicted an insignificant change in the calculated peak clad temperature. Therefore, the LOCA analyses described in the USAR continues to be applicable for Cycle 5 redesign.

The replacement of a fuel rod with a stainless steel filler rod will not increase the frequency at which equipment important to safety is actuated. The replacement also does not alter the manner in which equipment responds once required to actuate. The replacement will not degrade the pe formance of any safety system assumed to function in the accident analyses. Therefore, the probability of occurrence and the consequences of a malfunction is not increased.

The fuel assembly with a stainless steel filler rod satisfies the same design criteria as other fuel assemblies, and replacing the failed fuel rod with a filler rod protects the core by removing the damaged rod from the core. The change also protects the core from exceeding safety limits given an accident or operational transient due to the failed fuel rod. Therefore, there is no probability that an accident or malfunction of equipment important to safety of a different type than evaluated previously in the USAR may be created.

The reconstituted fuel assembly satisfies the same design criteria as the other fuel assemblies and its use will not result in a change to existing safety criteria or design limits. Therefore, this change does not reduce the margin of safety.

CORRECTIVE WORK REQUEST DISPOSITION: 01962-90 Revision: 0

Title: Residual Heat Removal Flange Use-As-Is

Description: This disposition will allow for the use of two nonconforming nuts in Flange FE619 of the Residual Heat Removal System. Specifically, the nuts do not meet the requirements of ASME Section III, 1974 Edition, Summer 1975 Addendum.

The requirements of ASME II, 1974 Edition, Summer 1976 Addendum have been reviewed by engineering and meet the intent for the given application. Therefore, the proposed change will have no effects on the system and will not violate any requirements of the USAR.

Safety Evaluation: This change has no effect on the sealing capacity of the flange or on the acceptable seismic loadings. Evaluation of the stresses on the subject flange indicated that if the subject bolts were to fail, the integrity of the flange would remain. Therefore, there is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety.

There is no possibility that an accident or malfunction of equipment important to safety of a different type in in evaluated previously in the USAR may be created.

The bases . the Technical Specifications do not address specific seismic margins, but do describe compliance with ASME code. The replacement of the two nuts in question will not increase the stress imposed on the remaining bolts, even if the nuts were to fail. Since the evaluated seismic loads remain within acceptable limits, there is no impact on the main of safety.

CORRECTIVE WORK REQUEST DISPOSITION: 02195-90 Revision: 0

Title: Loose Object Evaluation

Description: A loose object, size and type characterized as a nickel coin, was detected in the lower reactor vessel. After unsuccessful efforts to recover the object, it will remain unrecovered and assumed missing in the Reactor Coolant System.

Safety Evaluation: The effect of the loose object was evaluated for the Westinghouse prepared non-Loss Of Coolant Accident (LOCA) analysis results and was found to have no significance since the saf ty analysis design parameters remain valid.

The Wolf Creek specific accident analyses, Steam Generator Tube Rupture and the Boron Dilution Event also experience no significant effect since the safety analysis parameters remain valid. The presence of the loose object has no significant effect upon the Control Rod Drive Mechanism, Rod Cluster Control Assembly operation, Reactor Coolant Pumps, Reactor Internals and Steam Generators.

Should the object be within the fuel assemblies, it is possible that fuel rod fretting wear could result in fuel cladding breach. However, radioactivity levels in the RCS are monitored regularly per Wolf Greek Generating Station Technical Specification requirements. These guidelines will prevent the scenario from exceeding design basis radioactivity limits.

Because of the size and mass of the object it is determined that the effect on the integrity of the RCS is insignificant. Impact, wear, load and uplift forces were determined to have negligible impact to the RCS. Components evaluated include the Reactor Internals, Vessel, Reactor Coolant Pumps, Steam Generators, Pressurizer and piping.

The impact of the object on the Emergency Core Cooling System (ECCS), if swept from the RCS into the emergency sumps following a Design Basis Accident, has been evaluated. The pump suction line has a screen which would prevent the object from entering the ECCS. Therefore, the object would not have a negative impact upon the ECCS functions during an accident. The loose object will not degrade the performance of any other safety system assumed to function in the accident analyses. The probability of malfunctions and their consequences is not increased.

There are no unique or different challenges to equipment created by the loose part in the RCS, nor is there any degradation of equipment created

by the change. The impact of the loose part on potentially degraded plant performance is addressed by existing start-up and operating procedures. There is no possibility that an accident or malfunction of equipment important to safety of a different type than evaluated previously may be created.

The margin of safety as defined in the Technical Specifications will not be reduced as a result of the loose object. The existence of the loose object does not result in any existing design limit being exceeded. The RCS and auxiliary systems maintain the same design limits and safety criteria with the loose object. Therefore, the loose object does not reduce the margin of safety.

CORRECTIVE WORK REQUEST DISPOSITION: 02542-90 Revision: 6

Title: Safety Injection Pump Room Cooler Leakage

Description: This disposition involves leakage of Safety Injection Pump Room Gooler SGL09B. After inspection and return to service of the cooler during Refuel IV outage, a small leak was observed. It is hypothesized that this leave was not present prior to opening of the cooler, as the leak was covered by a nodule. The wall thickness required for retaining pressure in the tube is extremely small, thus the nodule provided sufficient mechanical strength to retain pressure. However, once the cooler was opened and the tubes dried for inspection, the nodules dried, thereby becoming more porous because of the loss of moisture. This porosity resulted in embrittlement of the deposit which caused it to fail upon pressurization, thereby resulting in the observed leak.

The evaluation considered the consequences of not repairing the room cooler. It was concluded that in the next operating cycle, potentially only 8 corrosion related leaks would have been possible. These leaks would be very small, resulting in less than 8 gpm of Essential Service Water (ESW) leaking out. The consequences of not repairing this cooler was then correlated to all the room coolers (total of sixteen).

Based on this correlation, it is concluded that adequate rationale exists for allowing plant operation prior to inspecting the other room coolers. Based on the results of the inspection of cooler SGL09B, which was selected as indicative of all room coolers, sufficient margin exists for safe operation until Refuel V outage.

Safety Evaluation: The heat transfer capabilities, flood analysis, equipment qualification, leakage, and design basis accidents associated with all of the safety-related room coolers have been reviewed. All of the coolers with or without leakage continue to meet design basis requirements. Therefore, there is no increase in the probability of occurrence and the consequences of a previously evaluated accident or malfunction of safety related equipment. There is no possibility that an accident or malfunction of equipment important to safety of a type different than any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

CORRECTIVE WORK REQUEST DISPOSITION: 02566-90 Revision: 0

Title: Flux Mapping Drive Frame Loose Coating Removal

Description: This disposition involves the removal of loose coating currently affixed to the flux mapping drive frame by use of hand tool cleaning methods.

Safety Evaluation: The flux mapping drive unit is non-safety related. Failure of the coating on this unit would result in paint falling towards the instrument tunnel and potentially ending up in the Floor and Equipment Drain System sump below. The failed coating would not flow to the Containment sumps. Any remaining fixed coating, if it were to loosen and fall off, would not affect any safety related system, structure, or component. Therefore, there is no increase in the probability of occurrence and the consequences of an accident or a malfunction of equipment important to safety.

Failure of coating on the flux mapping drive unit will not adversely affect any safety related function of the plant since the unit itself is non-safety related and any failed paint will not reach the Containment sumps. Therefore, the possibility of an accident or malfunction of equipment important to safety different than any evaluated previously in the USAR will not be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

CORRECTIVE WORK REQUEST DISPOSITION: 02606-90 Revision: 1

Title: Cable Tray Fire Barrier

Description: This disposition involves the installation of a fire barrier on cable tray 125U2B20. Drawings show a fire barrier present on the cable tray, but in actuality, the fire barrier had not been installed. Upon attempting to install the fire barriers, the threaded rods were not able to be installed within the 6 inch maximum total extension past the cover edges. This is caused by the design of the tray supports. This disposition allows for the field to deviate from the specification by installing all connecting thread rods an additional 1 1/2 inches beyond the 3 inches specified per side.

Safety Evaluation: The additional length will not be of a sufficient amount to cause an overstress of the unistrut nor will it cause an improper sealing of the fire barrier. The weight added is negligible and has been determined to be acceptable in regard to the peak seismic acceleration for the raceway supporting structures. Additionally, the modification will not affect the ability of the fire barrier to perform its intended function.

The associated cable tray is non-class IE yet the fire barrier provides separation (in accordance with IEZE 384) between class IE equipment such that in the event of fire, the consequences would be mitigated. Therefore, the subject design modification will not adversely affect the original design function of the raceway, structure or fire barrier. There is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

There is no possibility that an accident or malfunction of equipment important to safety of a type different than any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

CORRECTIVE WORK REQUEST DISPOSITION: 02689-90 02753-90 kevision: 0

Title: ESW Component Low Flow Acceptance

Description: These dispositions allow operation of Auxiliary Feed Pump Room Cooler SGF02B, Spent Fuel Pool Room Coolers SGG04A & B, and Air Compressors CKA01A & B, with less than design flow rates reflected in USAR Table 9.2-3 and the values provided in the licensing supplement to Flant Modification Request (PMR) 02149.

The flowrates in the USAR Table and PMR 02149 are design basis flow rates and include margins for heat removal and are for Microbiologically Induced Corrosion (MIC) control. It is evident that the flow rates through components SGG04B and CKA01B are less than the minimum flow rates required for effective MIC control. However, these flow rates exist only when the ESW pump is in operation. Essential Service Water (ESW) pumps are operated only for short duration, i.e. during Technical Specification surveillance testing and during a Design Basis Accident (DEA). Therefore, the flow rates are not considered to have any significant impact on the fouling rate of the affected component.

Safety Evaluation: The heat loads in the rooms or from the components have not increased and the ability to remove that heat is still sufficient to meet DBA requirements. Therefore, there is no increase in the probability of occurrence and the consequences of an accident or safety-related equipment malfunction.

The possibility of an accident or malfunction different from any evaluated previously in the USAR is not created.

The measured flows do not reduce the margins of safety as defined in the Technical Specifications.

CORRECTIVE WORK REQUEST DISPOSITION: 02749-89 Revision: 0

Title: Rosemount Pressure Transmitter O-Rings

Description: O-Ring kits and Molykote 55M O-Ring I bricant, which serve as an environmental seal for the electronics housing on the subject transmitters, were procured from Rosemount under specification J-301 and have been installed in Rosemount Pressure Transmitters BB-FT-0416, 0426, 0436 and 0446, which were supplied by Westinghouse per specification M-771.

Safety Evaluation: It has been determined that the Rosemount part numbers for the O-Rings and Molykote Lubricant are identical to those office ned in Instruction Manual M-771-00336-01 (I/M for BB-FT-0416, 0426, 0436 and 0446). Furthermore, Westinghouse has verified that no changes were made to the subject transmitters prior to shipping. The parks are identical to those specified by Rosemount. Therefore, previously evaluated accidents and malfunctions of equipment important to safety are not affected by this modification.

Because the O-Rings and Molykote lubricant are identical to those originally supplied, there is no possibility that an accident or malfunction of equipment important to safety of a different type than previously evaluated in the USAR may be created.

The allowance to use identical replacement sub-components procured under a different specification will not cause a reduction in the margin of safety as defined in the bases for the Technical Specifications.

CORRECTIVE WORK REQUEST DISPOSITION: 02767-90 Revision: 0

Title: Incore Thermocouple Sleeves

Description: This is a use-as-is disposition for the Lemo Incore Thermocouple Connector. Many of the male connectors are missing the outer sleeve. The wires were installed to perform the primary function of the outer sleeve which is to prevent separation.

Safety Evaluation: When the tie wires are properly installed, the missing sleeves will not prevent the connectors from performing their functions, nor will seismic or environmental qualification of the Lemo connectors be affected. Because the tie wire performs the function of the outer sleeve, there is no change in the probability of occurrence and the consequences of an "ccident or malfunction of equipment important to safety.

There is no possibility that an accident or malfunction of equipment important to safety of a type different than any evaluated previously in the USAR may be created.

The tie wire performs the safety functions previously performed by the outer sleeve. It will not reduce any margin of safety discussed in the Technical Specifications.

CORRECTIVE WORK REQUEST DISPOSITION: 02891.90 Revision: 0

Title: Heat Exchanger And Room Cooler Low Flow Acceptance

Description: This disposition allows operation of several heat exchangers and room coolers with less than design flow rates reflected in the USAR Table 9.2-3 and the values pr vided in the Licensing Supplement to Plant Modification Request (PMR) 0.2149. The flow rates in the USAR and PMR 0.2149 are design flow rates, including margins for heat removal, and are for Microbiologically Induced Corrosion (MIC) control. This disposition is effective until the components can be returned to their original design conditions.

Safety Evaluation: The function of the components remains the same at decreased flow, that is, the components retain sufficient capacity to remove the design basis heat loads. Therefore, there is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

Since the operation and function of the components are unchanged, there is no possibility that an accident or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

The decreased flows allowed assures operation in accordance with the Technical Specification, therefore, there is no reduction in the margin of safety.

CORRECTIVE WORK REQUEST DISPOSITION: 04196-90 Revision: 0

Title: Spent Fuel Pool Pump B Room Cooler Low Flow Acceptance

Description: This disposition allows operation of the Spent Fuel Pool Pump B Room Cooler SGG04B with less than the design flow rate reflected in the USAR Table 9.2-3 and the value provided in the Licensing Supplement to Plant Modification Request (PMR) 02149. The flow rate in the USAR and PMR 02149 is a design flow rate, including a margin for heat removal, and is for Microbiologically Induced Corrosion (MIC) control. This disposition is effective until the component can be returned to its original design conditions.

safety Evaluation: The function of the component remains the same at decreased flow, that is, it retains sufficient capacity to remove the design basis heat loads. Therefore, there is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

Since the operation and function of the component is unchanged, there is no possibility that an acciden' or malfunction of equipment important to safety of a type different from any evaluated previously in the USAR may be created.

The decreased flow allowed assure operat in accordance with the Technical Specification, therefore, there is reduction in the margin of safcty.

CORRECTIVE WORK REQUEST DISPOSITION: 05194-89 Kevision: 3

Title: Main Steam Isolation Valve Use-As-Is

Description: The air piston in the right hand air cylinder of the Main Steam Isolation Valve (MSIV) 4-way valve has a slightly roughened area at approximately the center of the piston where the communicating pin contacts it. This appears to be from deburring the machining nipple generated during manufacture. The roughened area effectively reduces the pin length by 5 mils. The width of the thimble wall at the seating surface is 55 mils wide. The thimble wall is 68 mils thick. The difference in these two dimensions indicates that the radial notch cut on the inside wall of the thimble is 13 mils. Therefore, a 13 mil reduction in pin length would be required before the seating surface or the hydraulic seating force would be reduced. Therefore, this 4-way valve and associated air piston is acceptable as is.

Safety Evaluation: The irregularity addressed in this disposition is incapable of affecting the operation of the 4-way valve. This irregularity is confined to the 4-way valve and does not affect the performance of the MSIV. It is not an initiator of any accidents evaluated in the USAR, therefore, it cannot increase their probability of occurrence.

There is no possibility that an accident or malfunction of a different type than previously evaluated in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

ENGINEERING EVALUATION REQUEST DISPOSITION: 90-JE-01 Revision: 0

Title: Emergency Fuel Oil Transfer Pump Butt Splice

Description: This disposition involves using a non-insulated Burndy YSV10 butt splice (with a Raychem Sleeve) as a replacement of an existing butt splice connecting the wires between the pothead and the high pressure lead connector on Emergency Fuel Oil Transfer Pumps PJEOIA and B. The replacement wire is to be safety related wire which is equivalent to the existing wire. The installation of the cable, termination lug, and butt splice is to be done in accordance with the design document.

Safety Evaluation: This change to the Emergency Fuel Oil Transfer Pumps (PJEOLA & B) involves specifying an acceptable butt splice and Raychem sleeve. In addition, an acceptable replacement wire has been delineated

in the event the wire between the pothead and connection is determined to be unacceptable.

The present design consists of a splice and nomex sleeved wire provided by the vendor. The use of a Burndy noninsulated butt splice with a nuclear grade Raychem sleeve will provide an improved connection that is more reliable and capable of withstanding the damp environmental conditions (within the conduit going to the transfer pumps). The wire has excellent thermal and electrical properties as well as outstanding resistance to moisture and chemicals and is equivalent to or better than the present nomex sleeved wire for the subject environment.

The safety related function of the subject butt splice and wire has been evaluated and accepted for the distribution of electrical energy to the transfer pumps to maintain onsite storage and transfer of fuel oil to the diesel engines. Previously evaluated accidents are unaffected and there is no increase in the probability of occurrence or the consequences of a malfunction of equipment important to safety.

These changes will not create the possibility of an accident or malfunction of equipment important to safety which is of a different type than any evaluated previously in the USAR.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

ENGINEERING EVALUATION REQUEST DISPOSITION: 90-XX-01 Revision: 0

Title: Rod Cluster Control Assembly Operability

Description: This disposition provides criteria concerning hydride swelling of the Hafnium Rod Cluster Control Assembly (RCCA) in the upper region. The criteria provides assurance that the functional requirement of free motion is maintained. The criteria is given for two regions of the rodlet, the dashpot and the upper region (above 22 inches). They are stated as the maximum allowed diameter in inches at the end of the next cycle.

In addition to the inspection for hafnium hydride swelling, the rodlets should be inspected for clacks. Axial cracks at bulge sites may be observed and are acceptable for continued use of the RCCA. If any cracking in a circumferential direction is observed, the RCCA should be considered for replacement.

Safety Evaluation: The impact of the hafnium hydride bulges decreases the clearance between the rodlets and the guide cards. The acceptance criteria is set to maintain a 10 mil clearance and assure that the control rods continue to satisfy functional requirements. The Loss Of Coolant Accident (LOCA) and non-LOCA transients sensitive to rod drop time or reactivity insertion rate were evaluated. In each case, the consequences of the USAR analysis were not increased, even when the Technical Specification rod drop time was increased by 0.3 seconds. There is no increase in the probability of occurrence or the consequences of an accident involving a stuck control rod or change in control rod drop time as previously evaluated in the USAR. There is also no impact on the safety analysis for malfunction of control rods evaluated in the USAR.

The acceptance criteria provided with the disposition are designed to assure the control rods continue to satisfy functional requirements and to preclude the occurrence of any failure mode not previously evaluated. The possibility an accident involving a control rod or a control rod malfunction of a different type is not created.

The margin of safety as defined in the bases for any Technical Specification is not reduced. The control rods must still meet the rod drop time specified in the Technical Specifications.

ENGINEERING EVALUATION REQUEST DISPOSITION: 90-XX-02 Karision: 0

Title: Duct Work Fiberglass Insulation

Description: This disposition involves the use of Non-Quality (Non-Q) fiberglass insulation on the Heating, Ventilation & Air Conditioning (HVAC) Duct Work Systems in the Essential Service Water Pumphouse Building, Turbine Building, Fuel Handling Building, Radwaste Building, Control Building, Auxiliary Building, Diesel Building and Miscellaneous HVAC Systems. The material specification does not specify if the insulation is "Q" or "Non-Q". The material used during construction was "Non-Q" and installed "Non-Q".

Safety Evaluation: Although this insulation on hand in the warehouse is "Non-Q", it meets the design requirements set forth in the material specifications. This insulation serves no safety function as described in the systems' safety design bases. This insulation is not required to maintain the reactor in a safe shutdown condition or mitigate the consequences of an accident. Given the availability and conformance of the insulation material with specifications, there is no need for a "Q" rating for the HVAC application on these given systems. There is no increase in the probability of occurrence and the consequences of a previously evaluated accident or malfunction of equipment important to safety.

Since this insulation is identical to the original insulation, and will be installed per specification, types of accidents or malfunctions different from those evaluated in the USAR will not be created. The design basis as defined in the Technical Specifications have not been altered as a result of using this "Non-Q" insulation. No reduction in the margin of safety exists.

NON-CONFORMANCE REPORT DISPOSITION: N-182 Revision: 0

Title: Chlorine Sensors

Description: This disposition allows the chlorine sensors tested by Wolf Creek Nuclear Operating Corporation (WCNOC) to be qualified for outside air temperatures of down to -10 degrees Fahrenheit and utilization in a safety-related application. The sensors can be util/zed with outside air temperatures below -10 degrees Fahrenheit if a menual Control Room Ventilation Isolation Signal (CRVIS) is initiated.

Safety Evaluation: The chlorine monitor sensors were tested by WCNOC and were determined to meet all required parameters as the original unit. Therefore, the probability of occurrence and the consequences of an arcident or malfunction of equipment important to safety previously evaluated is not increased.

The sensors are not used for any other safety-related function. Therefore, the possibility for an accident or malfunction of a different type than any evaluated previously is not created.

No design change resulted from this disposition, therefore, the margin of safety as defined in the bases for any Technical Specification is not reduced.

NON-CONFORMANCE REPORT DISPOSITION: N-238 Revision: 0

Title: Oversized Essential Service Water Piping

Description: Plant Modification Request (PMR) 02149 was determined to include oversized piping on the Essential Service Water (ESW) to Ultimate Heat Sink Lines 223-HBC-30 and 224-HBC-30. The outside diameter exceeds the size tolerance of material specification SA-672. However, it was determined that the oversize condition does not affect the acceptability for use by PMR 02149.

Safety Evaluation: The subject piping material properties are unchanged. Fit-up and installation will meet code requirements. Dimensional changes meeting code criteria for offset and taper does not increase the probability of occurrence or the consequences of an accident previously evaluated in the USAR. The fluid flow, stress intensity for welds, and seismic analysis are unaffected. The dimension variances will not increase the probability of occurrence or the consequences of a malfunction previously evaluated in the USAR.

Material properties and fabrication tolerances are met. The subject pipe dimension variances do not create a different type of accident or malfunction than previously evaluated in the USAR.

The additional thickness does not reduce any safety margin. The corrosion tolerance of the ESW System is enhanced where this piping is installed.

NON-CONFORMANCE REPORT DISPOSITION: N-253 Revision: 0

Title: Chlorine Sensors

Description: This disposition allows the Wyle Laboratories Chlorine Sensors to be used for safety related application until October 31, 1990. The qualified date of usage was determined from past temperature records. It was found that the extreme minimum temperature ever recorded in Burlington, Kansas during the months April through October, is 13 degrees F. The qualification temperature for sensors provided by Wyle is 0 degrees F.

To provide assurance that the chlorine sensors are exposed to temperatures above 0 degrees F, when the outside temperature is below -7 degrees F, the temperature readings are to be taken every hour at the ductwork inside a chlorine monitor access door in the Auxiliary Building. If the temperature in the duct falls below 0 degrees F, then a manual Control Room Ventilation Isolation System shall be initiated.

Safety Evaluation: The chiorine sensors are used to detect the occurrence of a chlorine gas release and have been qualified to operate within a specified temperature range with the current setpoint. This disposition assures that their qualification remains applicable for the current use. There will be no increase in the probability of occurrence and the consequences of a previously evaluated accident or malfunction of equipment important to safety.

There are no different types of accidents which can be associated with the sensor installation and because the equipment will operate within the temperature limitations, a different type of equipment malfunction will not be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

PROCUREMENT EVALUATION REQUEST DISPOSITION: 900141 Revision: 0

Title: Carrier Compresso: Heater Bracket Identifier

Description: Heater brackets for Carrier Compresso. Components on Air Handling Units SGK04A/B and SGK05A/B could not be verified in any Wolf Creek Generating Station design documentation. Flakt-Bahnson Inc., the equipment supplier, was consulted concerning the validity of the bracket identifier. A valid identifier was supplied later by a representative of Flakt-Bahnson.

Safety Evaluation: This parts classification has been determined and documented on a telecon to be an identical replacement part and associated part number for the heater bracket on carrier compressor units. No accidents or malfunction: previously evaluated in the USAR are affected by this part review and approval, nor is there a newly created accident or malfunction. No reduction in the safety margin exists.

PROCUREMENT EVALUATION REQUEST DISPOSITION: 900220 Revision: 0

Title: Dripwell Gasket Thickness Change

Description: This disposition involves the continued use of the Dripwell Gasket for Masoneilan Qualified Air Pressure Filter-Regulators 74-102 and 74-109. The manufacturer, Dripwell Gasket, increased the thickness. There has been no change to fit, form, function, or material. Use of this gasket has been approved.

This Dripwell Gasket maintains an air pressure boundary between the Dripwell Tube and the Dripwell Cap. The Air Pressure Filter-Regulator function is to filter moisture, oil and solid particulates from the sir systems to the valve actuators and to regulate the pressure to the valve actuators. These gaskets, filter-regulators, valve actuators and valves are safety-related.

Safety Evaluation: The only credible mode of failure is loss of sealability. Loss of sealability would allow the air pressure to the valve actuators to become unregulated, possibly leading to valve actuation failure. The vendor has stated that torque values are unchanged, and assuming proper installation, the replacement gasket will perform as well as the replaced gasket. Given that its functionability has not changed, the thickness change will not increase the probability of occurrence and the consequences of pertinent safety-related valve malfunctions. There is no possibility that an accident or malfunction of equipment important to safety of a type different than any evaluated previously in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

UNREVIEWED SAFETY QUESTION DETERMINATION: 90-024 Revision: 0

Title: Cycle 5 Reload Design

Description: As a result of Cycle 4 nuclear fuel depletion, the fuel was shuffled and fresh fuel was added to the core for Cycle 5 operation.

Safety Evaluation: The Cycle 5 reload design was performed in accordance with Nuclear Regulatory Commission (NRC) approved methodology. Based on this methodology, those accidents analyzed in the Wolf Creek Updated Cafety Analysis Report which could be affected by this fuel reload have oeen reviewed and the review is documented in the Cycle 5 Reload Safety Evaluation. In all cases, it was found that the effects of this reload are accommodated within the conservatisms of the applicable safety analysis.

The reload safety related parameters were bounded by previous analysis or the parameter was evaluated and determined that the result had no adverse effect on the accident analysis in the USAR. Therefore, the USAR safety analysis remains valid and the probability of occurrence and the consequences of a new or previously evaluated accident are not increased.

The Cycle 5 reload design will not increase the frequency at which equipment important to safety is actuated to protect the reactor core. The reload design also does not alter the manner in which equipment responds once required to actuate. The reload design will not degrade the performance of any safety system assumed to function in the accident analysis in order to mitigate the consequences of an accident. Therefore, the probability of occurrence or the consequences of a malfunction of equipment important to safety is not increased.

The possibility of a different type of accident or equipment malfunction is not created because there are no unique or different challenges to equipment created nor is there any unique degradation to equipment important to safety expected by operation of Cycle 5 design.

The margin of safety as defined in the Technical Specifications is not reduced as a result of the Cycle 5 reload design. The accident analyses establish the safety limits on which the Technical Specifications are based. The reload sensitive parameters have been evaluated and found to be bounded by the results in the USAR.

UNREVIEWED SAFETY QUESTION DETERMINATION: 90-004 Revision: 0

Title: Changes In Peak Clad Temperature As Evaluated For The LB LOCA And SB LOCA Events For WCGS

Description: Westinghouse has revised the Emergency Core Cooling System (ECCS) Evaluation Models and Computer Codes used for the Large Break Loss Of Coolant Accident (LB LOCA) and Small Break Loss Of Coolant Accident (SB LOCA) analysis. Changes in plant configuration have also necessitated a re-evaluation of the Peak Clad Temperatur (PCT) for the LB LOCA and SB LOCA events as analyzed for Wolf Creek Generating Station. These cumulative changes to the PCT result in the licensing basis PCT for the SB LOCA and LB LOCA being increased by +167.6 degrees F to 1957.6 degrees F and +69.5 degrees F to 2169.5 degrees F respectively.

Safety Evaluation: The ECCS Evaluation Model changes/corrections made by Westinghouse are modeling changes that do not affect the causes or consequences of postulated accident sequences. The performance of equipment is not affected, therefore there is no increase in the probability or consequences of a malfunction of safety related equipment.

Changes in evaluation models/computer codes used for analysis do not present any unique or different challenges to equipment and remain bound by current safety analysis limits. Therefore, there is no possibility that an accident or malf nction of equipment important to safety of a type different than any previously evaluated in the USAR is created.

The margin of safety as defined in the bases to any Technical Specifications will not be reduced as the USAR analyses remain within design and regulatory limits. The licensing basis PCT for the SB LOCA and LB LOCA are increased by +167.6 degrees F to 1957.6 degrees F and +69.5 degrees F to 2169.5 degrees F respectively, however these increases in PCT are not considered to be a reduction in margin of safety as defined in the bases for any Technical Specification because the PCT limit of 2200 degrees F is still maintained.
USAR CHANGE REQUEST: 89-016 Revision: 0

Title: Ultimate Heat Sink Sedimentation Values

Description: This USAR Change revises the maximum allowed Ultimate Heat Sink (UHS) sedimentation rates for one and two units. The sedimentation values were previously based on an estimated rate which is not the actual rate of sedimentation.

Safety Evaluation: The USAR revisions replace 40-year estimated sedimentation values with actual limiting sedimentation values for the UHS. Sedimentation of the UHS is measured and evaluated yearly. Replacing estimated UHS sedimentation values with actual limiting values will not increase the probability of occurrence and the consequences of an accident or malfunction previously evaluated in the USAR.

This change does not involve a physical change to any plant structure or component. An accident or malfunction of a different type than previously evaluated in the USAR is not created.

Listing the actual limiting condition in place of an estimated value will not reduce the margin of safety.

USAR CHANGE REQUEST: 89-029 Revision: 0

Title: Instrumentation & Controls Shop Preaction Sprinkler System Description Correction

Description: This USAR change corrects the description of operation for the preaction sprinkler system protecting the Instrumentation and Controls (I&C) shop. The activation of an ionization detector or manual pull station trips the deluge valve directly and does not bleed off supervisory air.

Safety Evaluation: The proposed USAR Change involves a correction of the description of operation for the I&C shop preaction sprinkler system. This is a document correction only and will not affect a previously evaluated accident or malfunction.

USAR CHANGE REQUEST: 90-002 Revision: 0

Title: Hydrogen Recombiner Purge Line Drain Additions

Description: This USAR change involves the changing of Figures 9.3-5 sheet 13) and 11.3-1 (sheet 2) in support of Plant Modification Request 00944. The modification involved the addition of a drain at the low point in each of the hydrogen recombiner purge lines to help prevent carry of r into the gas analyzer rack. Also, incomplete piping class identifiers were corrected to reflect the proper as-built configuration which is a documentation change only.

Safety Evaluation: This is a document change only, the physical change has previously been evaluated. Because this is only a document change and the actual modification was to non-safety related equipment. Previously evaluated accidents and malfunctions remain unaffected.

USAR CHANGE REQUEST: 90-020 Revision: 0

Title: Thermal And Hydraulic Analyses of Spent Fuel Pool

Description: USAR Sections 9.1A.4, "Incell Thermal and Hydraulic Analyses" and 9.1A.5, "Spent Fuel Pool Bulk Temperature Analyses" were revised as a result of revisions to the subject analyses. The subject analyses were recalculated to consider the increased decay heat loads produced in changing from the 12 month to the 18 month fuel cycle.

Safety Evaluation: Accidents previously evaluated in the USAR include the two hour loss of Spent Fuel Pool (SFP) cooling and the heat exchanger derating for post Loss of Coolant Accident conditions. These accidents have been re-evaluated and it was determined that the increased decay heat loads created by the change in the fuel management program will not cause systems to be operated outside their design limits.

The change will not prevent, change, or degrade actions assumed in an accident, and will not have an affect on the radiological consequences of any accident described in the USAR. The increased decay heat loads do not present any different impact on the system and components of the SFP from those previously considered in the USAR. There is no increase in the probability of occurrence or the consequences of a malfunction of equipment important to safety.

Sufficient operating margin exists, the SFP bulk temperature will still remain below the design limits and the types of failure modes considered

in the USAR are not changed. Therefore, no different type of accident or malfunction is created.

The margin of safety as defined in the bases for the Technical Specifications is not reduced. The changes impact the decay heat loads created by the increased fuel cycle length from the values presented in the USAR. The design limits for the SFP bulk temperature listed in the USAR are still met under the increased decay heat loads.

USAR CHANGE REQUEST: 90-021 Revision: 0

Title: Quality Department Title Change

Description: This USAR change corrects the title in USAR Section 17 from Vice President Quality to Director Quality to reflect the present Quality Department organization.

Safety Evaluation: The changes are title changes only and do not cause the program or any controls to change. The effore, previously evaluated accidents and malfunctions are unaffected.

USAR CHANGE REQUEST: 90-026 Revision: 0

Title: Conduct Of Operations Changes

Description: This change request reflects organizational changes submitted from the Quality, Operations, and Training departments as well as changes initiated by Licensing.

Safety Evaluation: These changes address reporting and title changes only. They are administrative in nature and do not constitute a change to systems, components or methods of operation. Therefore, this change does not affect any accident or malfunction of equipment important to safety previously evaluated in the USAR. USAR CHANGE REQUEST: 90-047 Revision. 0

Title: Boron Dilution Event

Description: This is a revision of the Boron Dilution Event Accident Analysis bases in order to accommodate Cycle 5 design and future 18 month, non-positive Moderator Temperature Coefficient reloads.

Safely Evaluation: The revisions to the USAR do not affect the frequency of previously evaluated accidents since the changes involved are only analytical revisions to the safety analysis bases as a result of Cycle 5 design. The Technical Specifications require a sufficient shutdown margin. The initial boron concentrations presented in the USAR are being revised to account for the fuel Cycle 5 design to maintain these required shutdown margin limits. The analytical revisions show that should the worst case condition of an uncontrolled boron dilution event occur at beginning of core, the required shutdown margins are maintained. Therefore, the consequences of any accident described in the USAR is not increased.

No changes are being made to equipment important to safety. All associated structures, systems and components still meet their design specifications. These changes will not affect the plant's response to any malfunction of equipment important to safety, therefore, there is no increase of the probability of occurrence or the consequences of a malfunction of equipment important to safety.

The changes being made as a result of the fuel Cycle 5 design are used only to establish bounding conditions representative for Cycle 5 and future reloads. Since there are no changes being made to the structures, systems, or components involved here, no new type of accident or malfunction other than those presented in the USAR are being created.

As previously stated, the minimum shutdown margins are still being met by this change. Since these margins are still met, the margin of safety as defined in the Technical Specifications has not been reduced.

USAR CHANGE REQUEST: 90-066 Revision: 0

Title: Fuel Building Uppe. Level Unit Heater Discrepancy

Description: This USAR revision reflects the actual number of Upper Level Unit Heaters (2), Heat Capacity (260,000 BTU/hr) each, and Hot Water Flow Rate 13 gpm each in the upper level of the Fuel Building: Safety Evaluation: The subject components are non-sifety related and non-seismic. There is no physical change made to any plant doupment, this change is a clarification only. There is no effect on any accident analysis or any previously evaluated malfunctions of safety-related equipment. There is no reduction of gny margin of safety.

USAR CHANGE REQUEST: 90-097 Revision: 0

Title: Addition Of Level Indicator To Fig. 5.1-1

Description: Plant Modification Request 00441 added an annunciator alarm for Reactor Coolant Pump Upper Bearing Lube Oil Reservoir Level. Figure 5.1-1 is being revised to reflect this addition.

Safety Evaluation: The subject modification is isolated from any safety related systems and does not affect the design or operation of any safety related systems. Therefore, there is no increase in the probability of occurrence and the consequences of an accident or malfunction of equipment important to safety previously evaluated in the USAR.

There is no possibility that an accident or malfunction of equipment important to safety of a type different from any previously evaluated in the USAR may be created.

There is no reduction in the margin of safety as defined in the bases for any Technical Specification.

USAR CHANGE REQUEST: 90-108 Revision: 0

Title: Safe Shutdown Clarification

Description: The purpose of this USAR Change (Section C.27.7.3) is to clarify the safe shutdown of the plant outside of the Control Room.

Safety Evaluation: The evaluation regarding the actual modification was reviewed and approved by the NRC and the associated modifications have previously been implemented. This review and approval is documented in SSER5, Section 9.5.1.5. This USAR change is a clarification of the modification only. Therefore, there is no affect on any accidents or malfunctions previously evaluated in the USAR nor is any margin of safety reduced.

USAR CHANGE REQUEST: 90-123 Revision: 0

Title: Turbine Driven Auxiliary Feedwater Pump Root Design Faramete: Clarification Notes

Description: This USAR change adds clarification notes to USAR Tables 3.11(B)-1 and 3.11(B)-2 to show the various calculated design parameters for the Turbine Driven Auxiliary Feedwater Pump Room (1331) under normal and abnormal conditions.

Safety Evaluation: This change involves the addition of notes and does not involve a change to the existing design parameters. Previously evaluated accidents and malfunctions remain unaffected and no reduction in any margin of safety exists.